Clarence Ng · Brendan Bartlett
Stephen N. Elliott

Empowering Engagement

Creating Learning Opportunities for Students from Challenging Backgrounds

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To Noël, Samuel, and Matthew

—Clarence Ng

To Irene and all the kids and their kids

—Brendan Bartlett

To Anita

—Steve Elliott

To all the teachers who persist at creating learning opportunities for children often assumed to not be engaged or not to care about learning and for all the future teachers who aspire to do the same. Your efforts make a difference for many.

—Clarence Ng, Brendan Bartlett,
and Steve Elliott

Foreword

A Tale of Two Cities

I Must Confess. I am a master of disengagement. Most of us are.

At first, we cannot control our distractibility and impulsive behaviors. But with age, opportunity, and practice our young developing brain learns to focus attention and foster engagement.

Our development doesn't stop there. With time, chance, and a bit of guile we develop a more dubious power. Our growing talent to be engaged is augmented by the knack of appearing engaged. Some of us become a Grandmaster of this more devious art.

For me, my skills in disengagement reached their pinnacle in a high school English class. Every day in this class, the same routine of Round Robin Reading repeated itself. One student read a few paragraphs, followed by another, and then another student. This practice snaked through the class starting at a front row, proceeding down it, and then proceeding up the next row.

This reoccurring time loop presented both an opportunity and challenge to my developing gifts as a "disengager." Each student was instructed to listen and read along, and the teacher watched her charges carefully to ensure compliance with this expectation. I am sure she suspected that I and others were not committed to these classroom practices. This manifested itself in her shifting her vantage point by moving her chair to different locations in the class. "Better to see you," she told us.

This situation required the development and use of a variety of strategies. My first ploy involved choosing a desk at the back of the class. I became adept at becoming invisible, at least from certain angles. Using the cover of the person in front of me, I ducked down and stayed that way. The beauty of this strategy is that it evoked the unstated but commonly known "not readily seen" law. If you are not visibly off-task or making a nuisance of yourself, then by default you are engaged and acting appropriately. This strategy was not foolproof, as I was not invisible from all vantage points.

I had to bring other strategies to bear when it became clear the teacher suspected something was amiss in my conduct. I put into play two seemingly robust tactics to

try to thwart her suspicions about my true intentions. I knowingly head-bobbed and eye-lifted at what I thought were appropriate times (whenever I heard her voice or a student ask a question). Sadly, these strategies did not always work and I became suspect number one, with the teacher pointedly asking me, "Are You Paying Attention?" At times like these, I relied on two other strategies: misdirection ("I am sorry, I dropped my pencil and lost my place.") or outright lying ("Yes Mam, I loved the way the author worded that part.").

My most vulnerable moment came when it was my turn to read. I had to know where we were in the book. Not an easy task when your mind is only partially focused on the current situation. This required special cunning on my part. I enlisted several of my running mates to help me out. We formed a pact to take desks across from each other, and to warn our fellow conspirators when their turn was a few places away. This allowed each of us to figure out where we were in the text before it became our turn to read. It also reduced the risk that one of us would fail to realize that we would soon need to read.

While the process of being unengaged at school can be quite effortless, my little blast from the past illustrates that it can be quite demanding too. In any form, lack of engagement has undesirable consequences. In my year in the English class described above, I cannot remember anything about the books read except that one book was titled *A Tale of Two Cities*. Years later, I read and loved this book. Disengagement in this English class did not seem like such a good idea upon further reflection.

Of course, I now realize that I must take responsibility for my misadventures in disengagement as a student. But in all fairness, some of my outings in what became my favorite high school pastime are suitably captured by the title of another great book—*A Confederacy of Dunces*. Too many of the classes I attended did little to promote my or any one's engagement.

My work in children's literacy over the last 40 years has made me especially aware of how critical engagement is to success at school and beyond. If students are not engaged, they learn less and develop negative attitudes about learning and schooling. This is not an outcome we want for our children.

Fortunately, we can help students become more engaged learners. This is not limited to our best students, but includes children who find school challenging as well as those with disabilities.

I Must Confess. All students need to become masters of engagement. Almost everyone agrees.

So How Do We Enhance Students' Engagement?

We have learned much during the last 50 years or so about what engagement involves, why students are unengaged, and how to promote engagement. This book on engagement by Clarence Ng, Brendan Bartlett, and Steve Elliott brings this information together in a useful and clear manner with a focus on those who are

most vulnerable: children who are from economically disadvantaged families as well as youngsters who are marginalized by society due to behavior, ethnicity, culture, gender, or disabilities. While this book speaks most directly to the needs of these students, its findings and recommendations apply to all students.

An essential ingredient in enhancing students' engagement is understanding what it is. In my English teacher's class, she assumed that I was engaged if I was not disruptive or I exhibited behaviors that suggested I was on-task. As Ng and his colleagues argue, this is not enough. This conceptualization does not take into account the cognitive and emotional aspects of engagement or the thinking, decision-making, and sustained effort required to make it happen and maintain it. Further, engagement occurs in specific contexts, typically populated by others who act as collaborators, distractors, mentors, or teachers. The value we place on engagement, the expectations we hold for it, and the ways we support it go beyond our local contexts though, as they are also shaped by a host of political, historical, institutional, societal, and cultural contingencies. Each of these factors must be taken into account if we are to enhance the engagement of all students, including those who are most vulnerable.

I also appreciated Ng and colleagues' attention to specific aspects of engagement including the fact that they viewed it as purposeful, focused, dynamic, fluid, situational, and malleable. They further stressed that it can involve power struggles between students and teachers. This was aptly illustrated in my willful decision to become disengaged during my English class. If educators and those who study learning view engagement in a too simplistic way, then our efforts to enhance it are likely to be limited. This is especially the case when working with those who are most likely to be disengaged.

Understanding what engagement is (or is not) is a good first step, but it is only that. We must know why it occurs. Ng and colleagues address this issue in a very interesting way. They focus much of their attention on opportunities to learn. They contend that students who experience various constraints and limitations are unlikely to be engaged if they are not provided genuine and meaningful opportunities for learning and engagement. This is an important idea, as it moves the focus beyond what the student is doing to include creating an environment where learning and engagement are more likely to occur. This theme and examples of this concept are built and expanded on throughout the book. I suspect I would have been more likely to be engaged in my English class if the teacher had created a more engaging environment.

In line with the basic theme that engagement is complex, involving individual responsibilities as well as the responsibility of educators to create classrooms where meaningful learning opportunities occur, Ng and colleagues do more than summarize the relevant research and provide useful recommendations. They provide concrete examples of these principles in action throughout the book. These examples cover a range of domains including reading, mathematics, and social skill development.

Ultimately, *Empowering Engagement* is about empowering students, particularly those who are most disenfranchised. I love this book, its approach, and its aims. I was engaged when I read it. I am sure you will be too.

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Clarence Ng and Brendan Bartlett

I would like to acknowledge the opportunity that the Learning Sciences Institute of the Australian Catholic University provided me over the years to collaborate and learn with a number of fine scholars and dedicated educators. This book reflects a lasting outcome of that opportunity.

Steve Elliott

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Stephen N. Elliott, PhD is an educational psychologist and the Mickelson Foundation Professor in the Sanford School of Social and Family Dynamics at Arizona State University. Steve has collaborated with numerous colleagues and students to author hundreds of research articles, books, and chapters focusing on ways to improve the social and academic performance of students at risk or with

disabilities. He is also the author of several widely used assessments of children's social emotional skills and academic enabling behaviors. Over the past 40 years, his contributions to psychology and education have earned him recognition as a Fellow in the American Educational Research Association and Senior Scientist in the American Psychological Association.

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Chapter 1
Engaging in Learning: The Challenges and Consequences for Students from Challenging Backgrounds

Engagement is important for education and development in a number of critical ways. First, it signifies a commitment to learning and often results in better achievement (Klem & Connell, 2004; van Rooij, Jansen, & van de Grift, 2017). When children and young people engage in an activity, it means that they are investing their time and energy in it. Without such effortful commitment, learning goals are jeopardized and learning outcomes improbable (Chi & Wylie, 2014). Second, engagement is important for social and personal development (Skinner, Pitzer, & Steele, 2016). Students' affective connection to school is associated with positive adolescent development (Debnam, Johnson, Waasdorp, & Bradshaw, 2014). When engaged with their learning, students often feel positive about their actions—and about themselves, and are more willing to become socially proactive. For example, by collaborating with others, students are less likely to develop deviant behaviors and drop out of school prematurely (Wang & Fredricks, 2014). Third, engagement is critical for the development of aspirations and academic decision-making, thereby opening up future opportunities (Abraham & Barker, 2015). It is virtually impossible for children to achieve a goal without having a plan to achieve it and action to work toward it (Wang & Eccles, 2012). A wealth of research evidence accumulated over the past several decades has provided convergent demonstration of just how critical the conceptualization of engagement and its influence are in our understanding of human endeavor (Christenson, Reschly, & Wylie, 2012; PISA, 2013). This evidence highlights the positive effects of engagement in so many different arenas. Notably, in the context of educational research, it has provided a concerted torchlight on the significant role of engagement in the learning process and associated learning outcomes.

Against this background, specific attention is required to examine the phenomenon of disengagement, why some children and young people are more likely to disengage from learning and therefore are less open to the benefits of quality learning and development (see studies by Blondal & Adalbjarnardottir, 2012; Smyth & McInerney, 2012; Verkuyten & Brug, 2003). We know that many of our young people who have disengaged from learning come from troubled or disadvantaged

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backgrounds and may have experienced difficulties fitting in and complying with the conventions of schooling that their peers handle better (McGregor & Mills, 2012). Some accumulate records of repeated suspension and exclusion from school, while others struggle to learn due to pre-existing learning difficulties (Kurz et al., 2014). Yet, against all odds, it is possible that these students may still engage throughout their schooling years, bringing joy and benefit to themselves, their families, and others as productive individuals and members of society. However, in reality, the greater likelihood is that without mediation, a significant number of them at best will engage at a rather superficial level in learning—or, at worst, will disengage completely from learning. They will have limited interest in schoolwork, lack diligence and persistence for learning tasks, and not apply the sustainable effort needed to succeed in establishing upward trajectories of mastery through educational opportunities. These students are often unable to regulate their learning, instead electing to utilize surface strategies quit readily when learning gets difficult. While some are passive in their disengagement, remaining silent, and acting in seemingly orderly ways, others are far more obvious in their rejection of engagement conventions, acting out with disruptive behaviors and creating persistent challenges to teachers and classmates. Consequently, many of these students not only perform at relatively lower levels than their peers but also disadvantage their classmates as a result of the disturbances created to the intended order of learning environments and opportunities. Many find ways of removing themselves from school through feigned illness, absenteeism, and truancy, while others quit school prematurely, resulting in far-fetching, negative consequences (Blondal & Adalbjarnardottir, 2012; Wang & Fredricks, 2014). Such consequences may take the form of social and economic corrosion, such as increasing exclusion and persistent unemployment. In short, a lack of engagement with and in schooling is a precursor to consequential lifestyle problems, behavioral maladjustment, societal disconnect and dropout, and impoverished well-being.

Children who are struggling with physical, social, and economic limitations may find engagement challenging. These children may suffer from learning disabilities, have experienced social exclusion, or be so busy dealing with poverty of economy, experience, and opportunity that there is little space for their school's agenda. Often school environments and learning opportunities, particularly through curriculum design and assessment practices, favor children who are capable, resourceful, and sufficiently prepared for schooling (Kurz, 2011). Schools are designed for learners whose needs are more aligned to the order of what schools conventionally do. It would seem some schools lack the resources and preparation to step beyond such conventions and enable students facing challenges to engage in school learning or institutionalized learning in a meaningful and efficacious way (Smyth & McInerney, 2012). A third, and more worrying possibility, is that in some cases, schools and teachers may have an entrenched and predisposing view that children with negative histories are inevitably and irretrievably disengaged. Some may even be inclined to look for signs that justify this deficit view without careful assessment of conditions that lead to disengagement and mediation that might alleviate it (Torff & Sessions, 2006; Valencia, 2010).

In the context of the twenty-first century, two major developments have posed additional challenges for these children and young people in relation to their engagement in learning. First, with the advance of computing and Internet technologies, children and young people are bombarded with information, ideas, opportunities, and entertainment. In this context, engagement with a school's agenda may become problematic. The question in a schooling context is not just about whether one is engaged or disengaged but also about what one is engaged in, for what purposes, and toward what outcomes. Choice and regulation are important considerations in conceptualizing what enables young people to face an array of daily opportunities for engagement, whether they are surfing the Internet for information, connecting with friends via social media, or looking up information to complete a school assignment (cf. Ng & Graham, 2017). Children coming from economically advantaged families are provided with access to the Internet and computing technologies. Not only are these children assured of access to these computing resources, but they also are likely to be provided with appropriate training regarding relevant strategies to guard against potential abuse and traps tantamount to using the Internet and to regulate their use in a manner which is conducive to learning. In contrast, children with backgrounds of economic disadvantage are less likely to have access to these technologies at home, and when they do, they may lack the required skills and strategies to use the Internet in ways that safely and beneficially guide their selections toward age-suitable and developmentally appropriate learning tasks (Leu et al., 2015).

A second feature of learning in and out of school in the twenty-fist century is an increased demand for collaboration, problem-solving, creativity, and critical thinking skills (Schleicher, 2011). The cognitive demands required to collaborate, problem solve, and think creatively and critically involve sustained attention and interactions with others and substantive content. Children from disadvantaged backgrounds may find it challenging to assert the required attention and persevere when confronted by a complex cognitive task. The OECD (2014), in its first international testing of creative problem-solving skills, concluded that disadvantaged students are twice as likely as their non-disadvantaged counterparts to fail to reach baseline performance. Many students from disadvantaged backgrounds may feel anxious about starting such learning activities because they lack resources, training, and exposure to motivate and empower them to work on cognitively demanding tasks with confidence. During the process, this type of unstructured learning requires constant monitoring and regulation which disadvantaged children and young people may find difficult. When they fail, or show signs of frustration, hesitancy, or withdrawal during attempts, blame is afforded to them by people who consciously, or otherwise, assume that they will not complete these tasks.

The likely outcome of such an engagement problem is that achievement gaps will begin to appear in children and young people's academic learning, and subsequently, consequential gaps will follow in their encounters and outcomes with employment and other opportunities in the workplace and social arenas. In response, many developed countries have commenced national testing to monitor and direct additional resources to help students who are falling behind (Lingard, Sellar, &

Savage, 2014). Associated with these national efforts are practices such as watering down the curriculum for these students and focusing solely or heavily on the basics. While such moves may seem logical, they are in fact counterproductive as they limit disadvantaged students' opportunities to learn and grow through advanced academic studies or to gain employment in fields that require the sophisticated professional knowledge and skills to which they have been denied access (Luke, 2012). Access is a necessary, if insufficient, condition of engagement, and from this perspective, a close look at the issue of learning engagement among children and young people coming from challenging contexts is warranted. The purpose is not only to promote and enable their engagement but also to ensure there is equitable access to opportunities in academic learning and the possibilities it opens to better futures which are conducive to engagement (Comber, 2016; Mills, Keddie, Renshaw, & Monk, 2017). If we fail to do this, our education system will continue to produce subclass graduates whose abilities to seize life opportunities will be limited due to inequitable support to engagement in school.

In this book, we focus on two groups of children and young people who experience learning challenges due to various limitations. These groups are those coming from low socioeconomic status (SES) families and young people who have been marginalized. These children and young people are facing limitations derived from pre-existing conditions involving economic and sociocultural factors that, without recognition and mediating support, act as impediments to the youngsters' active engagement in school. In this book, we discuss how they have experienced these limitations, how these conditions pose challenges to their learning engagement, and in what ways effective programs and practices can help sidestep these constraints to facilitate meaningful engagement. We draw from our research and experience with the goals of advancing understanding and educational success of students and young people who are disadvantaged as a result of their economic and sociocultural backgrounds.

Problems and Issues Facing Children from Economically Disadvantaged Families

Low socioeconomic status impacts negatively on students' achievement and learning. International comparative tests such as the Program for International Students Assessment (PISA) have provided empirical evidence indicating persistent and growing achievement gaps between economically disadvantaged students and their non-disadvantaged counterparts in the United States, Australia, and other major OECD countries (e.g., Masten et al., 2012). Aggravating this concern is the increasing number of children in major developed nations who live in poverty. For example, in Australia, over 730,000 children (17.4%) under 15 years were living below the nation's poverty line in 2016 (Australian Council of Social Service, 2016). The case in the United States is even more confronting. The 2015 data collected by the

National Center for Children in Poverty (NCCP) show that among all children under 18 years in the United States, 43% live in low-income families and 21% live in poor families. The extent to which our schools and teachers can address the adverse effects of poverty on education can be taken as an indicator of educational quality (cf. Connell, 1994).

While there are many conceptualizations and measurements of poverty (Hannum, Liu & Alvarado-Urbina, 2017), poverty, in general terms, undoubtedly poses obstacles to education and development. Research accumulated over the past several decades has documented the negative impacts of poverty on children and adolescents' health, cognitive development, psychological well-being, and educational outcomes (Berliner, 2013; Hill & Sandfort, 1995; Holliday, Cimetta, Cutshaw, Yaden, & Marx, 2014; Labella, Narayan, McCormick, Desjardins, & Masten, 2017; Luby et al., 2013; Noble et al., 2015). Also, poverty poses obstacles to engagement and learning (Guo & Harris, 2000; Jensen, 2013). Poverty and its correlates, such as unemployment and low parental educational level, beget different forms of difficulties that children and young people from poor families face in their immediate living environment, including crime and unsafe communities, drug and alcohol use, violence, unemployment, and attending under-resourced schools in nations where schools are funded by local taxes and where children attend their neighborhood school. Many poor children go to school without breakfast, which hampers their learning and concentration. Some have no lunch, and some of those who do are likely to have food that may be less nutritious and/or unhealthy. Expectedly, children who are exposed to these stressful conditions out-of-school carry their outcomes such as a compelling hunger or undernourishment into school and because of distresses this creates may find engaging in classroom learning difficult.

While there are children and young people who are resilient in the face of these difficulties and make effective adjustments, all are weakened by these challenging conditions and many are defeated by them. Corroborative personal accounts provided by these children and young people and those who work with them have highlighted the negative influences of poverty on engagement in learning and on learning outcomes (Robinson & Smyth, 2016). The accounts indicate that these students are less motivated to engage in schoolwork and are not prepared to participate in learning activities with which they are unfamiliar or where they believe they might look stupid in front of the class. Significantly, it is critical to recognize that education itself also "forms an integral part of human poverty" (Tilak, 2002, p. 204) and to a certain extent reinforces extant inequalities in social and economic arenas (Connell, 1994) through practices that fail to engage children and adolescents from economically disadvantaged backgrounds. A critical reflection on limitations and negative influences of existing educational practices is a necessary condition to developing new practices to promote and support learning and achievement as a way out of poverty.

Teachers through their pedagogical efforts can promote changes to alleviate the negative influence of poverty on educational opportunity. Comber (2016, p. 398) raised the vision of "hopeful enabling practices"; Munns (2007) promoted the "wonder of engaging practices"; and, following Moll, Amanti, Neff, and Gonzalez (1992)

and Zipin (2009) developed new practices based on the notion of "funds of knowledge." In Chap. 5, we discuss the issues of promoting reading engagement among low SES students who often find it hard to read in school where reading materials that interest them are limited and, more importantly, where classroom rules and norms governing their reading practices may not be conducive to promoting and sustaining their reading engagement. In Chap. 6, we discuss issues related to promoting disadvantaged students' academic aspirations for studying advanced mathematics. We highlight how classroom practices often fail to provide such support. Creating opportunities for reading engagement and aspirations for studying mathematics are imperatives in many developed nations for children who are living in poverty.

Problems and Issues Facing Marginalized Young People

An educational challenge in many developed nations is how to provide alternative education for children and young people who are marginalized from mainstream schools typically because of aberrant behavior but more generally because their needs have not matched well with what their schools have been able to provide. This is reflected in an observable trend of increased enrolments in alternative education programs.

Evidence from Australian and international studies about alternative education programs (AEPs) and young people whose individual positions are marked by poverty, marginalization, disability, or some intersection of these is reported specifically in Chaps. 7 and 8. There are factors that predispose some young people to difficulty in fitting easily and well with mainstream education, and many will need adaptations or alternatives better suited to accommodate their personal and school experience histories that typically are prejudicial and their sense of futures that are often negative and that characteristically are cloudy and confused.

Underlying the need to address this topic is that somehow, sometimes, some young people are recurrently poor in the life outcomes they achieve. They constantly fail as learners in school, at work, and in their personal and social relations. They do not flourish. Kieselbach (2013) theorized that susceptibility to such poor outcomes is connected to exclusion—a social condition at the extreme of personal disengagement. Specifically, in terms of employment, he characterized seven types of exclusion in adulthood that allow us to depict this susceptibility and illustrates what can go wrong when connection in a broader sense has been insufficient. In relation to chronically unemployed young people, he (Kieselbach, 2013, p. 19–20) regarded their susceptibility as being open to:

- Labor market exclusion where low levels of qualification, experience, and lapsed confidence restrict their possible areas of employment
- Submerged economy where irregular work and non-regulated payment become their only accessible employment option

- Economic exclusion through deepening poverty
- Institutional exclusion through lack of support and sometimes through over-dependency on institutional support
- Social isolation through shame and retreat from positively nurturing social networks
- Cultural exclusion in being unable to live according to socially accepted norms
- Spatial exclusion from living only in a subset of possible places—e.g., places where financially poor people are concentrated

We believe Kieselbach's deliberation also applies to education where susceptibility to poor outcomes might be represented as seven types of exclusion where vulnerable youth are at the nonstarter end of engagement with school and schooling:

- Continuing education and training exclusion where basic levels of knowledge, qualification, and lapsed confidence restrict their possible continuation in post-compulsory years of schooling and admission to higher education and training programs
- Submerged opportunity for academic identity where occasional academic successes and frequent off-task responses limit their accessible bases of recognition and self-worth constraining their perceptions of involvement in, and benefit from, learning opportunities that support efficacious attitude, skills, and knowledge development
- Intellectual exclusion where through deepening lag in knowledge and intellectual know-how, opportunities to learn are less likely to be recognized and more difficult to access;
- Social isolation through shame and retreat from positively-nurturing social and academic networks;
- Pedagogical and institutional exclusion where, through lack of realizable support in available pedagogy and institutional policies and practices, opportunities to learn are constrained in meeting the needs of assessment and other institutional agendas instead of those of the students, and social isolation where, through shame and retreat from positively nurturing social and academic networks, relational factors otherwise may promote students' engagement
- Cultural exclusion where, in being unable to live according to socially accepted norms of the educational system, school, and class, students see themselves and are seen by others as a pariah in learning settings
- Spatial exclusion where, from living and having schooling only in a subset of places, students' learning and education are limited in their scope

In Chaps. 7 and 8, we provide a detailed discussion of these issues associated with different forms of exclusion. In these discussions, our focus is to advance the notion of re-engagement that is critical in advancing second-chance education for marginalized students who have experienced repeated exclusion. Interestingly, a key feature of alternative education is the provision of social skills training which we discuss in Chap. 3. We draw on results derived from our research programs to

discuss practices in alternative education that are effective in promoting re-engagement for marginalized youths.

Problems and Issues Facing Children with Disabilities

Over 6 million American students and another 300,000 Australian students between the ages of 3 and 18 years receive special education services (Australian Bureau of Statistics, 2012; National Center for Education Statistics, 2016). Students with disabilities (SWD) are a heterogeneous group. A subset of these students has well-defined sensory disabilities (e.g., blindness or deafness) or physical disabilities (e.g., limited mobility) where the adaptations needed to provide them equal access to the curriculum and instruction are relatively straightforward. Another subset of students has global cognitive impairments (e.g., moderate to severe intellectual disability, severe autism) that may limit their participation in the general education curriculum and require changes in pedagogical arrangement and supports. A large proportion of SWD have (a) mild but global cognitive impairments, (b) problems in specific cognitive or academic domains, and/or (c) difficulties with regulation of emotions and behavior (National Center for Education Statistics, 2016). For these three groups of students, mastery of learning content and measurable achievement growth are likely to be affected markedly by the quality of the learning opportunities provided to them in the classroom.

The majority of these students often are classified as students with "high-incidence disabilities." Originally, this term referred to students with mild intellectual disabilities, specific learning disabilities, and emotional disturbance (Sabornie, Evans, & Cullinan, 2006). Subsequently, it has expanded to include students who are served under the "other health impairments" classification (which is the category where many students with attentional disorders are served), speech–language impairments, and high-functioning autism (Gage, Lierheimer, & Goran, 2012; Zablocki & Krezmien, 2013). Although students within the high-incidence disability categories may differ in important ways, a number of researchers have noted that, on the whole, there is a considerable overlap in characteristics they display. Students with high-incidence disabilities are likely to have deficits in academic skills and difficulties in the areas of attention, memory, self-regulation, motivation/engagement, and behavior that interfere with classroom learning (Blackorby et al., 2005; Vaughn, Wanzek, Murray, & Roberts, 2012). Teachers note that many of these areas are also ones where low achievers without disabilities experience difficulties (Farrington et al., 2012).

Given these common areas of difficulty, what can be done to help improve motivation and engagement and close the achievement gap for students with disabilities? A thorough discussion of how to support engagement for these different groups of students with learning disabilities is beyond the coverage of this book. We encourage readers to consult the work by Reschly and Christenson (2006) and others for a more concentrated and expert discussion of the issue of motivation and engagement

among different groups of students with learning disabilities. Relating to the promotion of learning engagement for students with disabilities, Schulte, Elliott, and Kurz (2015) provide a list of key considerations for improving the achievement of SWD. With the exception of the general principles to guide effective intervention—intervene early and use assessment to guide instruction—the remainder of the actions are proximal to the learning process and describe characteristics of the interaction among the learner, the content, and the teacher. These actions are designed to improve or accelerate academic growth and can be consulted when designing effective practices to promote learning engagement among students with learning disabilities.

In Chap. 4, we provide a research-based discussion of the importance of social skills development as a precursor or cognitive enabler for promoting social and academic engagement among disabled and non-disabled students in various American schools. This chapter highlights the significant role social skills learning has in relation to young people's socio-emotional development as well as for promoting their academic engagement in school where social skills and knowledge are critical for learning engagement, group work, and social interaction.

Definition

A foundational question posed in this book is "What is engagement?" To answer this question, we need to understand what engagement usually involves and how it can be observed. Chi and Wylie (2014, p. 220) define engagement as "overt behavior that students can undertake and teachers can see." This narrow definition limits engagement to observable behavioral responses and risks, discounting cognitive and emotional responses that often are associated with engagement. Engagement involves decision-making, thinking, emotion, and commitment of time and sustained effort. It occurs when individuals undertake activities which they value. While it is possible to engage in an activity by oneself, often others are involved through interaction and collaboration.

Defining engagement therefore requires conceptualization that encapsulates its multiple dimensions, spanning cognitive, behavioral, and socio-emotional aspects and its task-specific or activity-specific characteristics. Most research on engagement has built on a multidimensional understanding of the concept that Fredricks, Blumenfeld, and Paris (2004) proposed. They saw engagement as having cognitive, behavioral, and emotional. Cognitive engagement involves students' use of strategies and depth of processing; behavioral engagement encompasses their visible attention, persistence, and effort expenditure; and emotional engagement accounts for their applied affect—such as interest and boredom. While this conceptualization highlights important dimensions of engagement, in our view, it does not give due attention to the engaging process and interrelationships between dimensions during engagement. Hence, the complexity and richness of the concept of engagement are not fully characterized without their inclusion. In addition, Chi and Wylie's

definition is rather individualistic in its focus and does not consider interactive influences derived from one's contact with other learners in relation to specific characteristics of learning tasks and sociocultural contexts that are embedded in attention to, and participation in, the tasks (Jarvela, Jarvenoja, Malmberg, Isohatala, & Darvasi, 2016).

While we agree that engagement is multidimensional, we offer a definition that allows dimensional plasticity and highlights the dynamic, interactive, and situated nature of engagement. Thus, within the context of education, we define engagement as students' *dynamic participation and co-participation in recognition of opportunity and purpose in completing a specific learning task*, where a learning task can refer to a large array of learning and instructional activities with which students are provided or choose to complete in both in- and out-of-school contexts. This definition allows us to consider engagement as an interactive and purposive process and permits us to examine how it may change over time and vary with situations and contexts. Theoretical supports for this conceptualization can be drawn from the work by Rogoff (1995), Lave and Wenger (1991), and Engeström (2000). These sociocultural researchers have highlighted the importance of learners' changing and transformation of participation within specific activity contexts. Recent notable work by engagement researchers such as Chi and Wylie (2014), Reeve (2013), and Skinner and Pitzer (2012) has highlighted participation as the conceptual anchor in defining engagement.

When children and adolescents participate eagerly, for example, in a specific classroom activity, they deploy appropriate strategies, regulate their processing, monitor their actions, plan ahead, and check what they do against the plan. They feel happy, spend time and effort on task, and show high levels of focus and concentration. However, these "flow" conditions may fluctuate. At times, they may not know what strategies to use, fail to plan and monitor their actions, feel worried, want to get it done with less effort and time, and/or become distracted. It is important that the conceptualization of engagement captures the changing nature of engagement conditions and complex influences that may come into play and, as a result, impact its different dimensional components over time. Increasingly, students are required to complete learning tasks in collaboration with others. When students participate actively in a collaborative activity, they talk to each other, discuss their ideas, share their thinking, provide support, and share responsibilities. At times, they may be reluctant to collaborate and wait for others to take the lead. At other times, they may actively work with their peers as a result of the presence of motivating collaborators or enabling conditions. It is critical that the conceptualization of engagement covers collaborative learning processes and dynamic interactions that occur during the collaboration.

Rather than using dichotomous categories such as engaged or disengaged, our definition promotes a description of engagement as embodying qualitatively different forms of participation which can, and will, vary. The dynamic power in this conceptualization may be difficult to measure using typical instrumentation such as self-report questionnaires. However, it is a rich view that capitalizes on influences from a host of interacting factors, which may include students' personal capabilities,

task characteristics, support and interaction, and additional sociocultural conditions related to immediate and extended social environments. From the perspective of the student groups that we have focused in this book, including low SES students and marginalized adolescents, this simple definition draws attention to the variable and shifting engagement that they display. Teachers and caregivers who work with these students continuously witness their engagement in one task, only to observe their complete disinterest in it at another time, or in another task that may appear strikingly similar. Such fluctuation in participation can occur despite an activity starting off well, or even after a relatively short period of time. Situated influences such as the presence of a specific person or specific forms of interaction may also change their appetite for engagement. In Chap. 2, we will provide a more detailed discussion related to the definition and conceptualization of engagement. For the purpose of introducing this concept, it suffices to point out that our definition focuses on dynamic factors and interrelationships at work during engagement. In short, we do not conceptualize engagement merely as a personal property, that is, as something owned, but as a set of actions undertaken by a person-in-context where complex transaction and interaction occur between individuals and the use of tools, resources, and other forms of psychological and physical support. This conceptualization embraces past research that has taken a cognitive perspective and developed engagement models building on various cognitive enablers. In the same vein, we also embrace a theoretical frame that considers engagement as having an important social dimension. Thus, we are of the view that engagement is both individual and social. Its operation and development are associated with cognitive enablers and supports derived from immediate and wider contexts, as well as with constant interaction with other individuals.

Opportunity to Learn

It is apparent that students who have experienced various forms of constraints and limitations, as discussed in the previous sections, likely will experience some problems and difficulties when they try to engage in learning in and out of school. The critical issue is ascertaining the extent to which existing research enables a deep understanding of various issues associated with engagement problems and issues and the extent to which effective solutions to engagement problems can be developed based on dominant models of engagement. Current models of engagement have highlighted cognitive enablers associated with learning engagement, such as children's self-efficacy beliefs and autonomy, and these have become the basis for concerted efforts to promote learning engagement (see Chap. 2 for a detailed discussion). However, such an approach may have limited success when it is applied to students who undertake their learning in difficult contexts fraught with challenging conditions. Cognitive enablers, including a sense of self-efficacy, that are otherwise generally accessible, developed, and powerful may be haphazard, underdeveloped,

or even nonexistent among these disadvantaged students. Rather, the opposite, i.e., disengagement, is a likely outcome for most of these disadvantaged individuals.

To change, and to enable change, we propose a focus on the notion of *opportunity to learn* and to examine the extent to which genuine opportunities can be created, facilitated, and promoted for different groups of disadvantaged children and young people (Elliott & Bartlett, 2016; Elliott, Kettler, Beddow, & Kurz, 2018). By focusing on the opportunity to learn, we intend to move attention from the internality alone of individuals and groups who engage to include the externality of environments that facilitate opportunities for them to do so (Kurz et al., 2014). It would be unfair to classify disadvantaged children as disengaged when their immediate learning environment and other related contexts do not provide them with what they perceive to be genuine opportunities to learn and that consequently fail to meet their needs (McGregor & Mills, 2012). Let's consider our earlier discussion about current practices, such as dumbing down the curriculum or focusing on basic skills training as the focal attempt to help students who are falling behind. Our view is that it is illogical to expect underachieving students to demonstrate sustainably high levels of engagement in completing worksheets or unchallenging tasks alone. What enjoyment is there to be had in continuous work that involves the repetitive practicing of basic skills? It is not difficult to imagine their looming disengagement. In relation to the best intentions of educators who adopt a basic skills focus, ironically, such learning opportunities seemingly designed to meet low-achieving students' needs are in fact inimical to sustaining learning engagement. This begs the question of how genuine opportunities to learn can be created to engage disadvantaged children and young people in meaningful and sustained learning. In Chap. 3, we will provide a detailed discussion of the concept of and associated research on opportunity to learn. Subsequent chapters in the book will build on this enabling concept and elaborate how opportunities to learn can be created for different types of disadvantaged children and young people in different learning areas. In the section below, we conclude this chapter by elaborating key considerations in researching and promoting engagement for children who learn in the presence of various challenging conditions.

Key Considerations for Researching Engagement and Disengagement

Learning itself is fundamentally risky. It involves applying one's knowledge in somewhat unknown territory, which often needs to be assessed regularly in the form of examinations and tests (Hardy, 2015). For students from disadvantaged backgrounds, the risk level is even higher as their preparation and acquired social capital often do not allow them to engage easily in this risky endeavor with confidence of success. Heightening the precarious nature of learning, school is an environment that is rather unfamiliar to them. The rules and norms governing school-based

expectations and behaviors are typically outside their experience at home. In addition, what happens in school often does not have much currency in their daily out-of-school lives. Learning, and the way it is conducted and assessed in school, therefore feels foreign to these students. In this context, learning engagement is rather fragile among disadvantaged children and young people. Extra support and care is required to sustain their engagement (Smyth & McInerney, 2012).

The extent to which students engage at school is not just a function of their cognitive capabilities but also derives from how they see themselves and how much overlap there is between their sense of self and the sense they make of school. In this complex exchange, a teacher plays an important role in linking students to their school environment and in providing many of the conditions that induce feelings of student comfort. This is a caring and supportive process, appealing to the fundamental human nature of learning, and to a great extent doing the heavy lifting for what some families fail to do for these disadvantaged students. Success in school for many of these students means the building of double identities, a development in one part of which allows them to link with school members and the other to link with their families (cf. Blackberry & Ng, 2016; Ogbu & Simons, 1998). This duality is important because co-support for disadvantaged children as students and as family members may promote better engagement in both environments while disconnect will likely lessen that potential. For students from economically advantaged families, there is a high level of consistency between identities valued in families and those in school. For students who are coming from disadvantaged backgrounds, incongruences in valued identities can be expected. In many cases, children in the latter situation will struggle if they feel a need to hide their other-place identities when at home or at school.

An individual's lack of engagement is a signal about malfunctioning purpose and/or process. There is a need to understand both internal and external dynamics that sustain engagement and disengagement. The bulk of current research is on the internal dynamics that omits due attention to how students' (dis)engagement is intricately affected by an array of contextual and situated influences. Shernoff et al. (2016) recent research highlighted the importance of providing challenge and support to help students sustain their learning engagement. Accordingly, we need to know more about the dynamics involved as teachers use their role to facilitate such provision.

If we are genuine in our intention to engage students in learning, to provide opportunities for them to explore learning, and to benefit from it by opening new opportunities, we need to ask the tough question, "How good are we at achieving sustained engagement for students at risk of disengagement?" Related to this central question are important considerations about practices, relationships, and opportunities in the school and other contexts of learning. We need to know, for example, under what conditions our classroom practices promote or discourage engagement; whether the student–teacher relationship we craft with at-risk students is empowering, trusting, and caring; and to what extent genuine opportunities for learning are provided or removed.

To facilitate the discussion of how engagement can be supported, we summarize these considerations.

Engagement Fluctuates

Engagement in learning cannot be fully understood if measured solely at a specific point without considering its fluidity, its dynamic nature, and the effects of situational influences. Engagement fluctuates. Contradicting engagement indicators may occur simultaneously. For example, a child may feel excited about a learning topic but fail to exert effort or concentrate during the learning process. For disadvantaged students, fluctuations may be more pronounced, depending on situational influences such as personal interest in a topic, its nature, and levels of support provided. It is important to understand the conditions through which these students embrace engagement opportunities and what triggers their disengagement.

Engagement has a Focal Object

It is difficult to discuss engagement without considering the engagement object, such as the tasks and assignments students are given in class or in other learning settings. It would be unfair to say one is disengaged when the task itself is considered repetitive, irrelevant, and unimportant. This consideration is especially important for students who have histories of personal and sociocultural disadvantage and underlines the critical importance of the infusion of teachers' strategic knowledge about person-context interaction in designing and introducing learning opportunities to their students.

Engagement is Situational and Malleable

Engagement occurs in specific situations where its configuration involves an individual's perceptions, his or her personal histories, knowledge and understanding accessible in the setting, and, most importantly, the complex interaction and exchange between participants and tasks in the learning opportunity. Engagement behaviors or patterns can vary with situations. Central to situated engagement is the notion of malleability. It highlights the variation where students' engagement can be modified by changing the configuration of task design, levels of support, and rules and norms governing interactions and relationships between players within a specific learning situation.

Engagement is Purposeful

Engagement involves goals. It is important to understand the nature of, and intention behind, students' goals at the commencement of the learning engagement process. The quality and levels of engagement may differ depending on students' intended goals. It is also important to consider the goals of peers, teachers, parents, and other significant social agents and the extent to which they are aligned. Contradictions may arise between the learner and other social agents in relation to what goals should be achieved and how to best achieve them.

Engagement is Negotiable and often involved power struggles

Learning engagement in schools and other study settings involves a set of important decisions that an educator needs to make. These involve fundamental questions about what to learn, how to learn, why one needs to learn a specific curriculum, how best to engage with strategies of learning in order to get with learning, and whose interest is being served during the learning and assessment process. Often, learning engagement becomes problematic when students have poorly developed decision-making skills or find it difficult to work with these decisions. If so, they are far more likely to respond by displaying negative affect including behaviors portraying boredom, disinterest, fatigue, slow response, or distraction. In these situations, students can be said to be in a quasi-negotiated mode of engagement, being aware of the intended object of engagement, but engaging in avoidant and counterproductive ways. Teachers and those in charge reflecting on these behavioral displays might take up an educator's challenge by developing alternative routes to help students reconsider their decisions. Such action seems more constructive than an option to dismiss these signals and use their power to discipline "disengaged" students.

Conclusion

The ideas expressed in this book contribute significantly to the literature on learning engagement through their focus on children and young people who learn in the presence of challenging conditions. Current models and findings are not sufficient to allow a better understanding of their engagement and disengagement. It is simplistic to explain the lack of engagement among these groups using current models that indicate that they lack learning interest and have low self-efficacy. Stating the obvious has not resulted in a better understanding. Given that students who are disadvantaged are often associated with pressing educational problems, such as retention, dropout, and achievement gaps, a close look into engagement presents a useful perspective in understanding the nature, challenge, and possible solutions associated

with these problems. We argue that disengagement is a precursor to many educational difficulties for these students. This book contributes to the nascent literature on engagement about these student groups, and we offer research evidence showing how and in what ways their enhanced engagement can be supported and sustained.

It is critically important that children and young people who learn in challenging conditions have access to opportunities to learn and are able to seize opportunities for productive development. This belief has led us to argue for promoting equitable engagement when dealing with various types of achievement gaps. As we argue there is a need to shift the research focus from disengaged students as individuals with unmotivated learning attitudes and responses to developing educational practices that are engaging from the perspective of these disadvantaged students. After all, it is erroneous to claim that an education system is effective when schools and teachers are unable to support students who struggle with learning engagement.

Chapter 2
Indicators and Facilitators of Engagement: Going Beyond Linear Thinking

Research interest concerning engagement has surged over the past two decades. According to Azevedo (2015), a search of articles about engagement over the past 20 years, using the PsycINFO database, returns more than 32,000 articles. With such a large quantity of published research, it is virtually impossible to locate a consistent and unified definition of engagement. Different researchers conceptualize and operationalize the engagement construct in different ways following relevant theoretical perspectives (Fredricks, Blumenfeld, & Paris, 2004; Christenson, Reschly, & Wylie, 2012). For example, Finn's participation–identification framework (Finn, 1989) defined engagement as being students' basic learning behaviors and affective responses including belonging and valuing. Martin's (2007) account expressed engagement in terms of an individual's adaptive and maladaptive cognitions and behaviors. Investigators whose thinking has been informed by both cognitive and sociocultural theories understand engagement as involvement and participation in learning (e.g., Reeve, 2013; Ryu & Lombardi, 2015; Skinner & Pitzer, 2012).

An appealing definition of engagement has been put forth by Christenson et al. (2012) as part of the Epilogue for the Handbook of Research on Student Engagement. After editing 39 chapters on the topic, they concluded that "student engagement refers to the student's active participation in academic and co-curricular or school-related activities, and commitment to educational goals and learning. Engaged students find learning meaningful, and are invested in their learning and future. It is a multidimensional construct that consists of behavioral (including academic), cognitive, and affective subtypes. Student engagement drives learning; requires energy and effort; is affected by multiple contextual influences; and can be achieved for all learners" (p. 816–817).

In line with this recent thinking, we define *engagement as changing participation and co-participation in learning*, and *disengagement as students' withdrawal of their participation* (see also the section on definition in Chap. 1). Students' active participation is observable and can be characterized in multiple ways in terms of cognitive, emotional, behavioral, and social responses and their changes and

C. Ng et al., *Empowering Engagement*,
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development. This definition aligns with Skinner's description of engagement as "energised, directed, and sustained action" and "observable qualities of students' actual and interactions with academic tasks" (Skinner & Pitzer, 2012, p. 24). Underpinning this definition is recognition that motivation and engagement are related but separable processes. Motivation denotes the internal processes energizing, directing and sustaining engagement. Engagement is the observable energized, directed and sustained actions. Engagement is therefore "observable manifestation of motivation" (Kindermann, 2007, p. 1188).

Engagement as active participation can be conceptualized as both a process and an outcome. Students' participation in learning is of course a desirable outcome. When students' participation is linked with longer-term dependent variables, such as subject choice and school retention, it plays an important mediating role and allows us to understand students' participation as part of a process. A key concept in our definition is the notion of change. This important feature is commensurate with the belief that engagement is achievable for all learners (Christenson et al., 2012) and that engagement often fluctuates and changes over time. This conceptualization points to the need to specifically monitor students who have experienced disengagement and/or exclusion and explore how to re-engage them and to help them shift their engagement focus from passive participation, or in many cases participation–withdrawal, to active and sustained participation.

A crucial consideration in this area of research is to understand factors which promote or hinder engagement. Using our current definition, this consideration is translated into two critical questions: How do we know students are actively participating during the learning process or engaging in an opportunity to learn? What can promote or hinder active participation? To answer the first question, there is a need to consider extensive research that has examined multiple indicators of engagement. In answering the second question, an examination of research on facilitators of engagement is critical.

Separating indicators and facilitators of engagement is significant for two important reasons. First, it will facilitate a focus on observable representations of engagement or their proxies and on developing appropriate measurable variables to capture them (cf. Chi & Wylie, 2014). In this conceptualization, engagement actions and behaviors are distinguished from significant internal processes as well as motivating social and interactive influences. It will also facilitate research on change and development of engagement, allowing the focus on various observable indicators to assess engagement, monitor changes, and isolate important social influences. Second, the separation of indicators and facilitators suggests a causal relationship between these two aspects of engagement. In this sense, facilitators are causal agents that promote and sustain engagement that can be observable based on various indicators (Skinner & Pitzer, 2012). This thinking is important in that it facilitates intervention designs to target a specific engagement facilitator, or a set of them, and allows these to be linked with relevant engagement indicators. From this perspective, facilitators of engagement will point us to important sources of engagement or what Chi and Wylie (2014, p. 219) referred to as "precursor stages of engagement" and allow the use of relevant theoretical models to link facilitators and

indicators of engagement. For example, the separation is important for discussing how social skills as an engagement facilitator enable and sustain social engagement. Without such a distinction, social skills and prosocial behaviors will be mixed. Additionally, promoting engagement for students coming from disadvantaged backgrounds will require this distinction as many of these students often are characterized as unmotivated, sub-skilled, and disengaged. These negative perceptions, to a great extent, confuse indicators and facilitators of engagement and will not be useful in formulating plans to support these students. A demarcation of indicators and facilitators will enable research on sources of disengagement, conditions and influences that aggravate disengagement, and for designing new ways to empower engagement and to focus on malleable and manageable facilitators or facilitating conditions. The discussion about facilitators and indicators also offers insights into fundamental questions on "what" and "why" about engagement.

The separation of indicators and facilitators is consistent with our understanding that motivation and engagement are two separate but related processes, with the former energizing, directing, and sustaining the latter. In addition, the separation is aligned with the self-systems framework (Connell, 1990; Connell & Wellborn, 1991; Skinner, Kindermann, & Furrer, 2009). In this framework, context, self, action, and outcomes are conceptualized as linearly related to each other in a context–self–action–outcome progression. Context refers to opportunities and supports in a specific setting, and self refers to internal processes that occur within the individual. Actions originate from the context and self and are observable behaviors. Outcomes are the results of these actions. Mirroring this theoretical conceptualization, facilitators are located on context and self-dimensions, while indicators are observable actions of engagement.

Three Indicators of Engagement

Student engagement is a multidimensional concept (Christenson et al., 2012; Fredricks et al., 2004; Fredricks, 2011; Skinner, Kindermann, Connell, & Wellborn, 2009). Different models of engagement specify a different number or set of dimensions (Fredricks et al., 2004; Reeve & Tseng, 2011; Pekrun & Linnenbrink-Garcia, 2012). According to the review by Fredericks and colleagues (2004), three important dimensions are important indicators of engagement, a concept adopted by many studies. These three dimensions are cognitive, emotional, and behavioral engagement. In conceptualizing engagement as active participation and co-participation, the multidimensional

understanding of engagement draws us to consider how active participation can be observed in different dimensions and in what ways collaboration with peers and other forms of interactive influences can facilitate their development. A concise review will allow us to build on this research foundation and explore the issues for promoting engagement among students coming from differently vulnerable and disadvantaged backgrounds.

Different studies have focused on specific dimensions, but few have taken an integrated perspective to examine these three dimensions simultaneously. While the three-dimensional conceptualization has been widely accepted, researchers differ in the ways they conceptualize and measure them (Sinatra, Heddy, & Lombardi, 2015). Another important issue is that discussion in the literature often confuses indicators and facilitators of engagement in relation to the three dimensions. It is important that these two parts are conceptually and methodologically separated in order to attain theoretical clarity and for designing intervention that focuses on appropriate levels of operation. Below, we briefly review research on each of these dimensions.

Behavioral Engagement

Behavioral engagement is one of the most widely researched engagement indicators. Behavioral engagement is often understood in two particular ways—positive student behaviors, such as following rules, and learning behaviors, such as paying attention, being self-reliant, and remaining focused while completing an academic task (e.g., Finn & Zimmer, 2012; Guo, Sun, Breit-Smith, Morrison, & Connor, 2015; Ponitz, Rimm-Kaufman, Grimm, & Curby, 2009; Skinner, Kindermann, & Furrer, 2009). Common measures for assessing student conduct (such as following classroom rules) and learning behaviors in the classroom include time on task, paying attention and displaying effort and concentration, and timely completion of work (Fredricks, 2011). Many researchers have repeatedly confirmed the importance of behavioral engagement for achievement outcomes (e.g., Finn & Zimmer, 2012). In the research on school retention, a lack of behavioral engagement and the presence of student conduct problems are predictive of schooling issues such as absenteeism and premature dropout (e.g., Finn & Zimmer, 2012). Behavioral engagement can be represented differently at different developmental stages. For example, following rules and directions is an important indicator of behavioral engagement among young children at early childhood and lower primary stage and has been used to predict readiness for schooling and future schooling success (e.g., McWilliam & Casey, 2008). During middle schooling or early adolescence, other forms of behavioral engagement such as effort expenditure, attention in the class, and initiating action will be more critical than simply following rules. In addition, behavioral engagement can also differ in relation to the nature of task and characteristics of a learning setting. For example, attendance is an important form of behavioral engagement for after-school activities (e.g., Rose-Krasnor, 2009). However, when the concern is about the completion of homework, effort expenditure and timely completion of tasks are more relevant indictors of behavioral engagement.

Where behavioral engagement is seen simply as students' compliance with classroom rules and behavioral expectations, there may be disjuncture with what energizing, direction, and sustained action they are able to undertake in relation to learning tasks. For example, strict student compliance may not be an appropriate indicator for learning tasks that demand higher-order thinking and processes. Similarly, it is not a good indicator of students' level of enjoyment and interest.

Students can hold low levels of interest while displaying behavioral engagement. There are quietly disengaged students in our classrooms, some of whom elect to "actively make themselves invisible in classrooms" (Dagley, 2004, p. 624).

Emotional Engagement

Emotional engagement involves affective responses people provide in relation to learning. Positive affective responses can include happiness, satisfaction, interest, valuing of learning, a sense of belonging, and formation of positive relationships (Finn, 1989; Voelkl, 1997). Emotional engagement can be examined at different levels in relation to a specific task, learning content, working with peers, responses to teachers, and perceptions about classroom and school contexts. For example, at the subject level, emotional engagement has been measured using items assessing positive feelings, mainly in relation to interest, enjoyment, and valuing of learning (Fredricks & McColskey, 2012). At the school level, or in relation to the membership of a social group, students' senses of belonging and relatedness have been used as indicators of their emotional engagement (e.g., Finn & Zimmer, 2012). Research has shown that these positive feelings are associated with important engagement indicators such as persistence and effort expenditure. Also, emotional engagement is associated with important outcomes including achievement levels (e.g., Pekrun & Linnenbrink-Garcia, 2012), liking of a school subject (e.g., Ng, 2014), and positive attitudes toward schooling (e.g., Pietarinen, Soini, & Pyhältö, 2014). It is obvious that students who are excited about a school subject will develop a positive attitude toward it and continue to engage with the subject. Emotional engagement can be a response to a specific task or a learning object. It also can be developed as a result of the relationship with one's significant others, including parents, teachers, and friends. Warm and supportive relationships are essential for supporting positive emotional engagement (Wentzel, Russell, & Baker, 2016).

Relatively limited attention has been given to negative emotions and their effects on engagement and outcomes. Negative emotions such as fear, anxiety, and boredom are capable of "deactivating" learning (Pekrun, 2006). Students who hold negative feelings about a school subject are likely to spend less time on it, and subsequently, poor achievement levels and negative attitude toward the subject are likely to develop (e.g., Ng, 2014). If negative emotions are developed in relation to one's feelings about school, a weak sense of belonging is expected, and if negative emotional engagement persists, absenteeism and dropout will likely result (Wang, Chow, Hofkens, & Salmela-Aro, 2015).

Cognitive Engagement

Cognitive engagement is the mental investment people make in learning (Fredricks & McColskey, 2012). In an educational context, it is concerned with students' depth of processing, use of relevant learning strategies, and self-regulation. Cognitive

engagement is important for successful and effective management of the learning process, and therefore, it is critical for promoting high performance and learning outcomes. Cognitive engagement has been measured using different self-report instruments that assess students' use of learning strategies, self-regulation strategies, comprehension, and persistence (Greene, 2015). According to Chi and Wylie (2014), a high level of cognitive engagement can be detected when students enter into a constructive dialogue to generate new knowledge beyond what is given or contributed by the partner. This interactive mode of engagement builds on active and constructive contribution from all the learners. Research (e.g., Pietarinen et al., 2014) has shown that cognitive engagement is associated with high levels of achievement. In addition, cognitive engagement plays an important role in mediating the effects of different types of motivation, including levels of self-efficacy and the use of achievement goals on achievement (e.g., Greene et al., 2004). Children who show a high level of cognitive engagement in school work are more likely to sustain their engagement in learning and school activities in the long run (e.g., Ripke, Huston, & Casey, 2006).

Teacher expectation, provision of challenging tasks, and conversational interaction regarding the learning topics promote cognitive engagement (Taylor, Pearson, Peterson, & Rodriguez, 2003). Additionally, students who hold a high level of self-efficacy are more likely to engage cognitively. However, anxiety dampens cognitive engagement. For example, Ashcraft (2002) found that a high level of mathematics anxiety was associated with a tendency to withdraw when the learning becomes challenging. Students who feel anxious about their performance will be less likely to adopt deep learning strategies and more likely to give up on learning.

Cognitive engagement is hard to observe. When students are cognitively engaged, they are concentrated and persistent in their learning. These behavioral expressions of cognitive engagement overlap with behavioral engagement of compliance to classroom rules and norms that expect students to put effort into their work. Another notable issue in cognitive engagement is students' declining motivation and interest in academic work following the transition from primary to middle school (e.g., Vedder-Weiss & Fortus, 2011). This decline is associated with corresponding declining levels of cognitive engagement, as indicated by students' preference for easy tasks, avoidance of challenge, effort withdrawal, and work avoidance.

Social Engagement as an Additional Indicator of Engagement

In addition to the three different dimensions of student engagement, there are other engagement dimensions that should be considered. An important and obvious omission in Fredricks' review (2004) is social engagement. Social engagement is observable when students collaborate with others, share responsibilities, and work together during the learning process (Patrick, Ryan, & Kaplan, 2007). It can also be

recognized when students follow classroom rules and norms (Finn & Zimmer, 2012). As expected, different ways of conceptualizing and defining social engagement can be found in the literature. For example, Rimm-Kaufman, Baroody, Larsen, Curby, and Abry (2015) measured social engagement in terms of students sharing and discussing ideas in their mathematics class. Linnenbrink-Garcia, Rogat, and Koskey (2011) described a social–behavioral dimension of engagement and measured it based on students' collaboration with classmates surrounding classroom tasks. Finn and Zimmer (2012) defined social engagement in terms of students following rules and displaying prosocial behaviors in completing academic tasks. The varied ways of measuring social engagement suggest it can be detected at different levels for a variety of purposes, including meeting social norms and completing academic work in a collaborative setting. In terms of outcomes, Patrick et al. (2007) showed that social engagement in the form of interactions observed during the learning of specific tasks was related to higher grades among fifth graders in learning mathematics. In contrast, students who were less socially engaged were often off-task and engaged in disruptive behaviors, and expectedly, these students did not do as well academically.

The ability to invite, reinforce, and sustain social engagement is critical for promoting collaboration and enhancing communication. Social relationships, social support, and social skills are important enabling factors of social engagement. These three aspects of social engagement are intricately interrelated. Social skills play an important role in initiating social contact, seeking support, and developing social relationships. Social skills are important sociocognitive resources enabling social engagement, as well as promoting engagement in academic work that requires collaboration (DiPerna, Volpe, & Elliott, 2005; see Chap. 4 for details). From a relational perspective, a warm and supportive context provides an inviting environment for learning and practicing social skills. In terms of effects on learning outcomes, the research on social skills has provided accumulative evidence (Domitrovich, Cortes, & Greenberg, 2007; McClelland, Acock, & Morrison, 2006) indicating that they are associated with school success in elementary and preschool levels. Teachers often consider social skills, such as cooperation, as vital for effective learning (e.g., Lane, Pierson, & Givner, 2003; Meier, DiPerna, & Oster, 2006). Similarly, the twenty-first century skills reform agenda has highlighted the importance of cooperation, collaborative, and communication skills. Such skills are also important for effective engagement in group work and collaborative problem-solving. In addition, many intervention and instructional models have taken social skills and interaction as critical components in promoting sustained participation and improving results. For example, reciprocal teaching for reading instruction relies on students' exchanging and sharing to enhance reading comprehension (Palincsar & Brown, 1984). In the context of engagement research, Reeve and Tseng (2011) have shown that students who shared their preferences with teachers changed the way teachers behaved and how instruction was delivered. In ICAP engagement model (Chi & Wylie, 2014), dialogue and interaction are vital for deep learning and are considered the most advanced forms of engagement.

To many, social skills seem to develop naturally, without the need for explicit training. For students with disabilities, social skills training is an essential part of their education. Similarly, for young people who have been marginalized or excluded from mainstream schooling, social skills training forms an important part for their re-engagement, promoting their social well-being and enabling their participation as productive members of society. In Chap. 4, we present a consolidated review of research on social skills and discuss how social skills programs can enhance engagement for all students and, in particular, students coming from disadvantaged backgrounds. In Chaps. 7 and 8, we discuss alternative education programs where social skills play an important role in re-engaging marginalized youths in meaningful learning.

Facilitators of Engagement

Facilitators of engagement are multiple and can originate from both cognitive and social realms. Plentiful research has focused on cognitive facilitators of engagement using motivational variables based on sociocognitive theories. Major motivational variables are concerned about students' levels of confidence, their reasons for learning, needs for autonomy, and the role of personal interest in the process of engagement. Another type of facilitation is social in nature and is derived from people interacting with students and from social settings where students partake as members. These social agents include teachers, peers, parents, and other family members. Their influences on student engagement are channeled through their supports in forms of shared goals, high expectations, and social practices that provide warmth, care, and understanding. They also influence learning engagement through practices they create to govern ways that a learning task is completed and how children and young people are expected to work together. In what follows, we offer a brief review of research on these cognitive and social facilitators.

Cognitive Facilitators

Cognitive facilitators are cognitive attributes or capabilities that enable children and young people to intellectually engage with a task. A lack of appropriate development will stifle engagement in learning and academic work. Research on motivation and engagement has provided a rich foundation for understanding these cognitive facilitators and the work they do to promote and sustain engagement. Among these, the most-researched cognitive facilitators are enablers of self-efficacy, self-determination, achievement goal-setting, and personal interest. Children and young people who are confident, autonomous, goal-oriented, and interest-focused are more likely to engage in learning and sustain their engagement facing challenges and difficulties. Conversely, those who are less confident, who feel controlled, who do not have

clear goals, and who lack a genuine interest in learning will be more likely to withdraw their participation from learning. Research on what triggers these important cognitive facilitators is supported by corresponding theories, including self-efficacy theory, self-determination theory, achievement goal theory, and interest theory.

Self-efficacy is a child's perceived ability or capacity to successfully complete a task within a specific domain or setting. Self-efficacy beliefs affect task choice, persistence, effort, use of strategies, and achievement (Bandura, 1997; Pajares, 1996a, b; Schunk & Pajares, 2005) and are important for promoting student engagement. Children form a sense of self-efficacy in different domains through direct experience, vicarious experience, social persuasion, and physiological indexes (Bandura, 1997). Children who have developed a strong sense of self-efficacy in a specific domain are confident in their abilities and are more likely to actively participate in activities, expend effort, and persist in the face of challenges, difficulties, and even failure. In contrast, children who have a weak sense of self-efficacy will be more likely to show low levels of participation, expend limited effort, and withdraw their involvement following failure or when faced with challenges. A high level of self-efficacy is associated with enjoyment, valuing of learning, use of deep and regulated strategies, better achievement levels, and effort expenditure (Greene, 2015; Pajares, 1996b; Pajares & Graham, 1999; Pajares & Kranzler, 1995; Sakiz, Pape, & Hoy, 2012). In contrast, a low level of self-efficacy is unsurprisingly related to academic procrastination (Steel, 2007), negative emotions such as anxiety (Muris, 2002), and the use of surface strategies. The positive effects of self-efficacy on academic achievement have been widely documented in research (e.g., Bandura, Barbaranelli, Caprara, & Pastorelli, 1996; Diseth, 2011; Pajares, 1996a). Recent research has linked self-efficacy to achievement goals. In this line of research, self-efficacy has shown its protective effects on student engagement where students successfully differentiate the effects of adaptive and maladaptive goals. For example, Liem, Lau, and Nie (2008) found that self-efficacy predicted students' goals for mastery and outperforming others, which in turn were linked with adaptive learning patterns such as the use of deep strategies and valuing of task. In the same study, self-efficacy predicted negatively students' goal to avoid showing a lack of performance, a goal associated with the use of surface strategies, task disengagement, and devaluing of learning mathematics.

Bandura (1978) used the term "reciprocal determinism" to describe the reciprocal interactions between cognitive, behavioral, and environmental factors in affecting psychological functioning. In the context of understanding the relationship between self-efficacy and student engagement, the notion of reciprocal determinism has prompted studies that examined reciprocal interaction using longitudinal designs. For example, Williams and Williams (2010) verified a structural equation model depicting the reciprocal relationship using cohort data from PISA.

Self-efficacy affects the development of relationships. For example, Patrick and colleagues found that self-efficacy was associated with peer relationships and individuals' judgment of their ability to relate with peers (see Patrick et al., 2007). Nevertheless, the relationship between self-efficacy and emotional engagement is rather unclear. Much work in this area has focused on test anxiety confirming that

high levels of self-efficacy are associated with low levels of anxiety (e.g., Bonaccio & Reeve, 2010; Nie, Lau, & Liau, 2011; Putwain & Daniels, 2010). However, few research studies have examined the relationship between self-efficacy and positive emotions such as enjoyment, happiness, satisfaction, and sense of belonging. We also have little knowledge about the relationship between self-efficacy and different forms social engagement.

Achievement goals are students' perceived reasons and purposes for learning and pinpoint why, and how, students engage in learning and achievement (Dweck, 1986). Different goals are associated with different patterns of engagement as indicated by a combination of cognition, affect, and behavior (cf. Ames, 1992; Dweck, 1986). Early studies on achievement goals contrasted the effects on learning, engagement, and achievement of two somewhat different types of achievement goals—mastery versus performance goals. Students' mastery goals represent a focus on learning for the sake of improvement and understanding, whereas performance goals reflect students' attention to achievement and relative ability. A wealth of studies accumulated over the past three decades has firmly established the benefits to learning derived from mastery goals and their associated adaptive engagement patterns such as higher levels of persistence, effort expenditure, task value, and frequent use of cognitive and regulatory strategies. In contrast, performance goals are less adaptive and tend to link with a less engaged pattern of learning characterized by low levels of persistence, effort withdrawal, and use of surface strategies (e.g., Ames, 1992; Ames & Archer, 1988; Dweck, 1986; Meece, Blumenfeld, & Hoyle, 1988; Nolen, 1988).

The contrasting effects of these two types of goals on learning and achievement have provided an empirical basis for forming a mastery goal perspective that promotes the use of mastery goals per se to optimize students' motivation to learn (Midgley, Kaplan, & Middleton, 2001). However, the effects of performance goals on learning and achievement are open to debate. Subsequent research (e.g., Barron & Harackiewicz, 2001) that fine-tuned performance goals into approaching and avoidance orientations showed that detrimental effects of performance goals were confined to those with an avoidance orientation such as avoiding showing a lack of ability, while positive effects were found among performance goals with an approaching orientation such as seeking a good grade. Building on this empirical foundation, an important point of debate (Harackiewicz, Barron, Tauer, & Elliot, 2002) has emerged regarding additional benefits of pursuing approaching forms of performance goals alongside mastery goals. This sparked research on multiple goals, i.e., simultaneous adoption of performance-approach goals and mastery goals, and subsequent studies (e.g., Barron & Harackiewicz, 2001; Pintrich, Conley, & Kempler, 2003) have reported positive effects on learning derived from holding multiple goals. Students who hold multiple goals are more likely to endorse an engaged learning pattern characterized by the use of deep learning strategies and various forms of regulatory strategies, high levels of control and self-efficacy, and positive attitudes including learning interest and valuing of learning (e.g., Kolić-Vehovec, Rončević, & Bajšanski, 2008; Luo, Paris, Hogan, & Luo, 2011). However,

multiple-goal learners do not necessarily have better results, which may be related to need to manage different goals simultaneously (Ng, 2008).

Studies on achievement goals in the past three decades have confirmed the significant role of students' perceived reasons and purposes for learning and how these goals trigger different patterns of engagement. Ames (1992) argued that classroom structures in terms of task design, evaluation, and grouping practices communicate messages regarding the teacher's goals for their students. Those who perceive that their teacher focuses on learning and understanding are more motivated and engaged in learning. In contrast, students who perceive that that their teacher is concerned more about performance and competition will be likely to show diminishing motivation and less engaged patterns of learning (Meece, Anderman, & Anderman, 2006). More recent research has established the relationship between parents' behavior and students' achievement goals. Parents' supportive behaviors, rather than monitoring of students' academic work, are more likely to lead to the development of mastery goals (Régner, Loose, & Dumas, 2009). This may be related to parents' and teachers' goal focus because research shows that parents who hold mastery goals, i.e., wanting their children to focus on learning and improvement, tend to provide support to their children's autonomy, while those focusing on performance-approach goals display more controlling parental behaviors (Mageau, Bureau, Ranger, Allen, & Soenens, 2016).

Autonomy, competence, and relatedness are basic psychological needs that self-determination theory considers critical for promoting student engagement. Autonomy refers to choice that students can make freely during the learning process. Competence refers to the feeling that one can successfully produce desired outcomes. Relatedness denotes the connection one links with significant others. Students who feel a strong sense of autonomy, competence, and relatedness are more likely to participate actively in learning (e.g., Reeve, 2009). In the absence of these senses and perceptions, active and deep engagement is unlikely to occur. In addition, low levels of autonomy have been related to anxiety, problems of school adjustment (Ryan & Connell, 1989), and different problems associated with psychological maladjustment (Ryan, Deci, & Grolnick, 1995). Increasing choices and options during the process of learning are crucial in promoting a sense of autonomy. Research (e.g., Jang, Reeve, & Deci, 2010) has shown that teachers who support students' autonomy in learning are more likely to engage their students in learning about learning. High autonomy support at the school level produces a stronger sense of belonging. Contrarily, teachers who use controlling approaches or tactics such as engagement–contingency rewards, deadlines, threat, or coercion often trigger negative responses including effort withdrawal and negative emotions such as anxiety. Similarly, parental practices that support children's need for autonomy, such as listening to them, acknowledging their feelings, and providing options, are conducive to developing autonomy and self-determination of their children. In contrast, perceived low levels of parental autonomy support are likely to have negative outcomes such as high-risk behaviors (Williams, Cox, Hedberg, & Deci, 2000). However, little is known yet about whether peers and close friends can contribute to supporting these psychological needs.

Students' reasons for learning, including external, introjected, identified, and integrated categories, are important for developing autonomous motivation. Students who have identified and integrated reasons for learning are more autonomous than those who learn for external or introjected reasons that come often with pressure and control. Reeve (2007) proposed that promoting these autonomous motivations will facilitate the development of agentic engagement. Reeve claims that agentic engagement can be seen when students contribute actively to the instruction flow by initiating a process to pursue options they prefer, enhancing their choices, preferences, and meaningful learning (Reeve & Tseng, 2011).

Interest as a motivational variable facilitating engagement involves both emotion and cognition. Renninger (2009) argued that developing interest in a subject area requires not just arousal of positive feelings such as enjoyment but also the development of knowledge and value. Thus, interest combines both cognitive and affective properties. Interest is important to learning and achievement as it promotes and sustains learning motivation. For example, interest is reciprocally related to self-efficacy, self-regulation, and valuing. In other words, students who hold strong interest in a subject area are more likely to feel efficacious and to regulate and value their learning, which subsequently, will reinforce and strengthen their interest (e.g., Frenzel, Goetz, Pekrun, & Watt, 2010; Hidi & Ainley, 2008; Nieswandt, 2007).

Expectedly, such students will be more likely to remain engaged and achieve better outcomes (e.g., Lee, Lee, & Bong, 2014; Rotgans & Schmidt, 2011), as the associated learning has become personally significant (Krapp, 2003).

Research on learning interest has distinguished between situated and individual interest (Renninger & Hidi, 2011). Situated interest is short-term, unstable, and a momentary experience of positive feelings and increased attention to a learning task or situation. In contrast, individual interest is a long-term, stable, persistent, and well-developed predisposition to re-engage in a subject matter or learning that one values. Students who find a specific task or situation interesting but do not consistently feel that way are said to have situated interest. The source of situated interest is derived from novelty, challenge, and other appealing features such as surprise and uncertainty associated with a learning task or a learning situation. Such tasks or situations attract attention (Schaeffner & Schiefele, 2007) and stir up sparks of enjoyment and excitement. While this form of interest is short-term, it can be developed into a permanent type of interest that forms part of personal attributes if situated arousals of interest are frequently encountered.

Hidi and Renninger (2006) and Krapp (2003) describe how situated interest can be developed into a permanent form of individual interest through stages involving triggered situated interest, maintained situated interest, and emerging and stabilized personal interest. Students' engagement may differ as a result of the stage of their interest development (e.g., Tsai, Kunter, Lüdtke, Trautwein, & Ryan, 2008). Those at an initial stage are less likely to expend a substantial amount of time and effort on a task based solely on a basic level of appeal such as novelty. If the learning becomes too challenging or unappealing, these students will readily quit. In contrast, students who already have developed a stable personal interest in a subject area can be expected to spend a significant amount of time and effort to learn.

More significantly, they persist in face of challenge, hold positive attitudes about their learning, and often seek opportunities to further their understanding. In other words, students who hold an individual interest in a subject area or a topic will actively seek opportunities to re-engage in the topic areas that they value and know well. High levels of self-regulation can be found during the course of engagement and learning when students have personal interest in a specific domain or topic. This also means that students will be able to manage repetitive and boring learning tasks or situations in areas of personal interest. Educational research on interest has shown that situated interest can be triggered in a range of ways, using novel tasks and hands-on and problem-based designs and addressing personal preferences (Høgheim & Reber, 2015; Renninger & Bachrach, 2015; Walkington & Bernacki, 2014). Sustaining students' triggered situated interest in a specific learning area can turn momentary arousals into enduring predispositions to learn and engage in a specific area. While attention and concentration in class can be taken as observable engagement with interest, students who display such forms of behavioral engagement may not necessarily hold genuine interest in learning (Renninger & Bachrach, 2015). Promoting students' valuing of task and a mastery focus in learning facilitates their development of enduring interest, resulting in different forms of sustained engagement including persistent pursuit through subject and career choices (Canning & Harackiewicz, 2015; Harackiewicz & Hulleman, 2010; Harackiewicz, Rozek, Hulleman, & Hyde, 2012).

Relationship Between Motivational Facilitators of Engagement

Research has shown that while these major cognitive facilitators of engagement are significant in their own right, their relative importance in promoting and enabling engagement remains elusive. Limited research has considered them simultaneously within a single study. This probably is related to the fact that these cognitive facilitators are derived from motivational theories that focus on different sets of variables or constructs. While there have been some studies (e.g., Harackiewicz & Hulleman, 2010) that examined the interrelationship between these facilitators, sustained effort is required to develop an empirical foundation that is multi-theoretic using research designs sensitive to changes and reciprocal relationships. Such research effort would provide important insights into the relative role of these motivational facilitators on engagement and allow for an examination of the effects of mediators and moderators. Group-level moderator variables including gender, ethnicity, socioeconomic status, culture, and race are an important concern for future research. First, a majority of the research work in relation to these cognitive facilitators has been conducted with middle-class student samples from Euro-American countries. Using student groups with low SES backgrounds will provide additional understanding of the operation of these motivating variables and how SES moderates effects in

learning engagement. For example, Guthrie, Coddington, and Wigfield (2009) have shown that African American students' engagement in reading is constrained by avoidance motivation. Including moderator variables such as race, culture, and gender characteristics will allow for a better understanding of existing findings and the breadth of areas to which these findings can be applied. For example, performance-approach goals are not consistently linked with achievement levels among samples of Western students. In contrast, these performance concerns are often associated with students' achievement levels among Asian students who learn within a competitive environment. In addition, extending the conceptualization and research models to include a range of important variables can improve our understanding of these motivational facilitators and examine their roles in bigger motivation–engagement model. Third, there is need to focus on intervention and examine what makes it work—and for whom. This type of research is urgently required for students from disadvantaged backgrounds, and their active engagement necessitates a strategic and coordinated support informed by research evidence.

Social Facilitators

Social facilitators refer to social conditions, interactions, and relationships that promote engagement. These conditions, interactions, and relationships are constructed and co-constructed by children and social agents, including peers, teachers, parents, family members, and members of immediate and wider communities. This network of social agents operates in embedded contexts critical for supporting engagement in learning and other activities. Bronfenbrenner's ecological model (2009) provides a theoretical framing to understand these embedded contexts. At the micro-context, children interact with peers and teachers in the classroom or other learning settings including various social media and online platforms. How children engage is also influenced by family situations, relationships with parents, and family members who provide children with access to important learning resources, modeling of how these resources can be used and instilling value orientations that either support or hinder student engagement in specific learning domains. At the general level, members from relevant communities play a role in channeling children's interest and focus, providing resources, and attaching importance to different forms of learning and engagement. Below, we provide an overview of research findings regarding the effects of these social facilitators on engagement.

Peer Influence

Peer influence becomes more salient during adolescence when young people increasingly spend more time with friends and develop independence from parents. Research (e.g., Kindermann, McCollam, & Gibson, 1996; Ryan, 2001) on peer as a socialization context provides converging evidence about the importance of peer

relationships, support, and affiliation in promoting personal well-being, school engagement, and achievement. Epstein's seminal study (1983) showed that socializing with friends who feel positively about school enhances a student's positive affect and satisfaction toward school. Similarly, Berndt and Keefe (1995) found that adolescent students who thought their friends were engaged positively in school increased their own involvement. More recently, Ryan (2001) found that one's peer group context predicted seventh graders' enjoyment of school and achievement. Kindermann (2007) reported findings showing that sixth graders' peer group engagement characteristics at the beginning of the year predicted their end of year's level of engagement measured in terms of a range of behaviors including concentration and attention in the classroom. In other words, research shows that befriending and being befriended by engaged peers promotes engagement. In addition, research also shows that peer acceptance is associated with academic achievement (Cillessen & van den Berg, 2012), while peer rejection is linked with declining achievement (Véronneau, Vitaro, Brendgen, Dishion, & Tremblay, 2010).

Peer influence on engagement is important in the context of instruction and classroom interaction (Wentzel & Watkins, 2011). For example, friends who clarify teachers' instruction and share work promote engagement with learning (Wentzel, Battle, Russell, & Looney, 2010). Low-achieving students can benefit from interacting with, and talking to, more capable peers (Cooc, Kim, & Graham, 2017).

An important consideration in the research of peer influences is the issue of selection because there is a tendency for children to select friends who are similar to themselves. Where this happens, peer influence on engagement is confounded with personal selection (Ryan, 2001). In this sense, children's engagement or disengagement should not be conceptualized solely as a direct influence by peers but is represented better as a dynamic reciprocal relationship involving personal choices. Another consideration is the combined effect of multiple peer groups on student engagement. What we know regarding how students handle conflicting pulls derived from engaged and disengaged peers during the learning process is relatively limited. An important set of research questions hanging over this shortfall demands exploration of the conditions and factors that enable students to align with engaged peers and continue their engagement while managing distraction from disengaged peers. Students' self-regulation and achievement goals may play an important role in this context. In addition, social skills will be instrumental for negotiating engagement amid distraction and promoting effective social engagement for working with engaged peers.

Teacher Influence

It is widely acknowledged that teachers and teaching form an important setting for understanding student engagement (Skinner & Belmont, 1993). Effective instruction supports student engagement. For example, Gillies and Baffour (2017) found that effective science teachers who promoted engagement spent a significant amount of time interacting with students using multimodal resources in science learning. The simultaneous provision of challenge and support facilitates engagement

(Shernoff et al., 2016). Aside from teachers' instructional practices, their influence on engagement can be examined for its effect on how classroom social and learning environments are constructed. Research on achievement goals indicates that teachers who help students focus on mastery goals or create a mastery-oriented learning environment are able to support students' effort expenditure, interest, and enjoyment as well as the use of deep learning strategies (Ames, 1992). Using Ames' proposed target framework (1992), a mastery-focused learning environment can be promoted in relation to six important dimensions, namely, designing a learning task, sharing of authority and control, recognizing effort expenditure, enabling group work, evaluating progress and improvement, and providing sufficient time and support. Subsequent studies (e.g., Friedel, Cortina, Turner, & Midgley, 2007) have shown that a mastery-focused environment motivates students' engagement in learning and promotes persistence and effort expenditure. Research adopting a self-determination perspective indicates that the provision of support addressing students' needs for autonomy, competence, and relation stimulates the development of self-determination, intrinsic motivation, and learning engagement. For example, Reeve (2013) found that self-determination-oriented classrooms encourage students' agentic engagement enabling them to voice their preferences and to contribute to a learning environment that supports their interests, needs, and engagement. These studies and findings provide convergent empirical evidence verifying the importance of corresponding cognitive facilitators in promoting engagement, suggesting that the effects of teacher influences are mediated through student–teacher interactions and students' perceptions about what their teachers value.

This brings our focus to student–teacher relationships, another aspect of teachers' channels of influence on students' engagement (Roorda, Koomen, Spilt, & Oort, 2011). Research indicates that teachers play an important role in providing emotional support to students. When teachers are responsive, warm, caring, and sensitive to students' need, students feel accepted and develop a strong sense of attachment. Research has also shown that teachers' emotional support is related to students' reported levels of enjoyment and effort expenditure. For example, adolescent students who considered their mathematics teachers emotionally supportive were more likely to enjoy learning mathematics (e.g., Sakiz et al., 2012). Engels et al. (2016) provided longitudinal evidence supporting the association between positive teacher–student relationship and behavior engagement. However, the quality of student–teacher relationship is highly variable. This suggests that the study of student–teacher relationship needs to be grounded in specific classroom contexts.

School Influence

School, as a social setting, exerts important influences on student engagement. Finn's (1989, 1993) model of engagement places a significant role on identification with school and positive school experiences. Feeling accepted and having a sense of belonging are important (Osterman, 2000). Students who feel safe at school will be more likely to engage in classroom learning (Côté-Lussier & Fitzpatrick, 2016).

A greater sense of belonging is associated with higher levels of expectation of success, effort expenditure and valuing of academic work (e.g., Roeser, Midgley, & Urdan, 1996; Anderman, 2003), and lower levels of anxiety and loneliness (e.g., Ozer, 2005; Shochet, Dadds, Ham, & Montague, 2006).

School factors such as school policies relating to the handling of bullying and disciplinary matters send important messages to students about behavioral expectations and safety. These school factors contribute to the development of a school climate wherein teachers and students share their beliefs and values that shape their interactions and understanding of accepted behaviors (Kuperminc, Leadbeater, Emmons, & Blatt, 1997). In a systematic review, Wang and Degol (2016) advanced a multidimensional understanding of school climate comprised by academic climate (ways that learning and teaching are promoted), safety (including physical and emotional security, order, and discipline), community (quality of interactions between members), and institutional environment (referring to conditions such as quality of physical facilities and availability of resources). Their review concludes that school climate is an important factor contributing to academic success, peer relationship, and psychological well-being.

School climate is not an objective entity. Students' perceptions play an important role in mediating the effect. For example, Ripski and Gregory (2009) found that students' collective perception of a hostile school climate predicted lower levels of individual engagement and reading achievement levels. In particular, students' perceptions of victimization negatively predicted individual engagement and lower levels of reading and mathematics achievement. In their study, individual engagement was measured using items assessing classroom behaviors including attention in class, completion of homework, and tardiness in classwork.

Limited attention has been given to the role of school principals in promoting student engagement. The lack thereof is likely due to a belief that student engagement is affected predominately by classroom and instruction practices and that many school principals contribute limited face-to-face activity to these practices. Nevertheless, there is some empirical evidence attesting to the effect of principals' leadership on student engagement. For example, using a large survey sample, Leithwood and Jantzi (2000) found their leadership had a significant relationship to student engagement. Quinn (2002) conceptualized the effect of principals using instructional leadership as a basic tenet and reported a significant relationship between principals' leadership and the teachers' instructional practices that promoted student engagement. In addition, Price (2015) showed that the principal–teacher relationship interrelated with teachers' beliefs about trust and support in school, features that subsequently were important in developing student engagement.

Familial and Community Influences

Parental involvement in school and student learning plays an important role in engagement. Fan and Williams (2010) found that parents who were involved in student learning, including providing advice regarding important learning

decisions, communication with teachers, and keeping in contact with the school, predicted whether students spent time studying, worked hard, and persisted when facing difficulties. There is a developmental component of parental involvement, which has implications for fostering parental practices and relationships with children. Different types and levels of parental involvement are expected for children at different ages and levels of schooling (Wang, Hill, & Hofkens, 2014). While parents' direct involvement, such as helping with homework, is expected among younger children, processes promoting parental academic socialization, such as discussing subject choices and importance of learning for future, are more important during their sons and daughters' adolescence (cf. Hong & Ho, 2005).

Additionally, effects of parental involvement may depend on critical variables such as parental practices, parental goals, and parent–child relationships. For example, authoritative parental practices, including high expectations for academic achievement and frequent interactions, are related to students' school adjustment, their willingness to put effort into learning (Simons-Morton & Chen, 2009), and prevention of school dropout (Blondal & Adalbjarnardottir, 2014). Simons-Morton and Chen (2009) found that such parental practices alleviated negative influences from misbehaving friends. Hill and Wang (2015) showed that students' aspirations, engagement, and academic pathways are highly associated with parental practices (monitoring, warmth, and support for autonomy). Parents' goal focused on learning and improvement is predictive of students' mastery orientations and their behavioral engagement (Gonida, Voulala, & Kiosseoglou, 2009). Nurturing parent–child relationships can also contribute to student engagement. For example, Murray (2009) found that it predicted students' self-rated level of school engagement, competence, and reading achievement.

Social bonds to a community promote behaviors and outcomes valued by community members. Hirschi's (1969) theory of social control includes four types of social bonds – attachment, commitment, involvement, and beliefs. When these bonds are strong, individuals will align their behaviors to the norms and values important to the community. When they are weak, it is more likely that individuals will withdraw from activities and behaviors valued by the community. Social bonds and the development of a community of learning are critical elements in alternative education provision for disenfranchised youth. Research in this area has shown the importance of providing support, safety, and acceptance in an alternative education site where young people are given a second chance in education. Successful cases are characterized by the creation of learning communities to which marginalized youths can experience feelings of attachment and acceptance as contributing community members (Wilson, Stemp, & McGinty, 2011).

Service learning is another pedagogical arrangement that connects community engagement and school learning. For example, Reinders and Youniss (2006) showed that students who engaged in community service and interacted with local people in need improved their prosocial behaviors and intended to engage in future civic pursuits. A meta-analytic review shows that service learning promotes civic engagement, social skills development, positive attitudes toward learning, and academic performance (Celio, Durlak, & Dymnicki, 2011).

Combined Effects of Social Facilitators

Based on our brief review, it can be assumed that each social facilitator should play a unique role in affecting engagement (independent effects). When combined, different social facilitators may enhance or dampen effects of others in the combination (interactive effects). For example, teachers may play an important role in buffering or dampening negative effects originating from a student's history of peer rejection and limited parental involvement regarding learning engagement. Parental support in terms of warmth and affection can moderate the effects of peer influences (e.g., Marion, Laursen, Kiuru, Nurmi, & Salmela-Aro, 2014). For example, Espinoza, Gillen-O'Neel, Gonzales, and Fuligni (2013) found that negative effects of peers on academic aspirations operated when there was a lack of parental support. Vollet, Kindermann, and Skinner (2017) showed that peer influences on student engagement were dependent on teacher involvement. They found that the most engaged students were those who received support from both their peers and their teacher. Students who showed sharp declines in engagement were those who were in friendships with disaffected peers and had teachers who were uninvolved with their learning. From their study, we draw a suggestion that social agents may work together to create a powerful social context to promote and sustain engagement and achievement.

An important focus for research is how social facilitators derived from different social systems might work together to support students who find it hard to engage in learning. While extant research continues to report the importance of social agents in each respective social system to support learning and engagement, more attention is required if we are to look meaningfully into how their activities can be coordinated to provide stronger support. Research on alternative education is moving in this direction, with the success of alternative education programs often arising from coordinated supports derived from multiple and interacting social systems including teachers, parents, peers, and community members. Mainstream schools have much to learn from the success of these alternative education programs in exploring how coordinated supports can be solicited from different social agents to promote productive engagement. Chapters 7 and 8 provide a discussion of alternative education programs in Australia and explain how social facilitators of engagement from different social agents work together to re-engage marginalized youths.

Current Research Models

Research on engagement is diverse and multifaceted. In reviewing research related to facilitators and indicators of engagement, we noted that different definitions and measurements have been used. In addition, research focuses on different aspects of engagement. It is therefore difficult to generalize the results to student groups with various age, gender, and cultural characteristics. Despite these issues, past research

on engagement can be aligned with one of the three heuristic models: models of engagement that are process-focused, those that are outcome-focused, and those that are integrated. In each case, engagement is central, and the focal concern is to establish its relationship with a set of key variables, in terms of what predictive ability, outcomes, or both might be expected and described. These models are not exhaustive. Our objective in presenting them is to highlight major lines of thinking in order to develop a foundation for critical reflection and for advancing our understanding of engagement as it applies to the learning and development of students coming through from disadvantaged backgrounds.

Facilitator-Focused Model: Engagement as a Desired Outcome

This line of thinking pertains to what contributes to or facilitates engagement. Engagement is understood as an important outcome on its own. Using this model, researchers have examined various enablers and antecedent variables that facilitate engagement. As previously discussed, these facilitators originate from two main sources, i.e., from students' own cognitive and motivational capabilities and from social conditions and supports derived from social agents and the learning environments created by these agents. Theorization of motivation and cognition has provided a strong foundation for developing research along this line of thinking. Using sociocognitive theories of this motivation, research in the past several decades has marked out a linkage between important motivational variables and engagement. This concerted effort has established that motivation and engagement are highly related and that motivation can facilitate engagement. Skinner and Pitzer (2012) stated that "engagement is the visible manifestation of motivation" (p. 135). Other motivation–engagement researchers generally are supportive of the crosscut features of the interconnection, agreeing that motivation underpins engagement while maintaining different ways to demarcate the two as variables in research. Over the past few decades, research in motivation has provided convergent support that cognitive facilitators, as identified in the previous section, are very important. Research on social facilitators is on the rise, and this has established the significant role of social context and various social agents in motivating engagement.

Outcome-Focused Model: Engagement as a Mediator

The outcome-focused model is particularly attractive to policy-makers and educators interested in using engagement to heighten educational achievement and to resolve educational problems and issues. In an outcome-focused model, engagement is either a predictor variable or a mediating variable leading to desired outcomes. In the literature of engagement, many studies have shown that different indicators of engagement are linked closely with important outcome variables

including achievement levels, reduced dropout rate, improved health conditions, well-being, and sense of belonging. In the absence of engagement or when disengagement dominates, negative outcomes can be expected. The logic looks rather simple. However, attention is required to develop viable and convincing explanations needed to build a feasible and sustainable theory of engagement that leads to improved outcomes. This theoretical endeavor includes specifying clearly, and convincingly, the processes and mechanisms whereby engagement promotes specific desired outcomes. At this stage, the outcome-focused model remains a form of confirmed association without justified causation.

Integrated Model: Engagement as Both Mediating and Outcome Variables

An integrated model of engagement is located where engagement is conceptualized as both a mediator of outcomes and an outcome variable itself. This complex linear model builds on the previous two models and attempts to examine interrelationships between a large set of variables in a systematic way. A well-articulated research model based on sound theoretical and empirical justifications is required for an integrated model to enable the identification and examination of a suite of hypotheses deciphering its complexity. Most integrated models incorporate three stages of variables. For example, Reeve and Tseng (2011) built a structural equation model simultaneously explicating the linkage between students' satisfaction of psychological needs, four dimensions of engagement (behavioral, cognitive, emotional, and agentic), and achievement levels. In this model, students' engagement was affected by the degree to which their needs for autonomy, competence, and relatedness were perceived satisfied. Agentic, cognitive, and emotional engagement acted as mediator variables that significantly predicted achievement levels. A study by Skinner, Furrer, Marchand, and Kindermann (2008) further exemplifies a three-stage model. Based on self-systems framework, they examined the interrelationship between teachers' autonomy and relational support (Stage 1); students' sense of autonomy, competence, and relatedness (Stage 2); and finally indicators of engagement comprised by cognitive and emotional dimensions (Stage 3). Testing of models that integrate more than four or more stages is rather limited, likely due to the complex relationships involved in model building. Another type of integrated model focuses on the reciprocal interaction between students' engagement and important factors and conditions present in their learning environment. For example, Skinner and Belmont (1993) confirmed the reciprocal relationship between teacher behavior and students' behavioral engagement. Engels et al. (2016) found that a positive teacher–student relationship was reciprocally related to students' behavioral engagement over time.

Taken together, these linear models of engagement are dominant designs guiding research studies in the field. They signify an input–output thought process, with

engagement conceived as an important variable at both ends. As an input, engagement is an independent variable or predictor variable leading to desirable outcomes. As an output, engagement is part of a motivation–engagement system where cognitive and social facilitators promote and sustain the operation and development of different forms or dimensions of engagement. Much has been done to clarify these endpoints of the system. Our concern is the limited research attention and effort on the hyphenation, i.e., the link between input and output. That link signifies important individual, situated and interactive processes, and mechanisms that facilitate engagement (or induce disengagement), which in turn leads to desired outcomes (or negative outcomes in the case of disengagement). By focusing on the complex processes of engagement, we can better understand how the facilitators work and under what circumstances their effects may be compromised. Additionally, this focus will contribute to understanding how and why engagement leads to specific outcomes and in what ways it can be taken as an anchor for developing interventions to promote these outcomes. In light of the purpose of this book, looking to research on the complex process of engagement is essential for understanding and explicating conditions and processes that may have prevented students from disadvantaged backgrounds from productively engaging in learning, and the extent of any allied disengagement may have contributed to issues such as underachievement, early dropout, and failure to thrive in schooling and post-school life. In doing so, we are able to avoid a deficit perspective that affords most of the blame to individual students from these backgrounds without playing sufficient attention to barriers and constraints that pervasively hinder their engagement.

Beyond the Current Models

To understand the complexity of engagement, we discuss three considerations—dynamic conceptualization, students' and teachers' voices, and problematizing engagement. These considerations are critical for advancing research endeavor that will elaborate processes and conditions that influence engagement beyond the conceptualization of linear models.

Dynamic Interplay of Influences

More research attention is required regarding the dynamic nature of engagement using theoretical perspectives sensitive to situated influences and dynamic interplay of personal, sociocultural, and institutional factors that affect engagement (Hickey & Granade, 2004; Lawson & Lawson, 2013). Both outcome-focused and facilitator-focused models are limited to one point of assessment or several of them if longitudinal designs are used. Such designs fail to account for variability of engagement and situational influences during engagement. The variance explained by these

"bookend" models is modest, indicating that still much remains unexplained. Engagement is far more complex than what these models explain. While more studies (e.g., Engels et al., 2016) have explored social and contextual influences on engagement, these influences are often conceptualized as extraneous factors situated outside an individual's psychological framework (Lawson & Lawson, 2013). A dichotomous conceptualization, highlighting the divide between individual and social realms, is not capable of revealing that individual's dynamic interaction with others during engagement or disengagement. Without careful investigation into the dynamic nature of engagement, teachers may be more inclined to consider engagement as an individual's psychological property and fail to see how engagement is being framed and intricately influenced by a large array of external factors and conditions at play with an individual's motivation and other psychological states during the engagement process.

Let's consider several learning situations that teachers often encounter, typically observable when students from disadvantaged backgrounds are involved. First, there are competing commitments and demands that distract students' attention or disrupt their engagement. Such competing demands may originate from situations involving a disruptive peer, unfinished assignments, or other personal concerns such as distracting ideation, for example, planning for after-school activities while ostensibly engaging with a class assignment. Second, there are students who are quietly disengaged. Such students are usually behaviorally engaged and demonstrate a high level of compliance to classroom rules and conduct expectations. However, they may not have genuine interest in a learning task and attempt to engage only at a superficial level in order to finish the task at hand while avoiding their teacher's attention, leading to less effort expenditure and time, and disregard for the adequacy of the task–demand and task–completion match. Third, students' engagement can be variable. It is not uncommon that students may feel like learning one day but not on another. On occasion, students may display conflicting engagement responses. For example, some students may feel interested in a topic the teacher presents but may not be willing to spend time and effort to complete the related assignments. Simultaneous presence of engaged and disengaged responses signifies engagement conflicts that are often experienced by students who have not yet developed a personal interest in a specific learning area. These learning situations highlight contradictions, variability, and complex interplay between engagement responses and situated factors (e.g., observing classroom rules).

There is certainly a need to go beyond linear thinking and research into the dynamic process of engagement. Such research aims not to develop generalizable models; instead the focus of the research is to describe, examine, and elaborate the complex and dynamic nature of engagement within, and across, different learning settings, both in and out of school. For example, engagement researchers need to examine students' completion of a specific task to understand how the engagement process is regulated and how such regulation is related to personal, social, and institutional factors. Students' interactions with peers and their teacher are significant influences affecting the engagement process. Additionally, out-of-school social agents such as parents can play important roles through verbal and other forms of

support they offer at home. The research results derived from studies that aim to understanding the complexity of engagement will provide much-needed research evidence enabling teachers and educators to better recognize what promotes and constrains engagement and to locate social and interactive processes and factors that are instrumental for developing learning environments more conducive to supporting their students' sustained and productive engagement.

Students' and Teachers' Voices

Researchers who study engagement have seldom taken account of students' perspectives and voices. Currently, our understanding of engagement is based on research using self-report instruments assessing engagement in predetermined categories in relation to indicators, facilitators, and outcomes. Students' perspectives and voices rarely have been included in conceptualizing and guiding engagement research. If engagement is understood as students' responses, the best starting point to appreciate this complex construct and to reveal its dynamic nature is to seek students' input. Students as active agents can find ways to go around classroom rules and to behave in ways that are acceptable, as in the case of quietly disengaged students. Their "survival without engagement" practices send a significant warning that engagement research urgently needs to attend to the role of student voice. When students think that their views are ignored or trivialized, they develop indifferent views, or even hostile attitudes, toward a teacher's intended and/or delivered lesson objectives. More importantly, students' perspectives are important for developing effective intervention to meet their needs.

It may be that students' misbehavior in school is a justifiable response to a learning environment where learning and activities are of limited personal relevance and interest. It is unreasonable to expect students to demonstrate a high level of engagement in a learning activity that they do not consider relevant or meaningful. To understand what and why students engage (and disengage) in a particular learning situation or learning task, seeking students' voice is an important point of departure to begin the research process. For example, adolescent students often claim that classroom activities or schoolwork are boring and do not interest them. Instead of taking this as an indication of disengagement, it is important to explore why, and under what conditions, students think this way and what accommodations could be applied. Another important consideration is that students and teachers may have different understandings of engagement. An examination of such differences will contribute to an ecologically valid formulation of engagement and intervention design that promotes and sustains engagement. From the perspectives of students needing to deal with different forms of disadvantage, acknowledging their views and perspectives about engagement is an important step toward their empowerment and liberation as lifelong learners.

Teacher voice is equally important. An important consideration in understanding the role of teacher voice in student engagement is to explore how teachers conceptualize engagement and their roles, and the roles of students, in ensuring all these variables operate as a synchronous phenomenon as often as possible. Using phenomenographic analysis, Harris (2011) identified six different categories of engagement based on interview responses derived from a sample of English teachers in Australian high schools. She labelled these six teacher-perceived engagement types as *behaving, enjoying, being motivated, thinking, seeing purposes and owning learning*. The results indicate that these English teachers focused on behavioral and cognitive dimensions of engagement with somewhat lesser emphasis on emotional engagement and no consideration of social engagement. The limitations revealed by these data seem important not only where teachers and students deal with content such as drama, music, and language studies that heavily emphasize student interaction and group work but in all study domains where the power of interaction is a force for better access, enablement, and participation in opportunities to learn and thrive. In addition to the influence of subject domain, teachers who work with different student groups in contrasting socioeconomic settings may conceptualize student engagement in different ways, and hence their expectation of students' contributions and participation may differ. For example, teachers who work with marginalized students in a site that offers alternative education will be likely to have a rather different set of measures for assessing behavioral engagement compared to teachers in the mainstream schools from which many of these students have been suspended or expelled. In the same vein, teachers who teach students with a disability may assess, activate, and reward social, behavioral, emotional, and cognitive engagement differently when compared to their peers working only with students without disabilities.

Engagement Can Be Problematic

Current thinking has taken engagement as a positive construct that can elicit positive responses and lead to desirable outcomes without considering sufficiently negative consequences associated with engagement. Engagement itself sometimes can be a double-edged sword bringing both positive and negative consequences. For example, valuing a task, or valuing performance in a task, a form of emotional engagement, will elicit effort expenditure. Nevertheless, valuing is also associated with anxiety. Several research studies have reported this association, suggesting that students monitor their engagement in such a way that anxiety is kept at a manageable level. Another example of negative consequences is the association between engagement and peer rejection. Children who behave and engage appropriately may be described by their peers as "teacher's pets," "nerds," and "acting white," depending on how their peers perceive engagement. In a longitudinal case study (Blackberry & Ng, 2016), we have documented how an indigenous Australian Year 5 student disengaged in reading as result of her group identity. As a member of a non-reader

group, this Aboriginal girl deliberately hid her interest in reading and refused to read in the class. These behaviors were the result of prior experiences of reading in her class that involved peer rejection by her own indigenous classmates and imperilled her ongoing identification with them as a peer group.

Current research in engagement has seldom problematized engagement. In the context of researching engagement among students coming from various disadvantaged backgrounds, a fundamental issue that makes engagement problematic is goal conflict, i.e., the differences between what teachers or parents want their children to achieve or focus on and the goals held by the students. Engagement in the context of goal conflict represents a negotiated outcome that is intricately tied with values, norms, and expectation that different players hold and share. In this context, when teachers complain that students are disengaged, it means that these students do not value the learning goal set by the teacher and they do not do what is expected of them by the teacher and peers complicit in pursuit of the teacher's goal. From students' perspectives, their failure to spend effort and time on an academic task set by the teacher indicates that they do not value the task or that they have other goals or priorities that are not consistent with the one assigned by the teacher or parent. Goal conflicts therefore may beget disengagement or superficial engagement, if such differences cannot be resolved.

Two levels of dynamics, personal and contextual, may complicate the goal conflict process that students from disadvantaged backgrounds frequently experience. At the individual level, these students may consider themselves lacking the required levels of confidence, knowledge, and skills and therefore withdraw their effort, likely resulting in low levels of achievement and making future engagement difficult and disengagement the preferred course of action. Many students from disadvantaged backgrounds are likely to be trapped in such a vicious cycle of disengagement due to their belief focus on personal limitations and a lack of support. At the level of person–task interaction, these students' engagement is challenged by issues originating in their own personal limitations. When working on a specific learning task, they may worry about their abilities and whether they can finish the task in an acceptable and timely manner. More significantly, many have shown limited interest in learning tasks assigned to them by their teacher.

Their interaction goes beyond the task level to involve other individuals within the learning setting, which provides a context that often constrains their engagement. We have seen how peers distract each other in learning, which often invokes teacher intervention, control, and disciplinary actions. Research (e.g., Skinner & Belmont, 1993) warns us that teachers often inadvertently reinforce disengaged responses from their students. Teachers may provide insufficient support to disengaged students thinking that they are not keen to learn, or they provide these students with a diet curriculum to tailor tasks ostensibly to their low performance levels. While some help can be derived from this type of teacher' response, ironically, such practices aggravate the problems of underachievement and disengagement, as classwork becomes more mechanical, repetitive, and potentially disengaging. These various forms of context dynamics are not new. Teachers, parents, and students are familiar with them. In a longitudinal interview study (Ng,

Wyatt-Smith, & Bartlett, 2016), we have documented examples of these context dynamics in relation to low SES students' experiences of learning and preparation for national testing on literacy and numeracy in Australia. The low SES students in this study shared their learning experiences, with most voicing their interest in learning from the test while their teachers made negative comments about it, communicating their low achievement expectations, and making limited effort to utilize the test results to promote learning for these students. In doing so, these teachers sent an important message to their students that they were not expected to engage in learning for the test and that they were not expected to learn from it.

From the perspective of linear models of engagement, these personal and context dynamics are complex and hard to reduce to manageable research hypotheses. If, however, engagement is seen as a critical component in addressing entrenched educational issues such as underachievement, disaffection and dropout, and poor preparation for accessing and flourishing in life's opportunities, empowering engagement for students from disadvantaged backgrounds needs to recognize and account for these complex dynamics, understand the processes, and design interventions to address them appropriately. Otherwise, debilitating person and context dynamics will continue. If this happens, students from disadvantaged backgrounds will be further disadvantaged and at risk of marginalization as their "disengaged" responses to learning seem to them, and possibly to their teachers and peers, to be aligned with personal and unchangeable limitations. Urgent attention and action are required to go beyond the current linear research models and focus on the process of engagement or the act of engagement and situate it within person and context dynamics. In conducting such critical research, vulnerable students play a central role in assisting us to improve our understanding of their acts of engagement and disengagement as part of the personal and context dynamics.

A Way Forward

It is important to build on multiple conceptualizations and approaches to engagement research due to the complexity of the issue. One way to deal with the diverse definitions and approaches to engagement research is to distinguish two levels of research, namely, lowercase engagement and uppercase engagement models. Lowercase engagement research will continue to allow researchers to develop and research engagement as part of learning and teaching processes using different measurements and conceptualizations, while an uppercase engagement model will allow researchers to isolate general patterns across different studies to produce a list of central considerations or principles that can be shared among researchers. This proposed way forward is not intended to limit or narrow research to a specific perspective nor to privilege a specific theoretical point of view. Instead, the proposed lowercase and uppercase models will facilitate new and diverse understandings of engagement. In particular, lowercase engagement models will continue to enrich the field using existing and new frameworks and perspectives. Our suggestions to focus

on dynamic interplay of influences, student voice, and problematizing engagement will lead to a better understanding of the complexity of engagement that current linear models only partially reveal. The uppercase engagement model will benefit from the rich pool of research populated by lowercase engagement studies, which will eventually contribute to the development of an engagement theory. Studies and research investigations that were discussed in Chaps. 4, 5, 6, 7, and 8 can be classified as lowercase engagement research. While an uppercase model of engagement is yet to be developed, we have taken the initiative to use an uppercase lens to discuss a list of key considerations for researching engagement and disengagement based on our review of the research in the field. These key considerations can be found at the end of Chap. 1.

Chapter 3
Access and Opportunity to Learn: Essentials for Academic Engagement

Access is a fundamental educational principle. Effective access involves overcoming barriers that limit students' meaningful engagement in learning and demonstrating what they have learned. Such access leads to opportunities to learn (OTL), a defining goal for all educators who are motivated to advance the development of students of all kinds. People need many opportunities in the process of acquiring new knowledge and skills to listen and interact with a teacher or other learners, many opportunities to apply these skills and receive feedback regarding their correctness and effectiveness, and many opportunities to generalize their knowledge and skills with others and to other situations.

Accessibility—defined as the extent to which a product, environment, or system eliminates barriers and permits equal use of components and services for a diverse population of individuals—is necessary for effective instruction and fair testing (APA, AERA, & NCME, 2014; Kettler, Elliott, Beddow, & Kurz, 2018). To the extent that instruction, instructional materials, and tests are not accessible to any portion of the student population, engagement is undermined, learning is likely to be incomplete, and inferences made from observations and test results are likely to be underestimates of a student's actual knowledge and skills. Optimal accessibility is promised implicitly to all students. Delivering on the promise of accessible instruction and testing practices, therefore, is a shared responsibility for educational stakeholders, including teachers, school leaders, policy-makers, software developers, textbook authors, test designers, and many others. The availability of access to learning situations and accessibility of meaningful learning opportunities are necessary, if not sufficient conditions, for engagement—cognitively, behaviorally, emotionally, autonomously, and socially—in learning that results in the use of knowledge and skills. In this chapter, we focus on access to meaningful learning opportunities that optimize students' engagement in instruction and classroom assessments and conceptualize accessibility to instructional materials and classroom tests as important enablers of meaningful and active participation. The engagement-enhancing strategies featured in this chapter are considered by many to focus primarily on cognitive aspects of students' learning; however, with more robust cognitive

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engagement often comes more successful learning experiences, which, in turn, can improve students' learning behaviors, collaboration with others, and attitudes about learning to reduce educational exclusion in important ways. Thus, the goals of this chapter are first to understand the evolving concepts of access, accessibility, and opportunity in relation to learning; then to examine strategies based on these concepts for increasing cognitive, emotional, and behavioral engagement for all students; and, finally, to translate theory- and research-based findings on accessibility into actionable guidelines for teachers.

Case Vignette: *Overcoming Barriers to Learning and Showing What You Know*
Setting: Eighth-grade science class
Situation: Class lesson with an activity about types of friction and ways to reduce friction
Persons involved: Teacher, classmates, and Sarah

Mr. Vincent was excited today. He was going to teach one of his favorite topics: *Friction*. He knew some of his students would readily understand the concept and be able to jump right into the activity he had planned. He also knew that a couple of his students, Sarah, for example, would find it uninteresting and probably difficult to understand. He wanted to be sure that everybody understood the concept of friction and planned to teach a hands-on activity to increase the likelihood that learning happened for each student, Sarah included, who came from a poor family.

Mr. Vincent started his lesson by writing the word *friction* on the board and asking, "What is Friction? Why is it important?" He paused for perhaps a minute to let students think. Mr. Vincent used wait time well and would walk around prompting all students to think about friction. Nearly 80% of the class had raised one of their hands to signal they had an answer. Sarah wasn't one of them, nor did it seem that Matthew or Drew, both of them came from the same neighborhood where Sarah lived, had an answer or any interest in the questions. He smiled, moved closer to Sarah and Drew, and said, "By the end of the class today, everybody will be able to answer these questions if you listen closely and do the activity that follows my short lesson. Right Drew? Sarah is with us?"

He started his lesson by stating: "Friction is the resistance to motion of one object moving relative to another. Listen again: Friction is the resistance to motion of one object moving relative to another object. It is not a fundamental force, like gravity or electromagnetism. Instead, scientists believe it is the result of the electromagnetic attraction between charged particles in two touching surfaces. Did you hear that? Friction involves two touching surfaces."

Mr. Vincent paused for a few seconds, walked around the classroom saying, "Friction involves two touching surfaces." He stopped at Sarah's desk and picked up her pencil and moved it across her desk and noted it moved easily. He then asked Sarah to move her eraser across the desk, which she did. It did not slide easily.

Mr. Vincent moved to the front of the class and continued his lesson and asked every student to write down two words—*static* and *kinetic*. He also wrote the words on the board. After observing that all students had written these words down, he said, "Static friction operates between two surfaces that aren't moving relative to each other, while kinetic friction acts between objects in motion. Please make a note of these points: static friction is about objects not moving, while kinetic friction is about moving objects. Are there any questions?" A few students raised their hands. Surprisingly, Sarah was one of them (who was often rather reluctant to ask questions in the class), so Mr. Vincent called on her. She wanted to confirm that when they had rubbed the sandpaper sheets together that it was an example of kinetic friction. Mr. Vincent answered enthusiastically, "You're totally correct, excellent application of the definition."

Mr. Vincent called for the class' attention once again. He stated, "Let's continue to think about examples of friction or more specifically applications of friction. Friction plays an important part in many everyday processes. For instance, when two objects rub together, friction causes some of the energy of motion to be converted into heat. This is why rubbing two sticks together will eventually produce a fire. Friction is also responsible for the wear and tear on bike gears and other mechanical parts. That's why lubricants, or liquids, are often used to reduce the friction—and wear and tear—between moving parts." Mr. Vincent then requested each student to take a minute or two and write down three key points they had heard today about friction. He noted there were no wrong answers, just what they personally thought was important to remember about what friction is and why it is important.

While all students were beginning to respond in writing, Mr. Vincent walked over to where Sarah was seated. She was not writing. He asked her, what are you thinking? She looked confused but did say she knew what friction was and could tell when something was moving and at the same time creating friction like when they had rubbed the sandpaper. Mr. Vincent smiled and reinforced her responses. "Now try to write that information down in a sentence or two," he suggested. Sarah smiled a little and then made an effort to write some notes about the friction lesson.

Mr. Vincent noted most students were done writing, so he called on a few to read what they had written and then asked Drew to help him once again start another activity. A fun experiment. He gave Drew ten spinners to share with ten classmates and ten tops to share with another ten classmates. The activity was to determine through observation, which surfaces created the least amount of friction for spinners and which for the tops. Students worked in pairs and recorded their observations to discuss at the start of class tomorrow. Both Sarah and Drew were active participants in the activity and completed observation notes, although brief, before leaving class.

Outcomes: Mr. Vincent is an engaging teacher who demonstrated a good understanding of his students' learning needs, including those who came from poor families, and actively encouraged and supported them to participate. His science lesson on friction was designed with engagement in mind. For example, he started by getting the students' attention, a prerequisite to their engagement. He then posed two questions—in both written and spoken format—to stimulate their thinking and to

encourage them to respond. When this approach didn't get a response from Sarah and Drew, he moved next to them, using physical proximity, a smile to show his support, and another question to get their responses. Once they responded, connecting with him just a little, he moved forward with the rest of the lesson, but he stayed "in touch" with Drew and Sarah consistently throughout the session and actually involved them in some hands-on demonstration to facilitate engagement and comprehension of important aspects of friction. Thus, Mr. Vincent created a lesson that provided all students with opportunities to think and respond, to get feedback, and to interact with their classmates. These aspects of the lesson seem to have encouraged all students to be involved, while Mr. Vincent concurrently was able to personalize aspects of the session for Sarah and Drew, both of whom were generally responsive to the opportunities provided them.

In the instructional lives of many learners, particularly learners who struggle academically and students with disabilities, there often are a number of access barriers that limit meaningful engagement. These barriers often start with limited opportunities to learn the intended and assessed curriculum. They also often involve denial or disruption of receipt of individualized accommodations for learning and assessments that can invalidly characterize knowledge and skills. Unfortunately, these barriers confront students from disadvantaged backgrounds who struggle disproportionally and deny or limit their meaningful engagement in learning (Elliott, Kettler, Beddow, & Kurz, 2018). Fortunately, however, there are strategies and resources to overcome these access barriers to OTL and minimize or overcome educational exclusion.

Key Access Concepts and Strategies to Improve Engagement

Access is an issue for all students, including those who come from economically, culturally, and linguistically disadvantaged backgrounds, when it comes to engagement in classroom learning and assessments. Access involves the availability of a learning opportunity and the ability to participate in the learning event. Access is diminished by limited opportunities to learn valued content, poor or limited instructional and assessment accommodations, as well as by test items that feature extraneous content and designs insensitive to persons with various disabilities and students' cultural backgrounds. Given our definition of engagement—i.e., *student's active participation in academic and co-curricular or school-related activities, and commitment to educational goals and learning…*—it is clear that access matters. Barriers to access involve cognitive, social, and emotional aspects of learning events. Research and theory regarding access has focused on cognitive aspects of materials and teachers' actions that can function as barriers to engagement (Beddow, 2018). Barriers to full access may occur at several points in the learning process: with the introduction of a lesson, during instruction, with the design of classroom tests, and during testing events. So how can teachers overcome these barriers and improve access, make learning events meaningful and

interesting, and thus optimize engagement for all their students, specifically those coming from disadvantaged backgrounds?

Five interrelated evidence-based strategies have emerged from the research literature that many teachers have used to overcome access barriers and improve students' meaningful engagement with classroom learning and assessment events under varying conditions. These strategies are (a) the opportunity to learn strategy, (b) the universal design for learning strategy, (c) the cognitive load reduction strategy, (d) the accessible test design strategy, and (e) the instructional and testing accommodation strategy. These strategies are primarily cognitive in nature and can be complemented with additional strategies that address the sociocultural and emotional side of engagement—e.g., promoting belonging and relationship and developing facilitative classroom talk and conversation. Teachers are the primary implementers of these strategies and need to be knowledgeable about them and timely in applying them. Each of these cognitive strategies is described next with key supporting research summarized.

Opportunity to Learn Strategy

To acquire intended knowledge and skills, students must first have an opportunity to learn what is expected of them. A teacher's classroom instruction and how he/she manages classroom interaction and rules to govern them provide this opportunity on a daily basis. While having an OLT may not be sufficient for actual learning, it certainly is a necessary condition for engagement. This simple fact is one of the main reasons why the concept of OTL has been used for decades to describe and measure the various instructional inputs and processes that can lead to engagement and desired student learning outcomes. Moreover, opportunity to learn represents the most critical access point to the general curriculum for all students and specifically for those coming from disadvantaged backgrounds (Kurz, 2011, 2018). Next, we discuss the concept and research related to OLT. Our discussion applies to all students including those from disadvantaged backgrounds.

We conceptualized OTL as a teacher effect forming a significant part of the context that promotes and empowers active participation for students coming for various disadvantaged backgrounds. That is, teachers provide OTL through their instruction, management of classroom interaction, and design of learning activities and assessment tasks, which is part of the enacted curriculum. We argue that such teacher effect is essentially part of the context dynamics (see Chap. 2) that either support or constrain student engagement. Although researchers (e.g., Carroll, 1963; Porter, 1995; Kurz, 2011) have provided different definitions for OTL, they developed instructional indices for measurement purposes along three distinct dimensions of the enacted curriculum: time, content, and quality (Kurz, 2011). OTL has been discussed in instructional circles for decades (e.g., Kurz, 2018), and with the recent revision of the Standards for Educational and Psychological Testing (APA, AERA, & NCME, 2014), it has become a central aspect of test fairness as well. In

its most general definition, OTL refers to the opportunities that schools afford their students to learn what is expected of them (Herman, Klein, & Abedi, 2000). As Kurz (2011) noted, this definition highlights two important issues: the "who" and "what" of OTL. The "who" are students (and teachers), and the "what" are the learning and learning expectations for these students in the subject-specific content standards at their grade level (and also the teacher's teaching). The content of these standards is typically referred to as the intended curriculum (Porter, 2006). Consequently, OTL can be characterized simply as students' opportunity to learn the intended curriculum (Kurz, 2011). In this book, we have built on this conceptualization and applied it to examine opportunities to learn in the context of social skills development (Chap. 4), reading engagement (Chap. 5), mathematics aspirations (Chap. 6), re-engagement of marginalized adolescents (Chaps. 7 and 8). In the section that follows, we take a microscopic perspective to examine OTL in instructional and assessment designs that form the most important and regularly encountered setting where all students including those from disadvantaged backgrounds engage in learning. Our argument is that careful attention to instructional and assessment designs reduces barrier to learning and promotes equitable OTL for students who are disadvantaged as a result of economic, sociocultural, and linguistic limitations.

Three strands of research have emerged with OTL and classroom instruction. This research has focused on three malleable variables: the content of instruction (e.g., Rowan & Correnti, 2009), the time on instruction (e.g., Carroll, 1963; Vannest & Hagan-Burke, 2010), and the quality of instruction (e.g., Pianta, Belsky, Houts, Morrison, & NICHD, 2007). Researchers also have provided empirical support for the relation between each of those OTL variables and student achievement (e.g., Elliott, Kurz, & Schulte, 2015; Gamoran, Porter, Smithson, & White, 1997; Thurlow, Ysseldyke, Graden, & Algozzine, 1984). Thus, there is substantial research that suggests by increasing instructional time on content in the intended curriculum and using practices known to enhance engagement and learning, student performance on achievement tests of the content is very likely to improve. In other words, when teachers effectively increase OTL of the intended curriculum, they are helping students directly to overcome a major barrier to academic success! This, of course, is easier said than done because it is difficult for many teachers to effectively monitor and change these attributes of their instruction without specific feedback. Much more information is provided about these malleable variables of instructional time, instructional content, and instructional quality and strategies for improving achievement in a recent Opportunity to Learn Research-to-Practice Brief (Kurz, Elliott, & Schulte, 2015).

The OTL dimension of instructional quality involves three aspects, cognitive demand or depth of knowledge (i.e., recall, skills/concepts, strategic thinking, and extended thinking), teaching practices (i.e., direct instruction, visual representation, talk aloud, modeling, questioning, and assessment of knowledge), and grouping formats. Collectively, the actions of teachers covered by the instructional quality dimension of OTL intersect nicely with a number of strategies for being responsive to the sociocultural background and needs of students examined in subsequent chapters on reading and mathematics engagement.

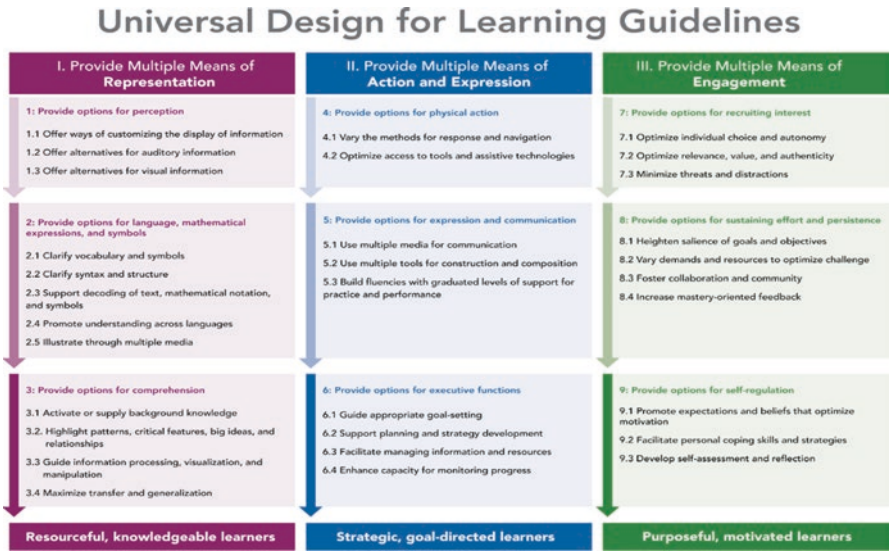

Fig. 3.1 Universal design for learning guidelines

Universal Design for Learning Strategy

The concept of Universal Design also has influenced design of instructional materials/practices and is recognized as Universal Design for Learning (UDL). UDL is a scientifically valid framework for guiding educational practice (Higher Education Opportunity Act of 2008). Accordingly, it (a) provides flexibility in the ways information is presented, in the ways students respond or demonstrate knowledge and skills, and in the ways students are engaged and (b) reduces barriers in instruction; provides appropriate accommodations, supports, and challenges; and maintains high achievement expectations for all students, including students with disabilities and students who have limited English proficiency. Figure 3.1 provides an overview of core UDL guidelines and principles.

The UDL Guidelines are organized according to three main principles: (a) provide multiple means of representation, (b) provide multiple means of action and expression, and (c) provide multiple means of engagement. For each of these principles (see Fig. 3.1), specific "checkpoints" are provided followed by examples of practical suggestions. A closer look at each of the UDL Guidelines is instructive.

Principle #1: Provide Multiple Means of Representation

The principle behind providing multiple means of representation is that students differ in the ways that they perceive and comprehend information that is presented to them, so it is essential to provide them options for representation. These

individual differences can be compounded as a results of students' SES backgrounds, ethnicity, and their life exposure. For this principle, there are three option guidelines: (1) provide options for perception; (2) provide options for language, mathematical expressions, and symbols; (3) provide options for comprehension. Collectively, these options maximize the alternative ways students' can express themselves and respect differences that may be the result of varying educational and sociocultural experiences.

Principle #2: Provide Multiple Means of Action and Expression

Students differ in the ways that they can navigate a learning environment and express what they know. For example, students with significant physical impairments (e.g., cerebral palsy), students with strategic and organizational abilities (executive function disorders), students who have speech or language difficulties, and students from different cultures each may approach learning tasks differently. Some students may be able to express themselves well in written text, but not speech or vice versa. In practice, there is not one means of action and expression that will be optimal for all students, thus providing students options for expressing themselves is important to an inclusive approach to learning that maximizes opportunities to learn.

Principle #3: Provide Multiple Means of Engagement

Students' affect represents a crucial element of their learning. Students differ markedly in the ways they can be engaged or motivated to learn. A variety of sources exists that influence individual variation in affect including culture, personal relevance, and background knowledge, along with a variety of cognitive factors. Some students are highly engaged by spontaneity and novelty, while others are disengaged, even frightened, by those aspects, preferring a predictable routine. Some students like to work alone, while others prefer to work with their peers. In sum, there is not one means of engagement that will be optimal for all students in all contexts, so providing multiple options for engagement is essential. Three guidelines for the UDL principle of provide multiple means of engagement are central to this book and are explored in more detail than the previous two principles.

Guideline on Providing Options for Recruiting Interest

As noted by Rose and Meyer (2002), information that is not attended to, which does not engage students' cognition, is in fact inaccessible. It is inaccessible both in the moment and likely in the future because relevant information goes unnoticed. As a

result, teachers often need to devote considerable effort to "recruiting" students' attention and engagement; however, students differ significantly in what attracts their attention and engages their interest. Even the same student will differ over time and circumstance; their "interests" change as they develop and gain new knowledge and skills, as their biological environments change, and as they develop into self-determined adolescents and adults. It is, therefore, important to have knowledge about students' economic and sociocultural backgrounds and alternative ways to recruit students' interest given their life experiences and knowledge of a subject matter.

Guideline for Providing Options for Sustaining Effort and Persistence

The learning of skills and strategies for most students requires sustained attention and effort. When motivated to do so, many students can regulate their attention and affect to sustain the effort and concentration required. However, students differ considerably in their self-regulatory abilities. Many students will need help in learning to manage or self-regulate themselves effectively. A key UDL instructional goal is to build the individual skills in self-regulation and self-determination that will equalize learning opportunities. In the meantime, the external environment must provide options that can equalize accessibility by supporting learners who differ in initial motivation, self-regulation skills, and interests. This promotes equitable opportunities to engage in learning for students who are deprived of such engagement at home due to various forms of barriers originated from economic and sociocultural constraints.

Guideline for Providing Options for Self-regulation

While it is important to design school and classroom environments so they can support engagement, it is also important to develop students' abilities to regulate their own emotions and learning behaviors. The ability to self-regulate—to strategically modulate one's emotional reactions or states to be more effective at coping and engaging with the environment—is a critical aspect of development. While many individuals develop self-regulatory skills on their own, either by trial and error or by observing successful adults, many students from disadvantaged backgrounds or with disabilities have significant difficulties in developing these skills. Many teachers, unfortunately, do not teach self-regulation skills explicitly, leaving them as part of an "implicit or hidden" curriculum that is often inaccessible to many students. Teachers that address self-regulation explicitly will be more successful in applying the UDL principles through modeling and prompting in a variety of situations. A successful approach to teaching self-regulation requires providing sufficient alternatives to support students with different backgrounds, abilities, and prior experiences to effectively manage their own affect and ultimately engagement.

With this detailed examination, we trust you see the potential power of the UDL strategy to overcome instructional barriers and facilitate meaningful engagement in learning for all students. For much more information about the other UDL principles and their guideline options and checkpoints, visit the website for the National Center on Universal Design for Learning (http://www.udlcenter.org) where there are examples and resources to guide implementation and a summary of the research evidence in support of each checkpoint.

Cognitive Load Reduction Strategy

In the article, *The Magical Number Seven, Plus or Minus Two: Human Limits of Information Processing*, Miller (1956) applied Shannon's (1948) information theory to human cognition research. Miller's work suggested a limitation to the amount of information humans' can process existed. Specifically, Miller concluded people are able to process on average, seven elements $\pm$ two elements, after which there is likely to be a degradation in recall accuracy. Miller referred to this upper limit as *channel capacity*, a conclusion that represented the inception of the notion of working or short-term memory. Over the past several decades, many have dismissed the mean (i.e., 7 ± 2) informational capacity claim, but Miller's underlying limitation assumption is widely accepted and continues to stimulate research and influence theory (Baddeley, 1994, 2003; Beddow, 2018; Cowan, 2001).

Sweller (2010a), influenced by Miller, argued there are five principles that govern the functions and processes of human cognition, particularly with regard to knowledge acquisition. These principles are (a) long-term memory store, (b) schema theory, (c) problem-solving and randomness as genesis, (d) novice working memory and narrow limits of change, and (e) environment organizing and linking.

Sweller (2010b) described the long-term memory store as the central structure of human cognition and asserted our understanding of the complex store of information people use to govern their activity develops slowly. Specifically, he cited researchers who found the only difference between master chess players and less-able counterparts was the masters' memory of a store of game board configurations (Simon & Gilmartin, 1973). In terms of learning theory, long-term memory also has been found to be a predictor of expert–novice differences in other relevant areas.

Sweller's (2010a) borrowing and reorganizing principle explains how long-term memory can be acquired and organized for retrieval. Although most long-term memory involves acquiring knowledge from the knowledge stores of others, the way individuals organize information varies widely. Specifically, by categorizing and bundling multiple elements of information into a single element, a learner can manage more information. Clark, Nguyen, and Sweller (2006) indicated that learning occurs most efficiently when a learner's construction of schema is automated. They hypothesized that for schema construction to be automated, a learner must have a broad enough store of information in long-term memory so that single elements can "fit" into schemas without requiring additional cognitive resources.

Thus, the instructional implications of cognitive load theory largely apply to how to facilitate the retrieval, or borrowing, of information from long-term memory for the purpose of schematization—or, at least, how to reduce extraneous cognitive demand, thus ensuring the availability of cognitive resources for schematization. Since long-term memory storage varies across individuals, no two learners schematize information in exactly the same way.

The third principle of cognitive load theory is the *problem-solving and the randomness as genesis principle*, which explains how information is generated in the first place. Specifically, while a learner may be able to solve most problems based on long-term memory stores, new problems may have two or more possible solutions. As the learner tests these solutions, their effectiveness determines how the new problem and solution will be added to long-term memory. Randomness as genesis will only occur when no definitive information is available to solve a problem, for Sweller (2010a) argued, "if knowledge is available to us, we are highly likely to use it" (p. 36).

The fourth principle, *novice working memory and narrow limits of change*, explains how as schema formations are changed, the amount of change is governed by the learner's working memory. Sweller (2010b) argued the limited capacity of working memory that ensures adaptive structures of knowledge is not compromised because large, rapid changes in long-term memory likely will be deleterious to one or more schemas useful for problem-solving and other cognitive activities. This concept is central to cognitive load theory, which explains how instruction is most effective when the novice learner is not expected to borrow information from long-term memory that could be presented to them without compromising the objective (i.e., by definition, novices do not possess large stores of information related to the content at hand). When instruction requires learners to borrow information from long-term memory, the learner's available working memory is limited, and, depending on his/her working memory capacity, the potential to solve novel problems or engage in novel cognitive activities also may be limited.

Sweller's (2010a) fifth principle, *expert working memory and the environment organizing and linking principle*, explains that the primary difference between experts and novices is in the efficiency with which he/she can transfer large amounts of information from long-term memory to be used in working memory. An expert is able to organize and link information from long-term memory with environmental information to generate appropriate actions. The novice, by contrast, has reduced ability to organize and link information from long-term memory with environmental information, resulting in less efficient use of working memory and reduced cognitive capacity to generate appropriate actions.

Using the principles and assumptions of cognitive load theory as a framework, cognitive load can be categorized into three types: *intrinsic* load, *extraneous* load, and *germane* or *effective* load. Intrinsic load refers to the number of items, or elements, of information that simultaneously must be considered or processed for learning to occur. Sweller (2010a) calls this *element interactivity*. The greater the element interactivity of instruction, the greater the consumption of working memory and the fewer cognitive resources for processing new information (also known

as *working memory load*). The second type of cognitive load (this is not consistent with the ordering above—you have created extra load for my reading of this part!) is the logical opposite of the first: *extraneous* load. Extraneous load refers to the demand for cognitive resources that do not facilitate useful change to the long-term memory store (i.e., learning). Cognitive load theory research primarily has focused on ways to reduce or eliminate extraneous load in instruction. The third type of cognitive load is *germane* (or effective) load or the demand for cognitive resources that are relevant or germane to the acquisition of the knowledge or skill. Cognitive load theory assumes that as long as effective load in instruction does not exceed the working memory capacity, it facilitates learning. That is, the more relevant the items that can be brought into working memory for schematization, the better; the more opportunities the learner has to "fit" item elements into existing schema, the greater the probability the schematization will occur automatically (i.e., requiring no additional working memory load).

Proponents of cognitive load theory argue the intrinsic load of instructional tasks is the load required to learn the primary objective(s) of the task, while any germane load demands of the task support the generalization of student learning and/or higher-order thinking—typically a secondary objective of the task (Debue & Van De Leemput, 2014). Thus, depending on the balance and intensity of the task demands, cognitive overload may limit the attainment of either or both of the instructional objectives. Finally, it generally is accepted that the extraneous load demands of instructional tasks should be avoided whenever possible to permit learners to allocate needed cognitive resources to the intrinsic and germane load demands of the tasks. In summary, the cognitive load of the tasks students are working on matters when it comes to engagement in the tasks and completion of the work (Beddow, 2018).

Accessible Test Design Strategy

Assessment is an important part of instruction, especially classroom tests and interim/formative assessments designed to provide both students and teachers feedback on learning progress. The results of research on accessibility suggest many achievement test items written by teachers and professional test developers alike can be improved to reduce access barriers and enhance measurement of the targeted constructs (Elliott & Kettler, 2015). Accessible test items, therefore, must contain little or no content that compels a student test-taker to demonstrate skills that are irrelevant to the construct intended for measurement. Equally important is that accessible test items should be written taking into account students' cultural values and knowledge and should avoid arousing cultural conflict and misunderstanding and rendering students' inabilities to respond due to these cultural issues (e.g., religious issues, values regarding alcohol, card games, being photographed by others). This is of particular importance when skills that are required in addition (i.e., prerequisite skills) to the target construct are challenging and culturally inappropriate

for the test-taker. Of these prerequisite skills, a common example concerns the need to read narrative text to solve many mathematics problems. For a student who comes from a poor family with low reading ability, complex text in a mathematics test item likely represents an access barrier that may preclude him or her from fully demonstrating knowledge, skills, and/or abilities in mathematics. Many students who experience a series of test problems that are difficult to cognitively access, owing to whether lacking of required background knowledge or lacking of relevant social and cultural experiences and understanding, will disengage and either start guessing or simply quit the test (Feldman, Kim, & Elliott, 2011). The inclusion of extraneous and/or construct-irrelevant demands, therefore, must be addressed at both the test and item levels to ensure that the resulting scores represent, to the greatest extent possible, a measure of the intended construct that is free from the influence of ancillary interactions due to access barriers arisen from personal, sociocultural, and economic limitations. To this end, cognitive load theory (CLT; Chandler & Sweller, 1991), a model for understanding the effects of various features of instructional task demands on learning outcomes, offers a useful lens through which to understand and evaluate the accessibility of tests and items. With the limitations of human working memory in mind, CLT indicates for optimal learning efficiency, designers of instructional materials and test items should aim to eliminate extraneous load while maximizing intrinsic load. This helps a learner allocate his or her cognitive resources to the primary objectives of the task or test item and not be burdened by extraneous material irrelevant to the process of solving the problem.

In relation to promoting learning and engagement for students with disabilities, the CLT and UDL guidelines, and knowledge of information processing, effective tools can be developed for educators to develop accessible test items that yield scores from which inferences are equally valid for all test-takers. Specifically, Beddow, Kettler, and Elliott (2008) developed the Test Accessibility and Modification Inventory (TAMI) and the TAMI Accessibility Rating Matrix (ARM; Beddow, Elliott, & Kettler, 2009). These tools are available to teachers and test developers at http://www.accessibletesting.com/tami/ for the design and evaluation of items on classroom and large-scale tests. The Accessibility Rating Matrix consists of a diagnostic checklist and item analysis rubric for evaluating items. A teacher or test developer begins by using the item analysis rubric to evaluate the accessibility of the items (he/she created or others have created) according to five basic elements of a multiple-choice test item (see Fig. 3.2): (a) the item passage and/or stimulus, (b) the item stem, (c) visuals, (d) answer choices, and (e) the page and/or item layout. Given the performativity culture in education and persistent achievement gaps between students who are disadvantaged and students who are non-disadvantaged in key areas of learning reported in national and international tests, it is important to take a microscopic perspective and to look specifically into how test items can be developed to promote accessibility and to reinforce students' opportunities to learn. Much of the concerns about the educational plight of students who are disadvantaged stem from their underperformance on assessments. A reflection on the construction of test items using ARM is warranted in light of promoting engagement for students who come from various disadvantaged backgrounds and trying to maximize access to tests used to evaluate them.

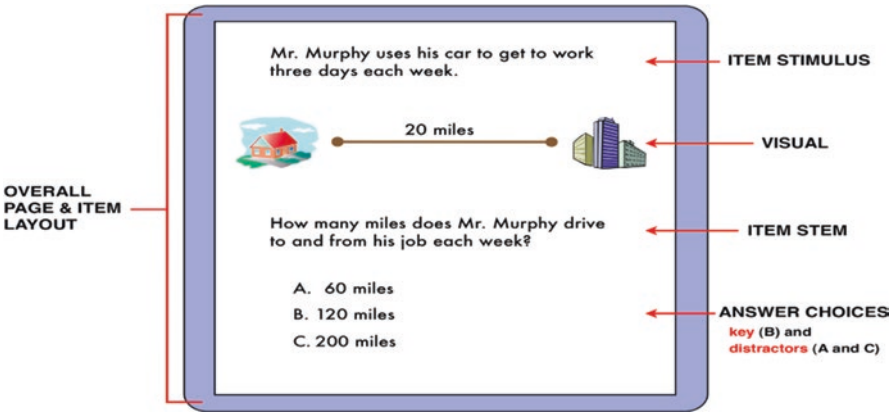

Fig. 3.2 Anatomy of a multiple-choice item

For the purposes of rating items using the ARM, the passage and stimulus are rated separately since it is common for multiple items to be connected to the same passage, with each individual item containing its own stimulus and stem. Key accessibility actions and modifications can be functionally identified for each of the five elements of an item as follows:

Passage/Item Stimulus

The length of text is an essential accessibility factor for the passage and item stimulus elements. Passages and stimuli must contain sufficient wording to communicate the message or present essential information and should be sufficiently long to provide material for a set of items. It is desirable, therefore, that passages and stimuli contain the minimal number of words, written as plainly as possible, to permit the maximum number of test-takers to respond to the item. Accessible passages should not demand additional memory or reading load apart from those required to demonstrate knowledge of the target construct. A failure to consider students' sociocultural experiences may create extra load and sometimes major difficulties in comprehending test items.

One challenge for teachers and test developers is the desire to create accessible test items that contain "real-world" application problems, taking into account students' unique experiences arisen from their class backgrounds and familial and cultural practices. Such authentic problems are thought to induce interest and engagement, yet they often are more difficult for students to access due to the ways that these passages are written or composed. For instance, many passages contain abridged versions of copyrighted publications that cannot be altered easily to reduce reading load. Likewise, mathematics and science items often require the application of conceptual knowledge to solve problems or demonstrate knowledge without

taking into account students' cultural understanding and practices. Typically, these items contain more text and a higher degree of complexity than other items, which may pose difficulties for students who do not read well. Teachers and test developers should be aware that the potential is high for application problems, such as these, to contain barriers to accessibility due to extraneous cognitive load and failure to consider students' unique experiences. When barriers exist, whether they are cognitive or sociocultural in nature, engagement suffers.

Item Stem

The item stem typically contains the question or directive for an item and should be written as directly as possible to permit test-takers to understand what is required. An unclear item stem may preclude a test-taker from demonstrating what he or she knows even if the person has learned the tested content. To facilitate the identification of the question, item stems should be distinguished through spacing from item stimuli.

Visuals

According to the cognitive theory of multimedia learning (e.g., Mayer & Moreno, 2003), visuals can be useful for communicating information in a concise manner, but they also tend to be confusing and, if designed or used improperly, may actually increase the extraneous cognitive demands of learning tasks. Using culturally relevant images is an important consideration. Ideally, any visuals should be essential for responding to the item (rather than being included for ancillary reasons such as improving test-taker interest or motivation) and convey culturally relevant messages consistent with a test item. Indeed, many items, particularly in mathematics and science domains, require visuals to present essential information and convey a culturally inclusive conception of education. From accessibility and engagement standpoints, it is critical that all visuals depict the intended image(s) as simply and clearly as possible, with no extraneous text or information, and be culturally inclusive.

Answer Choices

Factors that commonly reduce the accessibility of response options for multiple-choice items are the use of implausible, absurd, or unnecessary distractors or unbalanced options (e.g., choices such as (a) Jim, (b) Sue, (c) Reginald, (d) Mary—if option C was the correct answer, the other names should be closely matched in terms

of their length) or culturally irrelevant choices. Likewise choices in mathematics or science items should be reviewed to ensure that one option does not stand apart from the others, cognitively or socioculturally. As with the other item elements, answer choices should be minimal in length and written as simply as possible.

It is ideal that only one option is correct; indeed, if a strong rationale can be made that one of the distractors may be a correct response due to differences in perspectives or cultural understanding, then some test-takers who know the tested content may subsequently be marked incorrect for the item. This is an accessibility issue insofar as the item may actually measure the extent to which the test-taker "overthinks" the item, brings their own cultural knowledge and perspective to make their interpretation, or may test a construct referred to as "test-wiseness" or the degree to which students are able to infer what the test developer intended based on their cultural experiences and understanding, as opposed to simply responding based on content knowledge or skills. Little research exists on the use of items with more than one correct response with students with disabilities or other struggling students, but based on research on item distractors, cognitive load, and culturally inclusion education, it is expected that multiple-choice items with more than one correct response will be very difficult. To reduce this difficulty, test preparation during instruction is likely necessary.

Further, based on a meta-analysis of over 80 years of research on item development, Rodriguez (2005) concluded that three-answer choices are optimal for multiple-choice items. The author indicated that reducing items from four- or five-answer choices to three tends to result in nonsignificant or positive effects on the discriminatory power of items, nonsignificant changes in item difficulty, increased reliability of scores, and, ultimately, a positive effect on the subsequent validity of inferences from results. As applied to the development of tests with a focus on accessibility, Rodriguez's conclusion suggests best practice is to reduce the number of response options of multiple-choice items to three whenever it is feasible to do so. This suggestion also makes sense from a motivational and engagement perspective, especially for test anxious students and students who struggle taking tests.

Page/Item Layout

The layout of items on a page/screen, or—if necessary—across pages/screens, is also an important aspect of accessibility. For optimal accessibility, the entire item—including relevant passages, visuals, or stimuli—should be presented on one page/screen. To the extent the necessary information for an item is spread across multiple pages, the accessibility of the item is compromised for some test-takers. It often is difficult to ensure a passage or common stimulus with its entire item set is presented on a single page. Nevertheless, the layout of item

and passage sets should be designed with caution to reduce the need for turning the page/excessive scrolling to respond to an item. For a similar reason, visuals that are necessary for responding should be integrated with the other item elements, rather than placed off to the side.

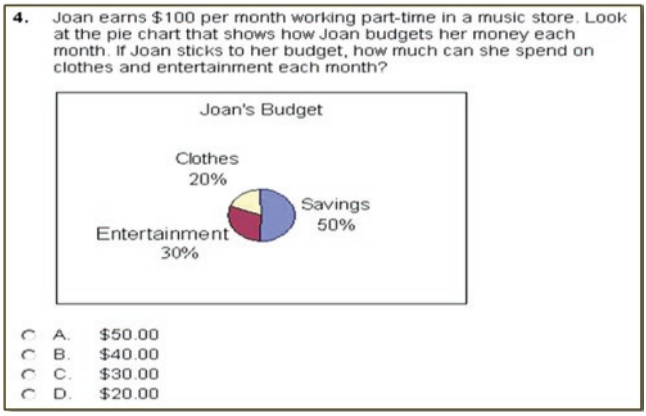

Fig. 3.3 Original fourth-grade mathematics item

Using TAMI and UDL principles to refine instructional materials and classroom tests. Learning and testing materials can be surprisingly messy, complicated by extraneous words, numbers, and visuals, which often results in ineffective performances for many students besides those with disabilities. As a summary of the key points for the item modification strategy, let's look at a real mathematics test item created by a fourth-grade teacher. As you can read in Fig. 3.3, the original mathematics item was comprised by an item stimulus of one sentence (12 words) and an item stem of one sentence (31 words), a visual, and four-item answer choices. An example modification of this same item measuring the same underlying knowledge and skill is provided as Fig. 3.4. Note that this modified item has an item stimulus of 5 words, an item stem of 15 words, a simplified black and white visual, and three-item answer choices. The layout of both items is very similar. Research with these items and many more like them has indicated that the modified items are easier to read, take less time to answer, result in students answering more items, and, perhaps most importantly, provide more accurate estimates of what students know and can do.

The lessons from research on item development using TAMI and from the UDL guidelines provide teachers many tips on how to organize, order, and simplify materials at a given grade-level whether for a test or for classroom instruction. The design of materials, whether for instruction or testing, should be done with an understanding of how students typically process information—whether as words, mathematic formulas and symbols, or visuals—and with the goal of having minimal extraneous information, except when the teaching goal is to have students differentiate between essential and extraneous information. Extraneous material is a barrier that can be overcome by teachers who are sensitive to students' information processing skills, understand the target goals to be learned or tested, and can apply research on cognitive load. Following these research-based test and classroom material development guidelines along with sensitivity to students' cultural backgrounds will facilitate access and allow students equitable opportunities to learn.

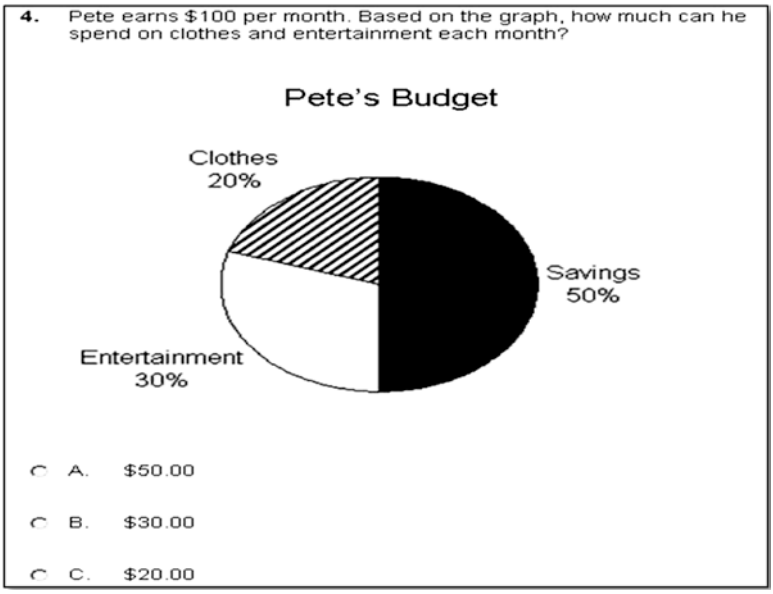

Fig. 3.4 A modified fourth-grade mathematics item with less cognitive load but unchanged construct

Testing Support and Accommodation Strategy

Access barriers in testing have been addressed primarily by the use of testing accommodations (also referred to as adjustments in some countries), which typically have been defined as changes in the administration procedures of a test to address the special needs of individual test-takers (Hollenbeck, 2002). Testing accommodations historically have been individualized and used with the aim of reducing construct-irrelevant variance due to a variety of access skill deficits exhibited by students with special needs (Elliott, Kratochwill, & Gilbertson-Schulte, 1999). We argue here whenever possible that such accommodation should also cover students' class, cultural, and geographical backgrounds. Typically, accommodations involve changes in the presentation format of a test (e.g., oral delivery, paraphrasing, Braille, sign language, encouragement, permitting the use of manipulatives), the timing or scheduling of a test (e.g., extended time, delivering the test across multiple days), the recording or response format (e.g., permitting test-takers to respond in the test booklet instead of on the answer sheet, transcription), or the assessment environment (e.g., separate room, elimination of distractions). Accommodations for most testing situations are not allowed to the content of test items; however, all major tests typically undergo a fairness review that includes consideration of students' background and cultural differences, thus minimizing the likelihood that items are bias against students from different cultures or ethnic groups.

Appropriate testing accommodations, while applied individually based on specific student needs, should not interfere with the measurement of the target construct and provide teachers with the same amount of information about the student's skill level on the construct measured on the test as results from students not receiving accommodations (Kettler & Elliott, 2010). The application of accommodations also should differentially affect test results of students for whom accommodations are intended, compared to those for whom testing accommodations are not needed. That is, when test accommodations are provided to the students who need them, their test scores will often improve, related to the scores they would attain when taking the test without accommodations; however, students without the need for this support should not exhibit higher scores when taking the test with those accommodations (i.e., the interaction hypothesis). This is an important consideration that is rarely discussed when examining achievement gaps between students from disadvantaged groups and more advantaged groups in different parts of the world.

The National Research Council in the United States commissioned Sireci, Scarpati, and Li (2005) to conduct a comprehensive review of the evidence for effects on test scores by testing accommodations with pencil and paper tests. Specifically, Sireci et al. (2005) reviewed 28 empirical studies on the effects of testing accommodations completed over nearly two decades. They found the most common accommodations were reading support (39%) and extra time (24%).

Reported effect sizes (i.e., the amount of change or difference between an accommodated mean score and an unaccommodated mean score divided by the pooled standard deviation for the means) of most testing accommodations appear small, but there is evidence they are practically meaningful. In a survey of the accommodations literature, Kettler and Elliott (2010) reported effect sizes from accommodations for students with Individualized Education Plans (IEPs) were twice as large as those for students without IEPs. Specifically, effect sizes ranged from 0.13 for students without IEPs to 0.42 students with IEPs. These results suggest, for some students, appropriate accommodations may indeed reduce barriers, facilitate engagement, and yield more accurate measures of achievement and, in many cases, higher test scores.

To facilitate teachers' efforts to use accommodations, Davies, Elliott, and Cumming (2016) developed an instrument called the Checklist of Learning and Assessment Adjustments for Students (CLAAS). The CLAAS is a user-friendly instrument based on the Assessment Accommodations Checklist (Elliott et al., 1999). The CLAAS is comprised of a list of 67 specific adjustments that represent eight categories of support. The adjustment categories and number of representative items are as follows: Motivational Adjustments for Learning and Assessment (5 items), Scheduling Adjustments for Learning and Assessment (4 items), Setting Adjustments for Learning and Assessment (10 items), Assistance with Learning and Assessment Directions (10 items), Assistance During the Assessment (12 items), Assistance Prior to Administering a Test (2 items), Equipment or Assistive Technology (18 items), and Learning and Assessment Formats (6 items). The items in each of these categories are rated according to an individual student's needs under three general conditions: classroom learning, classroom assessments, and state and

Checklist

Levels of Adjustments: No (for none), A (Support within differentiated teaching practice), B (Supplementary), C (Substantial) or D (Extensive).

Motivational Adjustments for Learning and Assessment		Adjustments for Classroom Learning					Adjustments for Classroom Assessments					Adjustments for State/National Tests				
		No	A	B	C	D	No	A	B	C	D	No	A	B	C	D
1. Provide treats, snacks, or prizes, as appropriate	Student 1	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	Student 2	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
2. Provide verbal encouragement of student's efforts	Student 1	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	Student 2	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
3. Encourage student who may be slow at starting to begin	Student 1	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	Student 2	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
4. Encourage student who may want to quit to sustain effort longer	Student 1	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	Student 2	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
5. Encourage student to remain on task	Student 1	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	Student 2	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
6. Providing scaffolding of learning or assessment activities	Student 1	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	Student 2	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Scheduling Adjustments for Learning and Assessment		Adjustments for Classroom Learning					Adjustments for Classroom Assessments					Adjustments for State/National Tests				
		No	A	B	C	D	No	A	B	C	D	No	A	B	C	D
7. Provide extra time	Student 1	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	Student 2	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
8. Allow frequent or extended rest breaks	Student 1	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	Student 2	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
9. Schedule learning or assessment over extra days	Student 1	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	Student 2	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
10. Undertake assessment at a time most beneficial to the student	Student 1	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	Student 2	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Fig. 3.5 CLAAS items and adjustments for classroom learning, classroom assessments, and testing situations (Source: Reprinted with permission of Michael D. Davies. Griffith University, Brisbane AU)

national tests. An example section of the CLAAS with items concerning Motivational Adjustments and Time Adjustments is provided as Fig. 3.5.

Although testing accommodations can be helpful for many students, there remain a number of challenges associated with actually implementing them. First, many students, in particular middle school students, are averse to testing accommodations for different reasons including the fact that the accommodations often draw attention to them (Feldman et al., 2011). Additionally, there are logistical challenges associated with their appropriate implementation including time, personnel, and cost, which often result in poor integrity. Clearly, teachers need to plan for the implementation of accommodations and work with students to make sure the accommodations are acceptable, implemented with integrity, and work as intended. With the advent of more online instruction and assessments, more students are finding accommodations acceptable and helpful because students have a larger role in selecting and refining the accommodations provided (Russell, 2018). In the context of current book, challenges to develop accommodations for students coming from various disadvantaged backgrounds include teachers' understanding of students' needs, their capabilities and training in addressing these needs in instruction and assessment, and the extent to which supports are received from other teachers, the school, and other significant stakeholders including parents and policy-makers.

Research-Driven Actions to Maximize Student

The five access strategies we have discussed in this chapter have emphasized cognitive aspects of engagement in academic tasks, although with increased cognitive involvement both behavioral emotional engagement frequently also improves. These strategies, when used consistently with students from both disadvantaged and advantaged backgrounds, reduce exclusion. In particular, intellectual and pedagogical exclusion are reduced, and overtime matters of social isolation can also be reduced given the social supporting attributes of the creation of classrooms and schools that provide students of all types real opportunities to learn.

The research in support of these strategies suggests they indeed do enable many students with disadvantages more meaningful engagement in learning and testing events, and for many of these students, this engagement results in measurable improvements in achievement and attitudes about future learning opportunities. Briefly, an actionable summary of the theory and research on access strategies and opportunity to learn is:

- Increase instructional time daily on content objectives in the intended curriculum to improve opportunities to learn important content that also is likely measured to document achievement.
- Design instructional material and activity that offers students choices in the way they access the material and respond to it.
- Design classroom tests that optimize access and maximize the likelihood that students can show what they know. Such testing is perceived to be fairer and students are more motivated to participate in testing that is fair.
- Match instructional and testing support needed to improve accommodation integrity and its effect on academic performance.
- Reduce extraneous content in instructional and classroom testing material to improve readability, decrease cognitive load, and focus on targeted knowledge and skills.

Teachers' use of this guidance will occur largely within their own classrooms and schools, and when used consistently and daily across the majority of a school year, even small changes smartly made have potential to have substantial impact on the engagement and learning outcomes for many students who otherwise would under-engage and underperform academically. Therefore, to expand access and engagement in daily instruction and on classroom tests for all students, especially those who are struggling to learn, teachers are encouraged to:

- Increase the amount of instructional time daily within which students have opportunities to learn content standards that are aligned highly with blueprints for tested knowledge and skills. In other words, maximize teaching to the standards that are the focus of grade-level instruction. To accomplish this objective, it is likely that many teachers will need innovative professional development activities that focus on the intended curriculum and provide them feedback about their efforts to increase opportunities to learn.

- Increase the use of highly accessible instructional materials and classroom tests to advance learning. To accomplish this objective, teachers will need to understand fully and translate effectively guidelines like those from UDL and test item criteria such as those emphasized in the TAMI when developing new or refining existing learning and testing materials. Although one-size-fits-all instructional materials and tests cannot be developed, all materials can be improved to better match student needs by simply reducing extraneous content. In many ways, less is more when it comes to instructional materials and test items.
- Identify students' access and support needs based on daily instructional activities, and translate them into feasible testing accommodations that match the needs and can be implemented with integrity. To accomplish this set of actions, teachers need knowledge of their students' instructional support needs and their attitudes about making use of needed support or accommodations during testing situations. Teachers also need clarity on allowable supports and accommodations for a given test and a plan to ensure specified accommodations are implemented with integrity.

Each of these theory-based and research-driven actions can be accomplished on a large scale when educators are dedicated on a daily basis to provide all students optimal access to learning and testing while also being sensitive to students' ethnic and cultural backgrounds. These actions start with teachers in their classrooms with individual students, but when done consistently and smartly, these small moves collectively can result in maximizing accessibility, engagement, and ultimately achievement for many more, if not all, students.

Chapter 4
"Opportunity to Connect": Social Skills as Engagement Agents

Social skills are essential in the development and maintenance of successful relationships with peers, parents, teachers, employers, and new acquaintances. Researchers, however, have found that for many children, social skills do more than foster interpersonal relationships; they also function as academic enablers by facilitating engagement in learning (DiPerna, Volpe, & Elliott, 2002; Wentzel, 1993). A substantial amount of research supports this claim that effective social skills play an important role in children and youth's efforts to engage effectively with others in daily activities, achieve well-being, and succeed in school. Admittedly, in some cases children, especially those who come from disadvantaged families, have serious behavioral difficulties that interfere with the production of desired social behaviors and make it challenging for educators to successfully intervene. Yet, in schools across the globe, many capable children still are not achieving these outcomes, and, in some cases, educators are unprepared to facilitate the development of key social skills essential to achieve these outcomes and to avoid social and cultural exclusion.

Educators can do much to create opportunities for children to use their skills to connect with other and to use these connections to facilitate educational inclusion and academic successes. The following vignette illustrates the connecting role that social skills can play in the social and academic development of children and youth.

Case Vignette: Using Social Skills to Successfully Convert Fractions to Decimals
Setting: Elementary classroom in a low SES suburb
Situation: Mathematics instruction and assignment to convert fractions to decimals
Persons involved: Teacher, classmates, and Samuel

C. Ng et al., *Empowering Engagement*,
https://doi.org/10.1007/978-3-319-94652-8_4

Samuel and his classmates are learning to convert fractions to decimals. Samuel isn't very good at mathematics and often avoids doing his worksheets but loves to work on anything with his best friends Luke and Dustin. These boys who come from poor families living in the low SES suburb where the school is located often get to work together on mathematics problems in Ms. William's class. Today the boys, and all their classmates, have been given a worksheet with ten problems involving the conversion of fractions to decimals. Luke and Dustin start their work immediately and rather quickly finish the assignment. Meanwhile, Samuel has gotten up to sharpen his pencil, talk to a peer near the pencil sharpener, and return to his seat only to start talking with Luke about a game they can play at lunchtime. Dustin asks Samuel if he finished his work. Samuel said he was going to do it later. Luke overhears this and tells Samuel to get focused, so he will be able to actually play at lunchtime rather than having to stay in the room to finish his math assignment. Samuel tries to do some of the fraction conversions but is confused. He turns to Luke and Dustin and says "I want to get this work done, but I don't know how. If Ms. William's allows you guys to help me, can you before lunchtime?" Both boys respond they will be glad to teach him the three steps for converting a fraction to a decimal without a calculator. Samuel raises his hand to get Ms. William's attention, which Ms. William taught Samuel to do at the beginning of the school year after noticing that Samuel was shy to ask for help. She comes to his desk. He asks her politely if he can get help with his assignment today from Luke and Dustin. She approves his request but indicates that he needs to demonstrate that he can do some of the problems alone, so he can have their help with the first three problems. Samuel smiles, thanks Ms. William, and eagerly listens as Luke and Dustin take turns demonstrating how to convert a fraction to a decimal following a three-step procedure. Ms. William observed the boys working together and was pleased with the way they helped each other out. After they demonstrate the first two problems, Samuel tries the third problem on his own, and although he struggled a little, he got it correct with a little guidance from Dustin. Samuel thanks his buddies for the help and works through the remaining seven problems on his own even though he had to work for the first 10 min of lunchtime on his own. Ms. William was pleased with the way Samuel persisted on his work and praised him for the way he asked for help from his friends. Samuel thanked Ms. William for allowing her extra time to complete the task. He sprang out of the class and was motivated to find his buddies to play and to tell them he completed his fraction conversions!

Outcomes: Engaging with others when you are learning a new task is often helpful. Also having some feedback and success with a new task can increase one's motivation to continue the working on a task, especially when completing the tasks results in positive social interactions with friends. The social skills of asking for help, listening to others, smiling, saying thank you, taking turns, and following the rules or directions were all part of Samuel's learning how to convert fractions to decimals. These social skills enabled social engagement with both Samuel's teacher and two classmates, which, in turn, lead to cognitive engagement with the mathematics task.

In this chapter, we define and examine the development of social skills known to be influential in students' lives, particularly in school. We specifically identify social skills critical for engaging in learning and describe several school-based programs designed to teach or improve a robust family of social skills known to be helpful at school, home, and in the community. A central theme is that although social skills don't make children smarter, they can help children relate to and work with others who are motivated to learn and, hence, promoting academic engagement. Many students who come from economically, linguistically, and culturally disadvantaged families may not have developed refined social skills allowing them to relate to and work with others in school (e.g., Winsler, Kim, & Richard, 2014). Teaching these students social skills facilitates their learning engagement as they learn how to collaborate with others in school. Additionally, social skills matter and are worth teaching because they can help disadvantaged learners feel less isolated and facilitate their participation in the learning process. This enthusiastic claim is particularly relevant in a large number of contemporary classrooms where learning is expected to be interactive, generative, and social. Thus, a student needs social skills to navigate this type of learning environment effectively; without such skills, learning is likely more challenging and the learning environment less supportive. In the context of engagement research, due attention has not been given to social skills, and their potentials in promoting and sustaining engagement remain undervalued. This is probably because current models of engagement have built on motivational theories and research, focusing predominantly on motivational variables such as self-efficacy and their link with engagement and achievement. It should be noted that engagement as a form of active participation in learning requires both motivation and skills, wherein the former provides the reasons for engagement and the latter offers students plans and strategies enabling engagement. Engagement is therefore both motivational and skill-based acts. Skills such as self-regulation and learning strategies are important facilitators of engagement. In this chapter, we argue that social skills can play the role of an engagement facilitator to promote active and collaborative participation in learning through social engagement with peers and other members in a learning setting. However, many students who come from poor families and other disadvantaged backgrounds have not developed these skills, and subsequently, their engagement in school deteriorated, and their achievement lagged behind.

Social Skills Defined

Numerous definitions of social skills exist, but virtually everybody agrees social skills are a set of competencies that (a) facilitate the initiation and maintenance of positive social relationships, (b) contribute to peer acceptance and friendship development, (c) facilitate school adjustment, and (d) allow for individuals to cope with and adapt to the demands of their social environments (Gresham & Elliott, 1984, 1990, 2008). Thus, for our purposes, social skills are defined as *socially acceptable learned behaviors that enable an individual to interact effectively with others and to*

avoid or escape unacceptable behaviors that result in negative social interactions with others (Gresham & Elliott, 1984, 1990, 2008).

Based on reviews of the social skills intervention literature and factor analytic research for purposes of measuring social skills, Gresham and Elliott (1990, 2008) characterized social skills as a multidimensional construct comprised of skills that function to facilitate communication, cooperation, assertion, responsibility, engagement, empathy, and self-control behaviors. Regardless of social skills category or response class, each skill typically has two key dimensions. First, social skills consist of both verbal (e.g., saying something nice to another person) and nonverbal (e.g., smiling or gesturing positively to another person) behaviors. Second, behaviors considered to be appropriate for one situation might not be appropriate for another. That is, appropriate social skills are often situationally specific. For instance, cooperation may be actively encouraged when working on a group project, but not during an end-of-year achievement test. Collectively, these two dimensions stress the interactive, context-specific nature of social skills. As such, the school environment is an instructionally rich place to teach these behaviors, in particular those skills valued by educators and known to facilitate engagement and collaboration.

Key Social and Academic Engagement Skills

Based on the research of Gresham and Elliott (2008) and DiPerna and Elliott (2000), 15 social skills have been identified to facilitate social and/or academic engagement, and in turn academic achievement, for all types of children ages 3–18, including those who come from disadvantaged backgrounds or those who have experienced school exclusion. These social engagement skills have been used to characterize skills of thousands of children and are described as follows:

- Makes friends easily
- Interacts well with other children
- Joins activities that have already started
- Invites others to join activities
- Participates in games or group activities
- Starts conversations with peers
- Introduces self to others
- Speaks in class when called upon
- Asks questions about tests or projects
- Participates in class discussions
- Volunteers answers to questions
- Assumes leadership in group situations
- Volunteers to read aloud
- Initiates conversations
- Asks questions when confused

As illustrated by these 15 social skills, there can be a significant social component to engage effectively in academic tasks where communication with other people in a range of situations is required. These social skills all seem like easy things to do, but for children who have histories of social and academic difficulties, who are from different cultures and socioeconomic backgrounds, or who have disabilities that affect communication skills, enacting many of these social engagement behaviors can be a challenge (Conduct Disorder Prevention Group, 1999, 2002; Parker & Asher, 1987; Walker & Severson, 2002). In addition, learning to recognize and act upon engagement opportunities also requires a number of related social skills such as self-control, assertion, and empathy. Once engaged socially or academically, one also needs a number of social skills—cooperation, responsibility, and self-control—to maintain the engagement activity successfully.

Based on research with thousands of students and their teachers and parents, Gresham and Elliott (1990, 2008) in the development of the Social Skills Improvement System identified ten specific social skills necessary for successful engagement and maintenance of ongoing interactions with others. These social skills are comprised by two communication skills (i.e., listens to others, takes turns in conversations), three cooperation skills (i.e., follows rules, complies with directives, cooperates with peers), two self-control skills (i.e., ignores peer distractions, controls temper in conflict situations), an assertion skill (i.e., asks for help), a responsibility skill (i.e., acts responsibly when with others), and an empathy skill (i.e., is kind to others).

So, in reality, the act of skillfully engaging with others in constructive and appropriate ways actually can be quite challenging given it requires a set of approximately 25 specific social skills and knowledge about many social situations. These skills also cannot be enacted mechanically. They, in fact, require a nuanced application given personal, cultural, and situational variations across situations. Engaging with a younger person may require some adjustments in how you talk, where you position yourself, and what you actually say. Engaging with a classmate who is of the opposite sex, somewhat shy but really smart, may also require adjustments in communication skills, assertion skills, and perhaps empathy skills to facilitate and maintain engagement to complete a school task together. Finally, engaging during a team game with same sex, older students who periodically have teased you about your looks will likely test communication, cooperation, and self-control skills to ensure meaningful engagement with the team members in the game.

Many children from disadvantaged backgrounds find it challenging to use these social skills. It is not just that they may not have sufficient training and preparation at home. More importantly, appropriate use of social skills requires familiarity of various social contexts and settings that they are unlikely to have come across often at home and in their communities. The challenge is twofold – to promote the acquisition of social skills and to develop abilities to use them appropriately. In a later section ("Effective Strategies for Teaching Social Skills Known to Influence Engagement"), we discuss how these aspects can be handled effectively in a specific social skills intervention developed by Elliott and Gresham (2007).

In summary, the act of a student connecting with or engaging others to accomplish a common or related task requires a substantial number of social skills. These social skills function to first connect people (i.e., social engagement), which in many cases is a prerequisite for attending to (i.e., cognitive engagement) and actively working on and completing a task (i.e., behavioral engagement). Most students initially learn these skills from good models like parents, older siblings, and extended family members. To be highly proficient with these skills, however, requires practice over time and in numerous situations under varying consequences. The classrooms, hallways, sports fields, and other extracurricular activities that occur at schools offer many opportunities for every student to develop social skills and to connect with others. Teachers clearly have a major role in fostering this development, especially in helping disadvantaged students who may need extra support in developing relevant social skills and in using them appropriately given research evidence indicating their likely insufficiency in these aspects (e.g., Whitted, 2011). In the next two sections of this chapter, we examine research on the efficacy of social skills interventions and follow it with an examination of specific programs for fostering students' development of key social skills that enable effective engagement and positive social and academic outcomes.

Social Skills Strengths and Weaknesses

Social skills, just like reading or math skills, develop through stages from being nonexistent through emerging, proficient, and finally accomplished. At any given point in a child's development, some of his/her social skills will be relatively strong, while others will be relatively weak or infrequently used. Gresham (1981a) identified the distinction between social skill *acquisition deficits* and social skill *performance deficits* as an important conceptual feature of social skill weaknesses that has direct implications for the design and delivery of social skills intervention programs (and for promoting different types of engagement, in particular, behavioral and emotional engagement).

Acquisition deficits result from the absence of knowledge about how to perform a given social skill, an inability to enact fluently a sequence of social behaviors, or a difficulty in knowing which social skill is appropriate in specific situations (Gresham, 1981, 2002). According to this conceptualization, acquisition deficits can result from deficits in social–cognitive abilities, difficulties in integrating fluent response patterns, or deficits in appropriate discrimination of social situations (and therefore this form of deficit will stifle engagement in social and academic settings). Acquisition deficits are characterized as "can't do" problems because the child cannot perform a given social skill even under optimal conditions of motivation.

Performance deficits are conceptualized as the failure to perform a given social skill at acceptable levels, even though the child knows how to perform the social skill (Gresham, 1981). That is, performance deficits refer to skills a child has in his

or her repertoire, but does not consistently or productively perform. Performance deficits are due to motivational or performance difficulties rather than challenges in learning the skill. The distinction between acquisition and performance deficits is important because different intervention approaches in remediating social skill deficits are required for students coming from different backgrounds. In the context of promoting learning engagement, these two forms of deficits will require educators to consider a range of strategies from individualized, direct instruction with repeated trials and feedback for acquisition deficits to small group opportunities with incentives for effort and correct responses for performance deficits.

Important Social Skills and Educational Outcomes: What Teachers and Parents Value

A number of researchers have investigated what social skills teachers classify as socially important for academic success. At the elementary and secondary levels, social skills critical for students' classroom success include following directions, paying attention to instructions, controlling temper with both adults and peers, and managing conflict (Hersh & Walker, 1983; Kerr & Zigmond, 1986; Lane, Givner, & Pierson, 2004; Lane, Pierson, & Givner, 2003, 2004). At the preschool level, teachers have identified the following as social skills necessary for successful classroom experiences: (a) following directions and classroom rules, (b) controlling temper in conflict situations with adults and peers, and (c) interacting well with other children (Frey & Elliott, 2011; Lane, Stanton-Chapman, Jamison, & Phillips, 2007).

The social skills parents value highly also have been examined. For example, using the Social Skills Rating System (SSRS; Gresham & Elliott, 1990) to examine parents' and teachers' importance ratings of preschoolers' prosocial behaviors, Elliott, Barnard, and Gresham (1989) found that parents and teachers rated almost all social skills items as either *critical* or *important* and that both parents and teachers rated cooperative behaviors as having the highest importance, followed by self-control and social initiation. Lane et al. (2007) also used the SSRS and found no significant differences between parent and teacher importance ratings of cooperation skills but found significant differences between parent and teacher importance ratings for assertion and self-control skills (parents gave higher importance ratings for assertion and self-control skills than teachers).

In an investigation of parent and teacher social behavior importance ratings for preschoolers using the Social Skills Improvement System–Rating Scales (SSIS-RS; Gresham & Elliott, 2008), Frey and Elliott (2011) found both parents and teachers rated the following six items as critical for preschoolers' academic success and development: (a) follows your directions, (b) is well behaved when unsupervised, (c) interacts well with other children, (d) takes responsibility for her or his own actions, (e) pays attention to your instructions, and (f) follows classroom or household rules. Overall, both parents and teachers rated cooperation and responsibility

as the two most important domains. Parents also rated communication skills as essential, and teachers rated self-control skills as necessary for success in their classrooms. Surprisingly, for parents, the domain with the lowest importance ratings was engagement, and, for teachers, the domain with the lowest importance ratings was empathy. Differences in parents' and teachers' importance ratings of social skills appear to be attributed to the context and settings in which they interact with children.

Peer influence is another important consideration in social skills development. Researchers have documented that some of the most socially important outcomes for children and youth include peer acceptance (Newcomb, Bukowski, & Pattee, 1993; Parker & Asher, 1987); academic achievement and school adjustment (DiPerna et al., 2002); and teacher and parent acceptance (Gresham, 2002; Gresham & Elliott, 1990). It is well established that children who are poorly accepted or rejected by peers, who have few friendships, and who adjust poorly to schooling are at much greater risk for lifelong maladaptive outcomes. Parker and Asher (1987) in their seminal review of research showed that children having difficulties in peer relationships often demonstrate a behavior pattern that can be described as antisocial and/or aggressive and can be characterized by repeated school norm violations. This behavior pattern is characteristic of many children with or at risk for serious behavior disorders (SBD). In the absence of effective interventions, this behavior pattern is likely to continue and can develop into more resistant forms of maladaptive behavior (Patterson, DeBaryshe, & Ramsey, 1989; Walker, Ramsay, & Gresham, 2004).

Researchers also have documented meaningful and predictive relationships between children's social skills and their long-term academic achievement (DiPerna et al., 2002; DiPerna & Elliott, 2002; Malecki & Elliott, 2002; Wentzel, 1993). The concept of academic enablers evolved from the work of researchers who explored the relationship between students' nonacademic behaviors (e.g., social skills and motivation) and their academic achievement (Gresham & Elliott, 1990; Wentzel, 1993). In a major longitudinal study, Caprara and colleagues found that social skills of third graders, as assessed by teachers, were better predictors of eighth-grade academic achievement than achievement test results in third grade (Caprara, Barbaranelli, Pastorelli, Bandura, & Zimbardo, 2000). Even stronger findings were reported by Malecki and Elliott (2002), who showed that social skills correlated approximately 0.70 with end-of-year academic achievement as measured by high-stake tests. Finally, DiPerna et al.'s (2002) findings as summarized in Fig. 4.1 indicated that interpersonal skills (i.e., social skills) play a significant role in predicting the achievement of elementary students in mathematics and language arts. Thus, it appears that interpersonal relationships via social skills are vitally important academic enablers for children in schools. As noted in the illustrated structure model, interpersonal skills work through motivation to influence both engagement and study skills that are proximal influences directly on academic achievement.

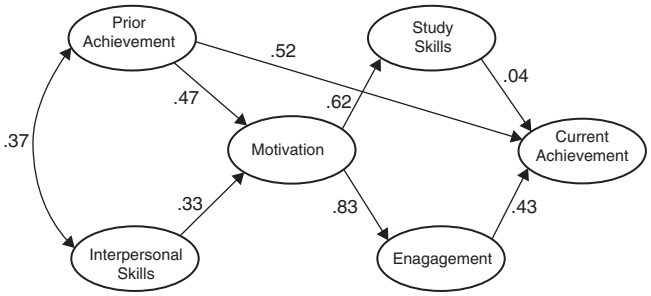

Fig. 4.1 Structure model indicating the role of interpersonal (social) skills in predicting achievement

Social Skills and Students from Disadvantaged Backgrounds

A majority of research on social skills, as reviewed in the previous section, was conducted using mainstream student samples. Less research attention has been devoted to children who come from low SES families, culturally disadvantaged backgrounds, or at-risk categories. This is concerning given the increased student diversity in our schools. Not only do these disadvantaged students have lower levels of achievement, they also experience many issues in relation to social relationship and adjustment in and out of school. In terms of social skills development, the National Center for Poverty (2011) found that African-American boys had significantly lower scores in socio-emotional development. A good deal of research has shown that disadvantaged students compared to their advantaged counterparts are deficient in their development of social skills critical for schooling. Having deficiencies in social skills development means that disadvantaged children are less capable of building relationships and rapport with peers and others, of managing their emotions, and of displaying self-control. Translated to consideration of their likely engagement in the school context, a lack of social skills means that disadvantaged students are less likely to be successful in school (Whitted, 2011). In a negative sense, these students often have conduct problems and experience peer rejection and suspension from school.

In the context of school readiness, researchers who are primarily concerned with social emotional learning of disadvantaged students have focused on interactive peer-play skills. These are skills that build from prosocial that enable social engagement with peers and that facilitate positive interactions such as problem-solving and helping each other during play (Fantuzzo, Coolahan, Mendez, McDermott, & Sutton-Smith, 1998). Studies showed that disadvantaged students from low-income, Hispanic families who displayed positive interactive play behaviors were more actively engaged in classroom activities (Coolahan, Fantuzzo, Mendez, & McDermott, 2000). Teachers rated these students as more engaged. In contrast, Hispanic students who were low in these social skills displayed more disruptive behaviors. It was found also that teachers and peers found such students more

likable (Fantuzzo et al., 1998). Subsequent research focusing on children from similarly disadvantaged backgrounds has produced empirical evidence attesting to the positive relationship between peer interactive behaviors and literacy learning, while negative relationships were found when children failed to display positive peer interactions (Bulotsky-Shearer, Bell, Romero, & Carter, 2012; Cohen & Mendez, 2009; Fantuzzo, Sekino, & Cohen, 2004; Mendez & Fogle, 2002). More recently, Winsler et al. (2014) argued that social skills are important additional resources for bilingual children to learn English. Using prospective research design, their study found that low-income Hispanic children who had strong social skills related to taking initiative, self-control, and attachment and fewer behavior problems at 4 were more proficient in English by the end of kindergarten compared to those who were initially weaker in these skills. In short, there is growing base of evidence indicating that social skills play a significant role to enable disadvantaged students to engage socially with their peers and support their learning engagement in the school. Teaching social skills to these students can be an important step to promote and sustain their engagement in school.

While research has focused on social skills development at initial schooling stage, much attention is required to the other end of schooling where marginalized students prematurely drop out of mainstream school and seek their second chance education in alternative programs. Many of these students are vulnerable to social and emotional risks derived from poverty, family relational issues, physical and emotional trauma, and crime and drug use in their neighborhoods (McGregor & Mills, 2012). Caring and supportive learning environments that feature social and emotional learning and community engagement often characterize alternative schools wherein these students find second chance education. Social workers, youth workers, and teachers work together with these students to ensure that the students are given a second chance to thrive and be educated in a place where they feel safe and are comfortable of reconnecting with others in meaningful learning engagements (Baroutsis, McGregor, & Mills, 2016; Evans, 2017; Foley & Pang, 2006). Social skills, especially skills focusing on interpersonal relationship, are often taught as part of the alternative education curriculum. In addition, opportunities for applying these important social skills are provided in both formal and informal settings. Detailed discussion is provided in Chaps. 7 and 8 of successful practices in alternative education wherein social skills form part of the design.

Developmental Base Rates for Social Skills

When children don't exhibit a valued social skill, it is reasonable to be concerned. Developmentally, however, not all social skills emerge at the same time. Therefore, to know how unusual or typical a phenomenon is, it is important to understand its development base rate that is normal in the population. Gresham, Elliott, and Kettler (2010) conducted a study to establish empirically the base rates of social skills and problem behaviors. Specifically, in this study the investigators determined the base

rates of social skills acquisition and performance deficits, social skills strengths, and problem behaviors using a nationally representative sample of children and adolescents aged 3–18 years. Base rates were computed using the national standardization sample ($N = 4550$ children) of the Social Skills Improvement System–Rating Scale (Gresham & Elliott, 2008) across three informants (teacher, parent, and student) and across three broad age groupings (3–5, 6–12, and 13–18 years). As documented in the Gresham et al. (2010) article, results showed that the base rates for social skills acquisition deficits and problem behaviors are extremely low in the general population. Base rates for social skills performance deficits and social skills strengths were considerably higher with students in the 6- to 12-year-old age group reporting fewer performance deficits and social skills strengths than older children (13–18 years) as well as teachers and parents across all three age groups.

As suggested by this base rates research, social skills performance deficits, rather than social skills acquisition deficits, are the form of difficulty likely to confront interventionists. Assuming such deficits can be reliability identified, an array of evidence-based intervention methods exists for effectively improving performance of the desired social skill and thus reducing or eliminating the deficit. Let's now examine intervention strategies for improving social skills.

Efficacy of Social Skills Interventions

Researchers conducting meta-analytic reviews of social skills interventions indicate that they are effective for children with, or at risk for, a wide range of behavior and social emotional difficulties. However, none of these reviews examined engagement skills specifically. Rather they examined many of the behaviors needed to initiate and maintain interpersonal relationships. Nevertheless, these are important behaviors as noted earlier for people's successful enactment of skills needed to engage successfully with others or in academic activities.

To date, there have been six high-quality meta-analyses of the social skills training literature conducted (Ang & Hughes, 2001; Beelmann, Pfingsten, & Losel, 1994; Cook et al., 2008; Losel & Beelman, 2003; Schneider, 1992; Schneider & Byrne, 1985). All of these meta-analyses focused on children and youth with behavioral difficulties, involved approximately 338 studies, and included over 25,000 children between the ages of 3 and 18 years of age. Results of the meta-analyses showed a consistency in how the construct of social skills has been defined for research synthesis purposes. They also suggest that the social skills construct can be divided into three major categories: social interaction (communication skills, assertion skills, engagement skills, and self-control skills), prosocial behavior (empathy and cooperation skills), and social–cognitive (responsible decision making) skills. Correlates of social skills fall into two categories: problem behavior (externalizing and internalizing) and academic achievement or performance. As an advance organizer for the results of these studies, the evidence suggests that almost two thirds of children receiving social skills interventions will improve their social skills compared to only one third of children in control groups.

All six of the meta-analyses used group experimental designs, which showed a grand mean effect size of $r = 0.29$ (range = 0.19–0.40), suggesting that overall, approximately 65% of the participants in the social skills training groups improved compared to 35% of those in the control groups based on the binomial effect size display (Rosenthal & Rosnow, 1991). Using Cohen's (1988) conventional standards, an effect size of this magnitude would be considered moderate. The six meta-analyses show that social skills training produced practically significant changes in social skills based on percentages of participants in treatment groups that showed improvement.

In summary, meta-analytic reviews of social skills intervention studies suggest that these interventions are generally effective for children with serious behavioral and emotional difficulties or at risk of them. Also, all of the studies in these reviews are delivered for a small group or individual students. No studies in the above reviews could be considered to have examined classwide interventions. Let's now examine some classwide or universal classroom programs.

Universal Classroom Programs to Improve Social Skills

Educators in many countries across the globe have begun to embrace the concept of multiple, coordinated levels of support services (e.g., universal, selected, and targeted) to promote students' social emotional and academic success. As a result, a number of universal (classwide or schoolwide) programs have begun to emerge with the primary goal of promoting positive social emotional functioning in school settings. Although many of these programs have a strong theoretical evidence base or include strategies and tactics based on empirical evidence, a relatively small number of them have been tested empirically. As reviewed by Elliott, Frey, and DiPerna (2012) and documented in Table 4.1, four of the most frequently used universal programs include the Good Behavior Game (GBG; Barrish, Saunders, & Wolf, 1969); the Promoting Alternative Thinking Strategies (PATHS; Kusché & Greenberg, 1994); the Incredible Years (IY; Webster-Stratton & Hancock, 1998); and the SSIS Classwide Intervention Program (Elliott & Gresham, 2007).

The universal strategy with the longest history and most robust evidence base is the *Good Behavior Game* (GBG; Barrish et al., 1969). The primary goals of the GBG are to reduce disruptive and aggressive behaviors while promoting positive social engagement in the classroom. The *Promoting Alternative Thinking Strategies* (PATHS; Kusché & Greenberg, 1994) curriculum is intended to foster the development of young children's self-control, emotional awareness, and interpersonal problem-solving skills. Results of several studies have indicated that children who complete PATHS demonstrate improvements in their understanding of social problems and ability to identify alternative solutions to such problems (e.g., Greenberg, Kusché, Cook, & Quamma, 1995). In addition, PATHS has been associated with reductions in problem behavior. The *Incredible Years* series (Webster-Stratton, 1984)

Table 4.1 Comparison of universal classroom behavior programs to improve social behavior

Program	Primary Goal	Target skills/behaviors	Target grades	Guiding theory	Format/method	Evidence base
Good behavior game (Barrish et al., 1969)	Reduce classroom disruption, aggression, and shyness	• Talking or verbal disruption • Aggression and physical disruption • Out-of-seat behavior Noncompliance	1–6	Behavior modification	Interdependent group contingency teams; review of conduct rules followed by brief (10–20 min) daily probes	Effective results on aggressive, disruptive behavior, and youth violence in over ten studies across grades 3–5; endorsed by AFT and surgeon general *Behavior effect sizes:* 0.18–0.71
Incredible years: child training program (Webster-Stratton & Hancock, 1998)	Reduce conduct problems; promote social, emotional, and academic competence	• Peer aggression and disruption • Social skills and cooperation • Understanding of feelings • Conflict management skills • Academic engagement	Pre-K–3	Social learning (Patterson, 1982)	Classroom-wide curriculum; two to three times weekly in 20- to 30-min circle discussions	Four randomized studies in grades K–2; improved social skills, positive conflict management, and playground aggression with peers *Behavior effect sizes:* −0.14 to 1.0
PATHS curriculum (Kusché & Greenberg, 1994)	Facilitate self-control, emotional awareness, and interpersonal problem-solving skills	• Improvement of self-control • Conflict resolution strategies • Aggressive responses • Problem-solving skills	K–6	Affective–behavior–cognitive–dynamic (ABCD) model (Greenberg & Kusché, 1993)	Daily class curriculum; 20 to 40-min lessons for approximately 22 weeks	Three randomized controlled clinical trials across grades 1–6; improved understanding of social problems, alternative solutions, and violence reduction *Behavior effect size:* 0.4

(continued)

Table 4.1 (continued)

Program	Primary Goal	Target skills/behaviors	Target grades	Guiding theory	Format/method	Evidence base
SSIS-CIP (Elliott & Gresham, 2007)	Learn and apply social skills, enable academic achievement, and enhance interpersonal relationships	• Communication • Cooperation • Assertion • Responsibility • Empathy • Self-control	Pre-K–8	Behavioral and social learning	Ten sequenced units on social skills, with each unit consisting of three 25- to 30-min weekly lessons organized into a six-phase instructional approach	Efficacy study (randomized controlled trial) currently being completed

Note. Incredible Years includes the Dina Dinosaur Social Skills and Problem-Solving Curriculum. *PATHS* promoting alternative thinking strategies, *SSIS-CIP* social skills improvement system–classwide intervention program; *AFT* American Federation of Teachers; *WWC* what works clearinghouse
Reprinted with permission. Source: Elliott et al. (2012). Improving social skills: Enabling academic and interpersonal successes. (pp. 55-78) In S. Brock & S. Jimerson (Eds.), *Best Practices in Crisis Prevention and Intervention in Schools,* Washington, DC: NASP

comprises three complementary training programs (parent, teacher, and child). The primary goal for each of these programs is to reduce childhood conduct problems while promoting social, emotional, and academic competence. Evidence of effectiveness based on randomized controlled trials has indicated that the Incredible Years Child Training curriculum improves cognitive problem-solving and management of social conflict while reducing conduct problems and aggressive behavior. Finally, the newest program is the *SSIS Classwide Intervention Program* (Elliott & Gresham, 2007). This intervention program focuses on the consensus of the ten most important social skills according to teachers and parents and uses a structured method for directly teaching these skills.

Evidence from several recent large-scale studies indicated it is an effective program for improving both social skills and academic achievement in young students (e.g., Davies, Cooper, Kettler, & Elliott, 2014; DiPerna, Lei, Bellinger, & Cheng, 2015, 2016; DiPerna, Lei, Cheng, Hart, & Bellinger, 2017).

Effective Strategies for Teaching Social Skills Known to Influence Engagement

Teaching social skills to children involves many of the same fundamental methods used to teach academic concepts. That is, effective teachers model correct behavior, elicit an imitative response, provide corrective feedback and reinforcement, and arrange opportunities to practice the new skills.

Based on the intervention research literature and several existing social emotional learning programs just reviewed, Elliott and Gresham (2007) identified six effective and research-proven components or instructional phases of effective social skills improvement programs, which have been extensively tested using average students drawn from mainstream schools. Though disadvantaged students have not been included in most of the previous studies, we are confident that these research-proven components can be applied also to disadvantaged students and help them improve their social skills. Our ongoing work in a primary school, situated in a low SES suburb in regional Queensland, Australia, has verified the effectiveness of these instructional components when applying to students from poor families who had experienced difficulties in learning (Davies et al., 2014).

These research-proven instructional components include tell, show, do, practice, monitor progress, and generalize. Briefly, in the *tell* phase, the teacher or interventionist (a) provides a learning objective for a social skill they are teaching, (b) introduces the skill through questions, (c) defines a specific skill and stresses keywords that further the understanding of the skill, (d) discusses why the skill is important, and (e) specifies steps for doing the behavior. In the *show* phase, the teacher or interventionist (a) models the behavior, using both a positive and negative behavior model; (b) discretely models each of the major steps for enacting the featured social skill; (c) with a student helper, directs a role-play of a typical situation; and (d) leads

a discussion of alternative behaviors to accomplish the social behavior objective. In the *do* phase, the teacher or interventionist (a) asks students to define the skill, (b) asks students to state the steps required to accomplish the skill, (c) asks students about the importance of using the skill, (d) repeats critical steps for enacting the behavior, (e) asks students to model the skill in role-plays, and (f) asks other students to provide feedback for the students using the skill in the role-plays. In the *practice* phase, the teacher or interventionist has students complete activities in which they can practice the skill with a classmate. The teacher's role is to prompt the use of the desired social skill at the beginning of several class sessions daily and then to observe naturally and reinforce publicly students who are exhibiting the desired social skill. In the *monitor progress* phase, the teacher or interventionist asks students to (a) think about how well they are doing with the social skill and (b) complete a self-evaluation of their skill performance. Finally, in the *generalize* phase, teachers or interventionists ask students to use the skill outside of the classroom with the support of a parent or sibling. Specifically, some interventionists (a) give homework assignments to use a skill in other settings or with other students, (b) have students share information with a parent or older sibling about the social skill on which they are working, or (c) have students complete the practice activities with other students outside the classroom.

Effective teachers or other school personnel generally have targeted children's social skill performance deficits. Performance deficits, as previously defined, are due primarily to motivational variables rather than a lack of knowledge or learning concerning how to enact a given social skill. Many of the students with the most significant problems, however, will have both social skill deficits and competing problem behaviors that need attention. Maag (2005) suggested that one way to decrease competing problem behaviors is to teach positive replacement behaviors, or what he called replacement behavior training (RBT). The goal of RBT is to identify a prosocial behavior that serves the same function as the competing or inappropriate problem behavior. Thus, RBT depends on identifying functionally equivalent behaviors (Horner & Billingsley, 1988). For example, a child engages in disruptive behavior in a classroom, and a functional behavioral assessment suggests that the behavior is being maintained by social attention from peers and the teacher. An RBT approach would identify a prosocial behavior alternative, such as engaging in and completing work and paying attention to the teacher, that would result in peer and teacher attention. RBT depends largely on principles derived from the matching law (Herrnstein, 1961), in which the rates of reinforcement for prosocial behavior are increased and rates of reinforcement for competing problem behaviors are decreased, thereby encouraging children to choose appropriate behaviors over inappropriate behaviors. Elliott and Gresham (1991) have recommended similar strategies based on differential reinforcement techniques to decrease occurrences of competing problem behaviors and to increase occurrences of prosocial behaviors.

Collectively, this work led Elliott and Gresham (2007) to the design and validation of the SSIS–Classwide Intervention Program (CIP). The primary goal of this program, as overviewed in Table 4.1, is to improve children's social skills and

Table 4.2 SSIS-CIP materials and activities

	Teacher	Students	Parents
Materials	Performance screening guides Lesson plans Video vignettes Digital lessons Intervention integrity checklists	Student booklets Self-monitoring chart	CIP overview letter Notes to parents (preschool and early elementary levels)
Activities	Analysis of screening data Implementation of six-phase instructional sequence	Participation in classroom activities; completion of homework; self-monitoring of performance	None required

reduce behaviors that interfere with learning. The goal of the SSIS-CIP is to prevent the most common behavior problems that interfere with learning by helping students acquire the top ten social skills that a nationally representative sample of teachers and parents identified as most critical to classroom success. The program provides teachers with a structured, yet flexible and efficient, way to integrate opportunities to teach these social skills. The SSIS-CIP, which was developed for use by general education teachers in mainstream classrooms, blends instructional best practices and proven intervention methods to teach social skills.

Program content and developmental levels. The ten skill units of the SSIS-CIP are (a) listening to others, (b) following directions, (c) following classroom rules, (d) ignoring peer distractions, (e) asking for help, (f) taking turns in conversations, (g) cooperating with others, (h) controlling one's temper in conflict situations, (i) acting responsibly with others, and (j) showing kindness to others.

Three versions of the SSIS-CIP accommodate different developmental levels: preschool and kindergarten, lower-elementary, and upper-elementary and middle school. The content of the SSIS-CIP units at each level focuses on helping students acquire and apply the same ten social skills; however, the content of the program at each level has been customized to accommodate (a) developmental differences in the amount of required reading, (b) the age of social models used in video vignettes, and (c) the nature of interactions students is expected to engage in when applying their social skills. Otherwise, the implementation of the CIP curriculum by classroom teachers across grade levels is structurally similar.

The SSIS-CIP skill units are supported with student booklets, video vignettes, and several other resources to foster student and parent involvement. As illustrated in Table 4.2, the CIP involves a number of communication, assessment, and instructional tools designed to influence interactions among teachers, students, and parents. Detailed descriptions and uses of the CIP core instructional materials and supporting resources are provided in the SSIS teacher's guide (Elliott & Gresham, 2007).

Fig. 4.2 An example SSIS SEL lesson using PowerPoints to facilitate students' involvement

Program Implementation and Instructional Sequence

Each of the 10 SSIS-CIP skill units is taught across three 20- to 25-min lessons per week for about 10 weeks (a total of 30 lessons). Conceptually, each lesson follows the six-phase instructional model presented earlier: tell (coaching), show (modeling), do (role-plays), practice (behavioral rehearsal), monitor progress (feedback), and generalize (application in multiple settings). An additional 2 weeks of review are built into the program. The teacher's guide instructs teachers to review their classwide progress-monitoring data and to identify priority skills that need to be retaught. Thus, the entire program lasts 12 weeks. The SSIS teacher's guide provides detailed plans for each lesson, including instructional objectives, suggested instructional scripts (detailed use of video vignettes and integration of student activity books), and take-home activities for students.

With the publication of the social emotional learning (SEL) edition of the SSIS, lessons for the ten core SEL skills have all been digitized as PowerPoints with the express purpose to increase student engagement and to "free the teacher up" to move about his/her classroom to more actively engage with students during social emotional skills instruction. An example of the slides used to teach students the first lesson for the core skill of listen to others is illustrated in Fig. 4.2.

As illustrated, these slides are designed to grab students' attention and to systematically work through the six-phase instructional process of *Tell* → *Show* → *Do* → *Practice* → *Monitoring Progress* → *Generalization*. This starts first with a common social situation that involves listening to others and then through questions about the use of this skill and direct teaching of the steps for exhibiting the skill. This is followed by a series of opportunities to use and practice the skill, followed by self-evaluation of how well you used the skill, and, finally, an examination of places outside of school where the skill is useful in facilitating your social engagement with others.

Evaluation of the Effectiveness of the SSIS-CIP

The SSIS-CIP (Elliott & Gresham, 2007) was evaluated in a United States Department of Education, Institute of Educational Sciences (IES)-sponsored project directed by Gresham (2008–2010). During the first year of the project, 450 students in 22 elementary classrooms were included in the CIP intervention over a period of approximately 12 weeks. After implementing the CIP, teachers rated students in their classrooms using the Performance Screening Guide (PSG), a criterion-referenced measure in which students' prosocial behavior is rated on a 5-point Likert scale (1 = Very limited to 5 = Excellent). After the CIP intervention, approximately 13% of the students had not responded adequately to the program (as measured by PSG ratings). Teachers then used the SSIS-RS (Gresham & Elliott, 2008), a norm-referenced measure of social skills functioning, to rate the social skills and problem behaviors of students who received PSG ratings of 1 (Very limited) or 2 (Limited) after the CIP implementation. Students rated as having social skills of 1 standard deviation below the mean (<16th percentile or a standard score of <85) on the SSIS-RS were targeted as potential candidates for additional intervention. These students were identified as having primarily social skill acquisition deficits, and they participated in the additional program over a period of approximately 20 weeks. Data from the SSIS-RS (pretest/posttest), biweekly direct classroom observations of academic engaged time, school absences, weekly conduct grades, office discipline referrals, and daily behavior reports (DBRs, rated on a 9-point Likert scale) were used to examine changes in students' social skills and problem behaviors before, during, and after the intervention guide program. Students demonstrated substantial improvements across all outcome measures. Teachers' ratings using the SSIS-RS showed that students had a mean pretest score of 67 (second percentile) and a mean posttest score of 83 (thirteenth percentile) or a change of 12 percentile ranks. Systematic direct observations of academic engaged time showed a change of 12.2%, with a mean pretest score of 69.5% and a mean posttest score of 81.8%. Scores on teacher-rated DBRs increased, with a mean pretest score of 4.30 and a mean posttest score of 6.15 (a change of 1.85), and mean weekly conduct grades improved from a pretest of 62% to a mean posttest score of 70% (8% point change). In summary, the CIP showed promise for improving students' social behaviors, as evidenced by observed changes in social skills and problem behaviors on a variety of outcome measures.

In another project funded by the United States Department of Education, DiPerna et al. (2015, 2017) conducted a cluster randomized control trial (RCT) of the SSIS-CIP (Early Elementary version) to evaluate its efficacy with students in primary classrooms. Specifically, this project tested the efficacy of the CIP across two school districts—one urban and the other rural—and seven elementary schools. Across these schools, multiple cohorts of students (N = 1098) and classrooms (N = 96) participated. The student sample was drawn from first and second grade classrooms and representative of the US student population. The participating classrooms were assigned randomly to treatment (CIP) or business-as-usual control conditions.

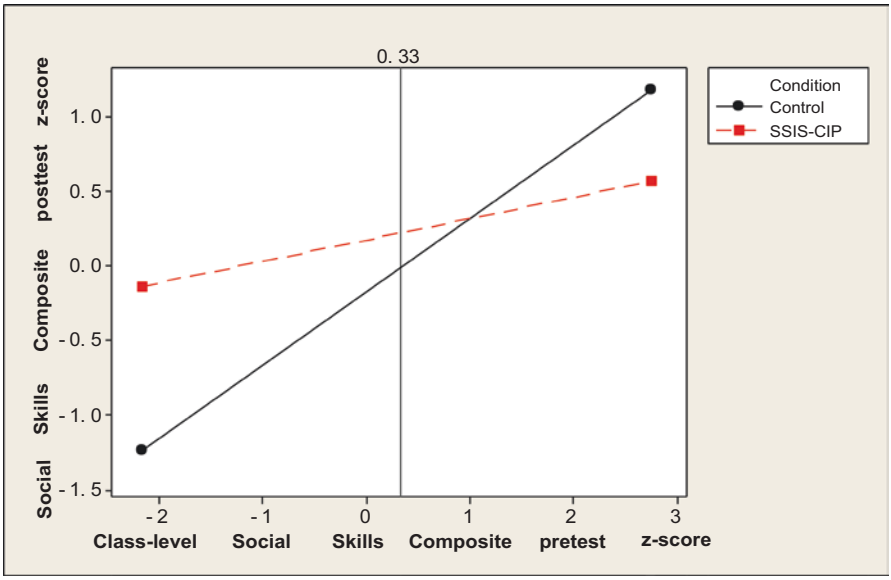

Fig. 4.3 Pretest–posttest effects of the SSES-CIP on elementary students' social skills

Results indicated that CIP participation yielded positive changes in students' prosocial behavior across the primary grades. The second grade participants demonstrated improvement (small-moderate effects) in their overall social skills as well as in the specific domains of communication, cooperation, responsibility, empathy, and social engagement. In addition, tests of interactions indicated that students from classrooms most at-risk due to lower social skills prior to treatment benefitted most from CIP participation. This latter finding is featured in Fig. 4.3 showing the interaction between treatment condition and class-level Social Skills Composite pretest and posttest scores. Note the area to the left of the vertical line represents the region of statistically significant differences between conditions. Though effect sizes were slightly smaller, first graders also demonstrated positive changes in social skills post-CIP, particularly in social engagement, empathy, and assertion.

Similar to the proximal social behavior outcomes, CIP implementation yielded positive changes in students' academic motivation and engagement (intermediate outcomes) as well. Effect sizes again were small-moderate for students in second grade and slightly smaller in magnitude for first graders. With regard to academic skill (long term) outcomes, results for second grade indicated that CIP participation indirectly impacted early mathematics skills (as measured via STAR standardized computer-adaptive tests) through increasing students' academic motivation. Even more promising relative to the target population for the proposed project, CIP participation yielded significant positive changes in the early literacy skills of students with identified disabilities relative to their peers in business-as-usual classrooms.

Figure 4.4 displays the interaction between CIP condition and disability status on reading posttest scores (line = grand mean). Beyond these student outcomes,

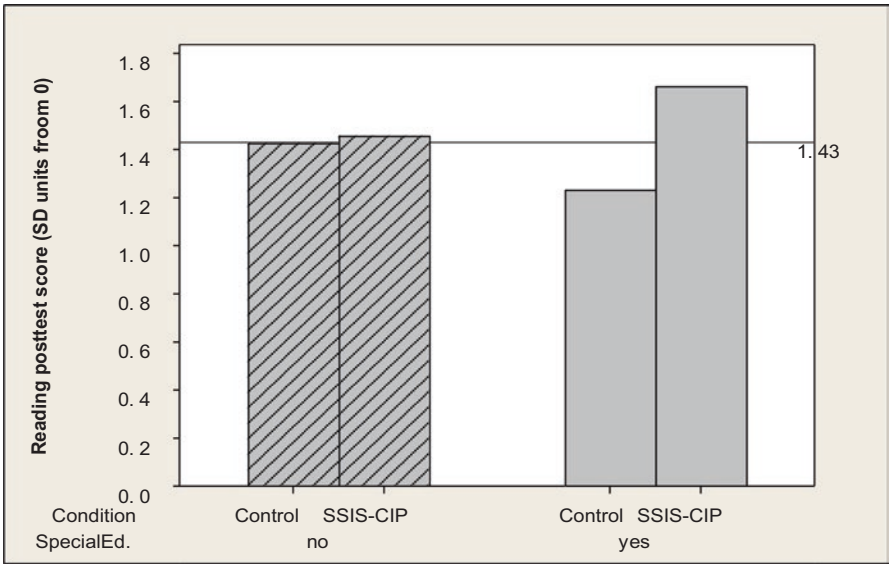

Fig. 4.4 Effects of the SSIS-CIP on reading scores

teachers generally found the CIP curriculum to be a time-efficient (approximately 20–22 min per lesson), appropriate, and acceptable approach to promote positive student behavior in their classrooms. They also indicated that the scripted format of the lessons and well-aligned supporting materials (student workbooks and videos) facilitated high-quality implementation.

Clearly, the intervention research of DiPerna and colleagues reviewed indicates that the students who benefit most from social skills interventions are those who are functioning at the lowest levels socially, academically, and economically. These are the children who often have poorer social models and fewer opportunities to practice their social skills with feedback from adults and may find their conditions concurrently reward alternative behaviors—verbal and physical aggressive and bullying—less conducive to those needed for learning at school.

Conclusions

The importance of social skills in the social emotional lives of children and youth is well-established. Social skills, however, also have been shown to play a major role in academic engagement and as a result have been recognized as academic enablers. These findings have been shown to be particularly salient to the students who are most disadvantaged as learners.

In this chapter, we examined a range of social skills that function to improve children's communication, cooperation, assertion, responsibility, engagement,

empathy, and self-control. Specifically, we identified 15 social behaviors that characterize engagement and another 10 key social behaviors that facilitate and maintain these engagement behaviors, thus reducing social isolation and facilitating educational inclusion. Collectively, these skills also are known to influence students' successful initiation and sustained engagement with others and with academic activities.

Many children do not successfully develop all these important social skills as needed in school. Often, most of these children are coming from different disadvantaged families or environments where they are provided with limited opportunities to learn and practice important social skills, which can lead to adjustment and behavioral issues in school and indirectly causing learning difficulties, disengagement from learning, and poor academic results. Thus, educators often find it necessary to teach social skills to remediate children's social skill acquisition and performance deficits and to reduce or eliminate competing problem behaviors. Doing so, teachers are keen to see an associated improvement in learning engagement and learning outcomes. In this chapter, a rather substantial research literature was examined to document the importance of social skills for improving social engagement; in particular, a series of six meta-analyses were synthesized that document the moderate-to-large effects that social skills interventions can have on promoting the acquisition, performance, generalization, and maintenance of prosocial behaviors. The cumulative evidence from these meta-analytic reviews indicates that almost two thirds of children receiving social skills intervention learn, and more consistently perform, desired social behaviors after participating in the intervention program or training.

As illustrated with the SSIS-CIP, using the six effective and research-proven components of effective social skills improvement programs—Tell → Show → Do → Practice → Monitor Progress → Generalize—professionals can effectively teach key social behaviors known to facilitate social and academic engagement, decrease instances of problem behaviors, and promote the maintenance and generalization of newly learned skills over time and across settings and situations. Classwide intervention programs generally take place over 10–15 weeks and may require only 90 min to 2 h per week. This commitment is less than 2% of a school year, and for many students it is very important to both their social and academic progress and to that of their classmates, as well. Social skills matter and play a significant role in facilitating an inclusive school and classroom environment. Children who are socially skilled can take advantage of opportunities to engage and learn with others, thus advancing their own knowledge and enjoyment of learning.

Empirical evidence attesting to the positive effects of social skills training on learning engagement and learning outcomes is still developing. Positive results have been provided by DiPerna et al. (2002); DiPerna, Volpe, and Elliott (2005) and by DiPerna et al. (2015, 2016) and DiPerna et al. (2017). Additional research efforts are required to verify the link between social skills, learning engagement, and academic outcomes, especially among various groups of disadvantaged students. While

there is unquestionable relationship between social skills and social engagement (such as collaborating with peers), the association between social skills and cognitive, emotional, and behavioral engagement needs research clarification, which is critical for developing social skills engagement interventions capitalizing on the potentials of social skills as a facilitator for promoting engagement.

Chapter 5
"Opportunity to Read": Student Voice as a Reading Engagement Enabler

In this chapter, we examine the issue of opportunity to read in schools that serve mostly disadvantaged students from low socioeconomic (SES) families. Beginning with a discussion on the literature and research on reading motivation and engagement, we argue that the conception of effective readers as motivated and strategic needs attention in its applicability among reluctant readers coming from disadvantaged backgrounds. Often, disadvantaged readers exhibit a high level of reluctance to read in school alongside a persistent pattern of underachievement. In response, some teachers react by dumbing down the reading curriculum, focusing on basic skills training using controlling teaching practices. Such practices will unintentionally limit students' opportunities to engage in meaningful reading and hamper their reading enjoyment. We used data drawn from a case study based on repeated observations and interviews to describe how students' voices were utilized to drive the development of new reading practices that promoted reading for Year 4 students in a low SES school in Queensland, Australia. This case study illustrates how seeking, honoring, and acting on students' voices enable disadvantaged students to re-engage in reading with enjoyment.

Case Vignette: Silent Reading—For Promoting Reading Engagement or Compliance to Classroom Rules?

"The class enters after lunch break. They are talking noisily as they enter the classroom. The teacher (T2) stands at the door and tells them softly it is time for silent reading. He says, 'I am looking for the first five people to be reading silently.' Some students move to their desks, retrieve a book, and begin reading immediately. A majority move to the back of the room and start sifting through large plastic tubs that are full of books. The noise level reduces as the students select their books. T2 moves back to his desk and observes the students. He rewards five students by telling them they can select a friend and sit

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in a beanbag to read. Another five students are still sifting through the books, while two of the boys at a beanbag talk rather than read. T2 does not seem to notice these students are not reading. He is now sitting at his desk marking test papers. A girl gets up from her seat with a book, approaches T2, and begins to ask a question. However, he interrupts her, saying pointedly, "I am marking." She returns to her seat. T2 does not appear to notice the girls on the beanbags have moved so that he cannot see them. They chat. Isaac sits at his desk. He does not have a book so he plays with his pencil case and his hair. He intermittently chats to the students seated at his table. The teacher's laptop makes a loud noise. Many students stop reading and look up. T2 looks around the room and notices Isaac isn't reading. He moves to the back of the class, gets a PM level 2 reader, and gives it to Isaac without saying anything and then resumes marking. One boy is asleep on a beanbag, two girls have a conversation at the book tubs, and another boy flicks through the pages of his book, but does not read. T2 looks up again and this time asks Isaac to bring his book to the front. Together they sit and read the book. Although many students chat and giggle, T2 ignores them. After 28 min, the students are instructed to put their books away."

In this vignette, the teacher (T2) focused on superficial engagement in reading. Reading as a valued activity in this class was reduced to a form of behavioral management where the teacher was satisfied when students were holding a book. Students took advantage of this situation to chat, to rest, and to move around while the teacher was marking. The teacher did not read himself. He singled out Isaac and read with him because Isaac did not meet the minimum expectation of behavior engagement. A key question from this vignette is whether this form of engagement will ensure students have genuine opportunities to read and to read for understanding. This vignette was taken directly from an observation report of an Australian Research Council-funded project that looked specifically into classroom reading behaviors among economically disadvantaged students in schools situated in high-poverty suburbs in Queensland, Australia. Similar reading lessons were observed repeatedly in the participating schools over the duration of the 3-year project. The key questions are how to promote reading engagement for students coming from low SES backgrounds and in what ways their opportunities to read in school might be better supported.

As a special case of learning engagement, reading itself requires attention because reading is critical for academic success and participation in work, civic, and social activities. Without sustained engagement in reading, children find it difficult to cope with the increasing cognitive demand of academic and literacy tasks as they progress through the school years. Situating reading in the twenty-first century context, Alexander and colleagues (2012) draw our attention to reading as a goal-directed, strategic, and critical activity in which engagement is a significant element. Ng and Graham (2017) concur and argue

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that special attention is required to assist struggling readers and support their motivation to pursue reading and to develop capabilities that allow them to engage in literacy-rich economies as participating and literate actors.

In this chapter, we focus specifically on economically disadvantaged students who learn to read under the limitations of various constraints posed on them as a result of their socioeconomic conditions. While it is clear that these students need support from teachers to motivate them to read and to assist them to develop relevant strategies and skills, we have often seen teachers who decide to dumb down the curriculum, focusing intended learning activities on the development of basic reading skills and using controlling teaching strategies and the provision of extrinsic rewards to motivate reading engagement. Such practices make reading a chore as students are required to work routinely on repetitive practice tasks and comprehension worksheets that often do not interest them. Opportunities to read for enjoyment are limited. Inevitably, disengaged reading behaviors like those described in the vignette can be expected in these reading lessons. It is therefore unlikely that reading achievement gaps between disadvantaged and advantaged students can be narrowed if these practices are allowed to continue (Ng & Graham, 2017). To search for more engaging reading practices, we draw on data from a longitudinal study that examined effects of professional development to focus teachers on developing supportive practices to engage these students to read and open up new reading opportunities.

Reading Motivation and Engagement

Reading is an effortful activity for meaning-making that is characterized by deep memory processing, connecting to background knowledge, monitoring, choices, and commitment (cf. Kintsch & van Dijk, 1978; Wigfield, Guthrie, Tonks, & Perencevich, 2004). Students' reading motivation is critical for engaging in reading. A reader who is motivated will be likely to read more and to spend time and effort in reading, even when it involves challenging materials. Expectedly, reading motivation predicts reading achievement (e.g., Retelsdorf, Köller, & Möller, 2014) and better reading comprehension (e.g., Guthrie, McRae, & Klauda, 2007). Research (e.g., Anmarkrud & Bråten, 2009) has also shown that reading motivation accounts for unique variance in reading comprehension over and beyond that explained by other variables.

Reading motivation is a conceptual explanation of readers' "personal goals, values, and beliefs with regard to the topics, processes, and outcomes of reading" (Guthrie & Wigfield, 2000, p. 405). This generic definition allows for different conceptualizations and measurement to be applied to research of reading motivation. In a conceptual review on research on reading motivation, Conradi, Jang, and Mckenna (2014) discussed research on cognitive enablers such as self-efficacy, agency, goals, and interest and showed how each of them promotes reading engagement. More

specifically, students' reading self-efficacy, defined as students' perceived abilities to complete a specific reading task, has been studied extensively. Students, who feel efficacious about their reading, read more and better, expend more effort in reading, and persist longer when reading difficult texts (e.g., Chapman & Tunmer, 1995; Nes Ferrara, 2007; Schunk, 2003; Solheim, 2011; Taboada, Tonks, Wigfield, & Guthrie, 2009). Similarly, students who read as a result of personal interest in a topic or reading for enjoyment are typically engaged in reading with high levels of commitment and persistence. Additionally, students' intrinsic motivation for reading is positively related to reading performance (e.g., Baker & Wigfield, 1999; Guthrie, Wigfield, Metsala, & Cox, 1999; Taboada et al., 2009; Unrau & Schlackman, 2006), and it contributes to the prediction of reading comprehension at various levels, even after controlling for other significant factors such as past reading achievement levels (cf. Guthrie et al., 1999; Taboada et al., 2009). Research by Gottfried, Fleming, and Gottfried (2001) and Wang and Guthrie (2004) provided empirical evidence about the long-term effect of intrinsic motivation on reading. Specifically, their research showed that students' intrinsic motivation in Year 7 relates to later reading achievement levels in Years 8 and 9.

Additionally, educational researchers (e.g., Ng, Bartlett, Chester, & Kersland, 2013; Nolen, 2007) have explored the positive effect of mastery goals on reading and reading engagement from an achievement goal perspective. Students who read with mastery goals are concerned about their comprehension and understanding (Meece & Miller, 2001). Much of their reading focus is on improvement and learning new knowledge. Research evidence has demonstrated that students who hold mastery goals for reading monitor their reading process, use effective comprehension strategies, and achieve deep levels of understanding (Botsas & Padeliadu, 2003; Meece & Miller, 2001; Nolen, 2007).

Aligning with these cognitive models, reading motivation can be conceptualized as multidimensional (Baker & Wigfield, 1999). For example, the Motivation for Reading Questionnaire (MRQ) contains a set of scales based on different dimensions of reading motivation (efficacy, challenge, curiosity, involvement, importance, recognition, grades, social competition, compliance, and work avoidance) which can be collapsed into cognitive variables of competence beliefs, extrinsic reasons, and social purposes for reading that have been adapted from major models of motivation (Klauda, 2009). Conceptualizing reading motivation as multidimensional highlights that students are motivated by various factors. Some read to develop their understanding, others read for enjoyment, while others read to demonstrate their abilities.

Despite differences in conceptualizing and measuring reading motivation (cf. Conradi et al., 2014), describing students' motivation for reading using a range of motivational dimensions provides a better understanding of how students engage in, and disengage from, reading. In particular, reading motivation includes both affirming and undermining motivations, and often these contrasting motivations are related (Schaeffner & Schiefele, 2007), suggesting that both forms of motivation are operating simultaneously among students. In addition to the dominant cognitive dimensions of reading, social dimensions, such as collaboration, have been increasingly

observed. This suggests that there is a need to look beyond an individual's mind frame and examine how reading is supported through social processes, such as promoting interaction and discussion in class, and to understanding the affective dimension of reading motivation (Afflerbach & Cho, 2009).

Motivating Students to Read

Given the significant impact of these motivational variables, it is important to create an instructional context that supports reading motivation so as to facilitate reading engagement and enhance reading achievement. A major form of support is to use texts that students can read successfully, willingly, and with interest. In this way, students' senses of self-efficacy, interest, and personal relevance can be enhanced. Allowing choices of material for reading in relation to what and how to read sends an important message to students about their own agency as readers. In addition, there is a need to consider whether reading materials are personally relevant, how well they reflect students' personal experiences, and to what extent they accommodate diversity and prior knowledge. The extent to which students are given a chance to share, collaborate, and discuss their reading is an important instructional consideration for supporting reading and reading motivation from a social perspective. Focusing students on the importance of reading and communicating high expectations helps to promote students' motivation to read. In short, a supportive reading context promotes reading motivation and sustains reading engagement, which is likely to enhance reading achievement.

The development of reading intervention programs has drawn heavily on reading motivation studies. For example, Guthrie and colleagues (2007) designed the Concept-Oriented Reading Instruction (CORI) program to enhance students' reading motivation and provide instruction on reading strategies for comprehension in science and social studies. Empirical evidence supports the CORI program as effective in promoting reading motivation, engagement, and achievement (Guthrie et al., 2007). Another example of intervention is the Finnish Joy for Reading program (Ukkola & Korkeamäki, 2017) that specifically targets the development of reading for enjoyment utilizing a community-based approach to support, drawing from schools, libraries, and clubs in local communities.

Economically Disadvantaged Students and Reading

While cognitive models have provided an empirical foundation for designing instructional interventions, the effort thus far to transact such knowledge into effective practice has not been consistent nor readily realized for students who are at risk of reading failure or who are from disadvantaged backgrounds. Klauda and Guthrie (2015) found that low-achieving students did not benefit from reading motivation as

much as typically achieving students did. They argued that the connection between reading motivation and engagement should not be assumed for low-achieving or struggling students, most of whom are classified as at-risk and as coming from economically and culturally disadvantaged backgrounds. Certainly, more studies are needed if we are to understand better when and how reading motivation and engagement operate among these disadvantaged students. This is particularly important, as mounting evidence demonstrates that disadvantaged students from high-poverty backgrounds often lack motivation to read and tend to disengage from reading readily. These children may have avoidance motivation, a source that will reduce their time and effort for reading (Guthrie, Klauda, & Ho, 2013; Blackberry & Ng, 2016).

Poverty impacts negatively on opportunities to read and hampers reading development and engagement. Students who come from poor families have limited language exposure, few chances to engage in vocabulary learning and joint reading activities at home compared to those from affluent backgrounds (Rashid, Morris, & Sevcik, 2005; Walker, Greenwood, Hart, & Carta, 1994). They come to school with a weaker language base and less-developed literacy skills compared to their middle-class counterparts. Many students who come from migrant or ethnically diverse backgrounds, such as Indigenous Australians, Hispanic, and African-Americans, as well as Asian migrants, are still in the process of developing their English language skills, while their mother tongue may act as a barrier to reading and writing in English. Their cultural resources may not be valued or considered relevant in literacy learning in school (Compton-Lilly, 2006, 2007). This puts disadvantaged students in a challenging position when they are required to understand, participate, and collaborate in literacy tasks that demand a level of language exposure and cultural understanding beyond their experience.

Complicating these issues in reading development are adversities derived from financial hardship, limited community resources, broken relationships, health issues, depression, and a lack of hope for better futures. In addition, disadvantaged students may have problems associated with their cognitive functioning including short attention spans and difficulties in regulating their concentration, monitoring work progress, and generating personal perspectives (Alloway, Gathercole, Kirkwood, & Elliott, 2009). Classrooms where these students seek out opportunities to learn and flourish are often under-resourced, with fewer books and limited access to digital technologies, and staffed by teachers with insufficient training to prepare them to work effectively with disadvantaged students. The literacy learning activities in these classes are often repetitive, rote-like, and unchallenging. In short, multiple risks are present in the individual, classroom, and in- and out-of-school contexts which hamper reading development and engagement for students from low SES backgrounds.

Nevertheless, schools and teachers still can play a significant role in rectifying negative consequences of poverty for reading development. Crowe, Connor, and Petscher (2009) discussed curriculum as a conduit for improving reading for poor students. Designing appropriate instructional strategies, such as using skill-based reading groups (e.g., Pressley, Wharton-McDonald, Mistretta-Hampston, & Echevarria, 1998), can improve poor students' literacy skills and achievement

(Pressley et al., 2001; Foorman et al., 2006; Taylor, Pearson, Clark, & Walpole, 2000; Wharton-McDonald, Pressley, & Hampston, 1998). Irvin, Meece, Byun, Farmer, and Hutchins (2011) studied large cohorts of low SES schools in rural regions in the United States. They found that students' schooling experiences, including teachers' positive perceptions of their ability, a sense of school valuing and belonging, and preparation for post-secondary education, predicted positive educational achievement and aspirations for rural youth from high- and low-poverty communities. Ng et al. (2013) have developed a reading intervention that utilized motivational support through email contacts with retirees to support disadvantaged students to learn structured strategies for reading. The important message is that schools and teachers using evidence-based practices can shape instructional contexts for better literacy outcomes of students from poor families.

To enhance teachers' capabilities in developing and rebuilding a learning environment aimed at re-engaging poor students with reading, it is important to recognize and address negative influences on reading and reading engagement in school. Issues such as lack of resources, lack of access to quality teachers, and limited family or parental involvement in school are important school-level influences that have contributed negatively to engaging poor students in reading. In addition to these well-documented issues, there are dominant discourses that put most of the causative blame on students themselves while limited effort has been made to secure and enhance their participation in reading education and in improving their reading engagement in school. Students' voices and perspectives seldom have been used to reform reading practices. This is a missed opportunity and resource that can be utilized by informed reform-minded teachers to improve reading.

It is important to assert that students, regardless of their socioeconomic status, have the right to express their views about all the matters that affect their development, including reading engagement in school (UNICEF, 1989).

Student Voice as an Academic Enabler for Reading Engagement

The research on student voice and using it to guide school reform has gained momentum in the past two decades in Australia, Britain, and the United States (e.g., Fielding, 2001; Levin, 2000; Mitra, 2004; Mitra & Gross, 2009; Rudduck & Flutter, 2000). Educational researchers such as Fielding, Levin, and Mitra have discussed the importance of student voice, utilization of students' perspectives for reform, and the possibility of engendering a cultural shift based on their voices. Student voice epitomizes involvement, participation, and, more importantly, a shift of power dynamics where teachers respect and endorse students' rights, knowledge, and agency. When teachers value student voice, they are likely to listen and respond to students' spoken and unspoken concerns, needs, and critiques. Whether student voice is sought through dialogue, collaboration or sharing of the leadership role, or

in different discourse forms such as storytelling, exchange, and critique, voicing is no doubt indicative of active engagement (Cook-Sather, 2006). Mitra and Gross (2009) distinguished different types of student voice activities using the "pyramid of voice" framework wherein voicing activities are classified into three levels—"being heard," "collaborating with adults," and "building capacity for leadership"—depending on how students are expected to be involved. As can be imagined, a deeper level of engagement in the form of partnership and agency is required by students at the upper levels of the pyramid of voice.

Student voice is a concept that has played a significant role in progressing pedagogical development. For example, Ranson's pedagogy of voice (Ranson, 2000) has built on student voice and advocated the need to include students' perspectives in the course of teaching. Seeking students' perspectives is a critical part of constructivist learning process where students construct their knowledge through conversation (Bruner, 1996). In addition, dialogic learning has inspired sociocultural theories of learning wherein the development of knowledge and new understanding are dependent on students' active exchange and dialogues (Van der Linden & Renshaw, 2004). In short, student voice is not a new concept and has been used quite extensively in advancing pedagogical research.

An important consideration when using student voice in progressing reforms and changes is that student voice is not an objective entity. To understand students' voices, there is a need to consider relevant sociocultural contexts that influence them. In the current case, students' reading engagement is constrained by important contextual factors, such as the valuing of reading at home and what opportunities are provided to read with peers in school. It follows that students' voiced perspectives and viewpoints may reflect such influences, which can go beyond the immediate classroom context and include effects, both positive and negative, derived from home and out-of-school contexts, such as reading through social media (MacRuairc, 2011). Using student voice to promote reading engagement for disadvantaged students requires careful consideration about how embedded contexts may influence students' expressed concerns, suggestions, and viewpoints.

There are benefits for incorporating students' perspectives in researching reading and reading engagement. First, disadvantaged students hold important and valuable knowledge about reading and how they experience it directly. Important insights about the effects of different types of reading in school can be developed by taking students' vantage points. Acknowledging their voices empowers these students and helps their teachers find effective ways to address these constraints and to capitalize on available affordances. Listening to them also endorses their authority and accepts their role as significant in improving classroom reading practices (Taylor & Robinson, 2009). Listening to them will help teachers reflect on the design and implementation of reading programs, develop new practices, and use these results derived from students' perspectives to improve reading and reading outcomes.

Second, endorsing student's voices not only will empower them and promote participation in their own education; it also will avoid a deficit perspective toward reading education that inadvertently positions disadvantaged students as incapable of reading and achieving reading outcomes (Ng & Bartlett, 2013). Finally, listening

to students' voices can aid teachers' professional reflection and lead to more collaborative and solution-oriented environments for the learning and teaching of reading. In the context of developing engaging reading practices, listening to students' voices is a critical step in unfolding both intended and unintended consequences of reading activities and assessment.

Orienting Teachers to Students' Voices

In a longitudinal project, the first and second author followed a group of Year 5 students from disadvantaged backgrounds in low SES schools in Queensland, Australia, over a 3-year period. The research focus was their classroom reading engagement. Over this period, selected students were interviewed, their reading classes observed, and their teachers' views about these students' reading engagement recorded.

Toward the end of the project, participating teachers and the research team collaborated on a professional development partnership that aimed to help teachers develop new engaging practices to support and enable their students to read with purpose and enjoyment. Seeking students' participation in the reform process was used as a means of developing engaging reading practices. To help teachers tune into the needs of students, the project provided participating teachers with professional workshops reflecting on interview and observation data collected from their classrooms. The selection and development of the professional learning materials were intended to arouse teachers' understanding of students' needs and the urgency of revising reading practices. In the sections below, we first explained the steps that we used to help teachers to tune into student voice, and thereafter, we present a case study of a teacher's year-long engagement in reforming reading practices in response to student voice.

Step 1: Reflecting on Research Findings

A viable way to help teachers value students' perspectives is to provide them with an opportunity to reflect on students' comments and responses to their own teaching practices. In a professional workshop, the teachers were shown excerpts of observation reports and students' interview transcripts. They were challenged to think about why students had responded or behaved in the way that they had, as revealed in the reports and transcripts, and whether their perspectives about reading should be taken into consideration during the reformative process. By way of illustration, we challenged teachers to consider carefully the statement, "I am bored with reading" in one of the interview transcripts. The teachers were directed to consider various contextual factors and conditions including the nature of the reading task, the timing of the reading lesson, the extent to which students were allowed to read together,

and, specifically, the specific student's reading performance and home environment. This reflective process helped teachers understand students' perspectives and recognize the potential of using student voice in reforming reading instruction.

Step 2: Scenario-Based Learning

It is important that teachers are given an opportunity to share their own views and have their voices heard in the promotion of reading engagement. We engaged participating teachers in a discussion about classroom reading scenarios that depict unsuccessful classroom practices and problematic reading behaviors based on the data from an earlier interview about, and observations of, their practices. In each written scenario, teachers were provided with detailed information about the reading context such as descriptions of reading activities involved, time and duration, and actions of, and interactions between, teachers and students. Teachers worked in a group to discuss the nature of the reading problem(s) from the perspectives of students and that of a teacher and suggested ways that the practice or promotion of reading within the context in each scenario may be improved. Two important outcomes that arose from the scenario-based professional dialogues were that teachers (1) were keen to improve their practices, having recognized the authenticity of the scenarios and recognized that they had experienced similar problems in their teaching, and (2) understood the significance of student voice and were keen to utilize this concept to improve reading practices.

Step 3. Voice-Seeking Heuristics

Teachers were provided with training in relation to different ways to elicit student voice with a deepened understanding of the political nature of student voice. Teachers were warned against simplistic views about student voice and of the danger of equating voice to an individual while omitting the need to situate such a voice in the context where different parties contribute to its formation, interpretation, and even distortion. There is a need to carefully reflect on issues related to the imbalance of power, the tendency to select students who are well-behaved or good achievers, and the additional contextual constraints that may hinder the voicing and listening processes and the extent to which these issues need to be addressed in order to facilitate speaking and listening. Teachers were encouraged to seek student voices from multiple individuals to capture diverse and disparate views and experiences using different channels (e.g., forum, individual chat, questionnaire, observation) at different points in time. It is important to verify their understanding of students' perspectives through different methods including careful observation; noting of verbal and nonverbal responses including facial expression, gestures, and gazes; speaking with others, repeated talk and discussion; and, most importantly, using relevant

details derived from contexts and situations to frame their understanding. In effect, these guiding heuristics helped teachers avoid manipulative and tokenistic treatment of student voice (Fielding, 2004). It also enabled teachers to understand the importance of situatedness of student voice, hence the importance of continuously seeking students' perspectives as well as their voiced and unvoiced responses, across multiple occasions relevant to learning to read (Bragg, 2010; Fielding, 2004).

An Example of Student Voice-Enabled Change

In this section, we describe a case study of a Year 4 teacher, Naomi (pseudonym), who worked in a state primary school located in a high-poverty Australian suburb where low SES students not only performed poorly in reading but also disengaged often from it. Naomi was one of several teachers who partnered with the research team to develop new practices to engage students to read and who used student voice as a guiding principle in doing so. Naomi found that seeking, utilizing, and building upon student voice to develop engaging pedagogical practices were challenging. She had never thought of seeking student participation to develop reformative pedagogy. However, she understood the significance of student voice following the training and wanted to capture the potential of this concept to develop new practices to promote reading for enjoyment for her students who often refused to read or avoided reading altogether.

The construction of this case study involved data collected over an academic year in Naomi's class, involving interviews with Naomi and most of her students ($n = 20$), records of professional meetings, classroom observations, and a collection of documents. Using multiple data sources facilitated triangulation of data from the perspectives of students and that of the teacher and ensured trustworthiness of results. This case is illustrative of how student voice may be used as an engagement enabler to develop engaging practices to promote reading for enjoyment. Pseudonyms were used in describing this case of student voice-driven change for promoting reading engagement.

The Context

Building on its history of over 90 years, Kingford Primary School had a tradition of personalized learning. Its inclusive education program won an award from the state education department. Being set in a multicultural community, Kingford Primary School enrolled students from culturally and linguistically diverse families. The school's mission was to help all students to be successful and to develop their personal well-being. These foci aligned with the aim of the project, in which the school's teachers would seek partnership with students to improve their reading and reading engagement. As expected, students in this school had not done well in

national tests of literacy and numeracy. In the previous four rounds of national tests, students of Kingford Primary School in Years 3 and 5 performed poorly when compared to their advantaged counterparts in schools located in high SES suburbs.

The principal was supportive of the current project. Not only did he release several of his teachers from teaching duties to join the professional training, he also participated in some of the workshops with them. His leadership was vital for nurturing the university–school partnership in the project and enabled several of his teachers, including Naomi, to join the student voice study for reading improvement.

Naomi held a bachelor degree in primary education. At the time of research, she had 23 students in her class, 15 of whom were classified as English language learners from minority backgrounds. The research team had worked in this school for more than 2 years, and quite a number of students in Naomi's class had participated in previous studies about their reading in school and at home. Based on these previous student accounts, most of Naomi's students did not read at home due to a lack of reading resources and, more importantly, due to the fact that reading was not a valued practice in their families. Some parents did not sign a consent form for their children to borrow books from the school library fearing that their children might lose the books, resulting in them being financially responsible for the replacement of the book. This had made library visit for these students in Naomi's class rather unmotivating as they could not borrow any books. As a migrant herself, Naomi related to her students and understood their difficulties in learning and the lack of familial support that many of them experienced.

Initial Thoughts

During the first research meeting, Naomi indicated that she had been thinking about the scenarios that they had worked through during the professional development workshops and the reading problem in her class, in particular, a lack of engagement of most students during silent reading. She indicated she wanted to make silent reading more purposeful for students and to develop support for them to become engaged and independent readers who would read with enjoyment. However, she was unsure about what "engagement" would mean in her class.

> I am a little concerned about what engagement might actually look like in a classroom. This year I have a class of 23 students with a range of reading decoding and comprehension abilities. While I have seven students comprehending "at" or "above" chronological age, the remainder of my students were reading at an instructional level below benchmark.

Naomi was concerned about her students' low levels of reading achievement, which might pose difficulties for them when attempting to engage in reading. This then became a focal point of discussion between Naomi and several other teachers attending the research meeting led by the research team. As a group, the teachers shared ideas about reading engagement and discussed the relationship between low achievement and reading engagement. A key question was whether disadvantaged

students could develop sustained engagement in an area of learning where they were performing less well, in this case, reading in school. This discussion challenged teachers' beliefs about disadvantaged students and their understanding of conditions that may contribute to students' low achievement and lack of engagement in reading. They affirmed their students' capabilities and shared observed occasions where low-achieving students showed keen interest in reading, as well as reading situations where their students were likely to disengage. Naomi spoke specifically about the need to avoid holding a deficit perspective and warned about the danger of attributing students' failure to read to deficiencies in skills, motivation, and other personal capabilities. Naomi focused her sharing on students' reluctance to read during silent reading and her intention to turn this daily event into an enjoyable time that promotes reading engagement.

> It was about mainly improving my practices with regard to whole-class reading. Not so much the small guided reading groups but more shifting away from the current silent reading and giving my students a little bit more of, ah, like, fun, that fun element in reading. So yeah, just improving, just helping them to become lovers of reading.

Partnering with Students and Honoring Their Voices

Naomi recognized that she had an educational problem. Previously, the school practice relied on the assistance of a literacy coach to demonstrate effective instructional practices. Naomi had benefited from professional engagement with the coach. Nevertheless, silent reading was not the focus of this type of professional engagement due to the assumption that silent reading is a student-led reading time and teacher intervention or control seemed inappropriate.

Naomi considered it vital to talk with her students to seek their perspectives and views about silent reading. She arrived at this decision following the professional meeting with the research team. Several strategies were developed in relation to how she could effectively gather students' input about silent reading based on the guiding heuristics for voice-seeking. She started with speaking to the class in an open forum asking students to share their views and make suggestions to improve. As expected, her students who were unfamiliar with speaking publicly about their views did not respond enthusiastically during the open forum. Naomi reflected on her unsuccessful experience with the team, and it was collaboratively decided that speaking to students individually and observing them in different reading situations would be a better approach. Naomi was reminded of voice-seeking strategies including the importance of building rapport, communicating her genuine interest in students' views, allowing students to share freely, and promising to honor their views and to make changes. Students' accounts of this personal chat are unanimously positive, and they were pleased to talk about their likes and dislikes about silent reading with their teacher. The following excerpts testify to students' positive feedback.

Miss asked what I like to read. And I said I liked reading dinosaurs. (Nathan)

I was happy. No one asks me what I would like to read. Miss asked me. I told her I liked comic books. (Peter)

She cared about us. She asked me what I would like to read. (Carissa)

Naomi noted students' suggestions for changes. Following the heuristic, she observed students in different reading situations to ensure accurate understanding of students' sharing and that their suggestions for change were genuine. For example, many students shared that they disliked the classroom collection and suggested books that they would add to it. To verify this suggestion, Naomi observed students' reading during library visits to see if their choices matched their suggestions to include in the classroom collection. This voice-seeking and verification process took a month to conclude. Naomi consolidated a list of changes that her students suggested for the reading sessions and discussed with the research team about whether these changes were possible and reflected on the voice-seeking process before developing a plan to honor students' suggestions. Below is a list of changes that Naomi intended to implement in her silent reading sessions.

- Students are free to choose a spot to read in the class; they are no longer required to read in their own seat, but they can still do so if desired.
- Students can read with a friend or a group of friends; they are no longer required to read on their own, but they can still read alone if they choose to do so.
- Students are allowed to share their reading with friends provided that their discussion does not interfere with others' reading; they are no longer required to keep quiet during reading.
- Silent reading would be moved to the morning before the first break when students could read with a fresh mind.
- Students were provided opportunities to share with the teacher their reading materials.
- Students were allowed to read materials they brought from home and the library; they were no longer required to choose books from the classroom collection.

These changes were based on students' feedback and suggestions in response to the question about what could be done to make reading better during silent reading sessions. These changes endorsed student autonomy in enabling reading choices in relation to what to read and in what manner students read during the silent reading sessions. Responding to the research team's advice, Naomi held a meeting with her students to share the changes that she gathered from students and her plans to change. All the students were excited about the changes with some raising questions about whether they could still read alone as one of the suggested changes was to read together with friends. Naomi assured the class that both individual and group reading were encouraged. During this sharing session, Naomi also reinforced her intention to focus students on reading and reminded them that silent reading was time for their own personal reading and that discussion and collaboration were acceptable as long as students did not interrupt others' reading. Following this meeting, Naomi wrote up an action plan to guide her own implementation using an action plan template that the research team shared with her and other teachers.

During the implementation phase, Naomi explained that there was a need for continual "tweaking" during the change process. She gave an example of helping students who were unable to borrow books from the library. Naomi shared that students who were not allowed to borrow for whatever reason, parents wouldn't sign the borrowing form, then I would let them get the books out under me." In addition, Naomi shared that she needed to remind students about what they were expected to do. Naomi commented that "I set the expectations there and I kept saying to them—because reading is cool. You might not think that now but by the end of this time I want you to know—I want you to feel that."

Accounts of Improved Reading Engagement: The Teacher and Observation Results

During the second semester, repeated classroom observations were conducted, following the implementation of these changes, which verified that the reformed silent reading sessions were effective in supporting and sustaining reading engagement. Naomi's students maintained a rather quiet classroom during silent reading sessions even though they were allowed to talk about their reading in the new arrangement. The time that students needed to start reading was shortened. Many were unwilling to stop reading at the end of the silent reading sessions resulting in Naomi's subsequent decision to extend the silent reading time to 30 min each day. Students were eager to share their reading and talked about what they had read. Initially, students were allowed to share with the class about their reading at the end of the silent reading session. Subsequently, due to time constraints and students' keenness to share, Naomi had set aside extra time at the end of each school day to facilitate the sharing of reading. These observed changes support the claim that students' reading engagement had improved following the implementation of student voice-based changes.

During an interview following the changes, Naomi shared with the research team her perspective about students' improved reading engagement. She highlighted some observed behavioral engagement including reduced noise levels, sharing of reading with peers, persistence of reading (issuing the same book from the library until finished), concentration during reading, bringing new reading materials, and willingness to share reading with her. These engagement behaviors were absent at the beginning of the academic year. More significantly, Naomi reflected on her own behaviors as a reading teacher. Prior to the change, Naomi was concerned about discipline and noise levels while omitting the need to encourage students to read. Following the change, Naomi was more concerned about students' reading. She explained that, "I've pulled back" and refrained from focusing on discipline and affirmed that "the reward really was reading."

Naomi herself was a reader (not a controller) in this evolving reading community. She found more time to read to the students, and, during the second observation, she was seen reading *Anna Hibiscus* written by Atinuke, a series of books set

in modern Africa about young Anna Hibiscus, her large extended family, and their fantastic day-to-day adventures. Naomi explained that she "chose this text as it explored cultural differences yet presented themes that were both universal and child-centered." She commented, "my students relished being read to and often shared their own like experiences after I had read sections to them." In the interview, she shared that she had read *Oliver Twist* and often read some of the texts to her class, which sparked students' interest in this book. On one occasion, some of her more capable readers got into an argument because they each wanted to issue *Oliver Twist* from the library for their personal reading during silent reading sessions. In addition to reading to the class, in our repeated classroom observations, Naomi was often seen reading with individual students or small groups. One student told us, "I like how Miss sometimes comes to us, and we tell her interesting facts, or we can read to her a favorite part of the book." Below was an excerpt from one of the classroom observations of Naomi's class following the changes.

> The teacher (Naomi) continued to move around the room and talked to students about their reading. "What do you think about...?" Naomi would ask her students to initiate a chat. Students were eager to respond and often heard saying, "that's what I think…." Naomi was friendly, quiet, and calm. This was rather different from what Naomi's focus on maintaining classroom discipline during silent reading sessions at the beginning of the year. The students seemed happy to talk to her as evidenced by their relaxed body language and the mutual smiles that are exchanged between Naomi and her students.

Naomi reflected on conditions that she found difficult throughout the implementation process, which included a crowded curriculum and established routines. She summed up these challenges in terms of time. "I have to find time. And I found the time" was her solution. She gave an example about visiting the library. Recognizing the library's role in silent reading, and as both a rich source of reading materials and a place for enjoyable reading, she found time to bring her class to visit the library once a week, something that previously had not been possible due to the need to follow an established routine. Another point of reflection was reading for learning. Acknowledging the role of reading to learning in other areas, Naomi described how the reformed silent reading promoted learning beyond reading itself and aided students' learning in other curriculum areas. Below is an excerpt where Naomi explained how she capitalized on students' interest as shown in the books they selected to read during silent reading and linked them with learning in other curriculum areas. At the end of the excerpt, Naomi explained that using students' reading focus during silent reading facilitated curriculum learning that she might have been able to cover.

> Like, for some reason at the moment my kids are into dinosaurs during silent reading. They're into dinosaurs. So I've now grabbed Walking With Dinosaurs. So we watched a little bit last week. I didn't plan for that, but I found the time somehow, but they can't wait to watch a little bit more of that. I've just found I'm able to link into other KLA's quite easily. They can't wait to get down to the library. They did not know that what they read help them learn in another area… this is their focus, and I could use that to help build on those other areas that I have missed out on or I do need to catch up on.

In short, Naomi changed the way she conducted silent reading which, to a great extent, promoted students' reading and helped her teaching as she developed new ways to link silent reading with other curriculum areas. From an engagement perspective, this made reading meaningful and worth pursuing. At a reflective meeting with team toward the end of the study, Naomi shared with us two important observations that suggest students' sustained engagement in reading, viz.,

> A lot of my students have taken upon themselves to participate in follow-up tasks to do with their texts. I have seen students write interesting facts as they read, draw favorite pictures, and watch videos on YouTube at home about something they read in silent reading sessions.
>
> Another observation, which I mark as probably one of my most proudest moments as a teacher. is the fact that while my students really enjoy listening to me read to them, we have reached a point where I now have to take turns to read with some of my less-engaged readers, and if I read a bit more than they like, they comfortably remind me that it is their turn to read.

Accounts of Improved Reading Engagement: Students' Views

What did Naomi's students say about the new silent reading sessions? To understand students' experiences, 20 students who provided parental consent were interviewed. The focus of the interview was to understand students' experiences during the change and what might have contributed to their improved reading engagement.

Students' accounts of improved reading engagement were unanimously positive. Many indicated that they had read more since the implementation of the new arrangement and would want to spend more time reading. One commented, "to make reading better, I wanted to read until second break," which meant a reading session of over 2 h. All 20 students reported positive experiences derived from the change process. Their accounts shared a unanimous voice about improved reading engagement, aligning with Naomi's description and reports based on repeated classroom observations. Students talked about what they liked about the new reading arrangement and explained why they were more inclined to read. A thematic analysis of these interview transcripts based on several rounds of reading and coding resulted in two broad themes that students considered important for explaining their improved reading engagement, viz., (1) choice and control and (2) reading together.

Choice and Control

Choice and control covered what students could read and where they could read it. Previously, they had no choice in what to read or in how they read. Students were expected to read from the classroom collection, a limitation to which many students expressed disdain. In relation to how they read, students used to read in their own seat and maintained quiet while reading to themselves. Interacting with others was

not acceptable in the old practice. In short, the old practice did not afford students any choice and/or control. Research has shown positive effects on reading as a result of the provision of choice and control (Baker, 2002; Guthrie et al., 2013; Ivey & Broaddus, 2001). In addition, studies on autonomous reading motivation have shown that when students' choices are supported in the reading process, they are more likely to engage in reading (e.g., De Naeghel & Van Keer, 2013). The interviewees shared these research-based positions and considered the choice and control afforded in the new practice as contributing to development of an engaging reading environment. All students shared the importance of finding a place where they would feel comfortable to read in class. The excerpts below suggest that a choice in relation to where to read was related to personal comfort.

> Because if you don't get to choose where to sit, you sometimes might get upset and we don't want to be sitting at that place.
>
> I like being on the carpet and lying down because like in school we always sit at our tables or like on the mat and if we can lay down and yeah.
>
> Choosing where you can sit it's like amazing because when you just sit at your desk for like half an hour, it gets very slow and they might hurt you. But sitting in a place that you're comfortable makes reading more fun.

These students wanted to feel comfortable when reading. Paul suggested that Naomi should consider having "a reading place," like a reading corner he used to have in prep where they could lie down on cushions. However, most students talked about the personal comfort in choosing a place to read in the class, at a deeper level, having such a choice was somehow related to trust. In the excerpt below, Carissa talked about different choices she could make in relation to reading and that having trust from the teacher made her "feel like at home."

> Researcher: Anything else that's made it better?
>
> Carissa: You can lie down.
>
> Researcher: That's good.
>
> Carissa: You can choose anywhere you want around the classroom, you can do anything, it has to be reading, you can even do games.
>
> Researcher: So the teacher trusts you to do the right thing?
>
> Carissa: Yes. That's important. I feel like at home.

Another important way to support students' choice in reading is the selection of books. An important change was the variety of reading materials accessible during the silent reading sessions. Students were allowed to bring books that interested them, either from home or from the library. For example, a number of them shared with us their interest in reading comic books and "Horrible Histories." Allowing students to read materials that they find interesting is a research-informed practice that aligned with students' proposed changes in silent reading. In the excerpt below, John explained in a graphic way how he would feel if he was to read a book that he did not like.

> Sometimes when you're reading a book you don't like, it just makes you like feel scared because you really want to throw it, but you're just looking at it, looking at everyone else, and you start to feel like real dizzy. So I leave my book on the floor and go out and wash my face.

The classroom collection offered limited choices and failed to appeal to students' reading interests. Naomi responded to students' suggestions and made an effort to update the classroom collection to include books that students found interesting by borrowing these from the library. One student commented, "I like it even more now because we get to go and choose new books from the library and our classroom collection each week." Nevertheless, several less-engaged students in the class showed interest in reading only comics and sport magazines. Peter was one of them. He talked about how pleased he was when he could read comic books he had brought from home during silent reading sessions:

Researcher: I noticed that you read a lot during silent reading time?
Peter: Yes. I love reading now.
Researcher: Can you tell us why?
Peter: Miss allowed me to take my comic books to school. I find novels and other stuffs in the class boring. I don't want to read them. I would just pretend.
Researcher: But you don't pretend reading your comic books.
Peter: No. I like them. I want to share them with my friends. I have learnt new words from them too.
Researcher: That's great. Could you do this last year?
Peter: No. Definitely not.
Researcher: What if you were not allowed to read comic books? What would you do?
Peter: I would not read. I would leave the book open.
Researcher: I saw you reading a dinosaur book with a friend last week.
Peter: Yes. I finished my comic book and my friend wanted me to read his dinosaur book together. It was quite fun actually.

Undoubtedly, Peter was more engaged in reading, though his love of reading was confined to comic books. Endorsing his choice affirmed his reading engagement and might provide an opportunity for teachers to expand his reading interests in the future.

Reading Together

Another major change in the practice was that students could read together with friends. Previously, students were expected to read silently and alone. Naomi responded to students' requests to allow them to read together. All the students were conversant about various benefits of reading together, which included sharing and learning, building confidence, and motivating each other to read.

Reading together offered an opportunity for students to learn from each other and to share their reading. In Naomi's class, a group of boys loved reading about dinosaurs and shared this interest with each other. Nathan, one of these boys, discussed his urge to talk about dinosaur books.

Researcher: Why is it good for you?
Nathan: Because I talk a lot. If we do silent reading, I can't like talk as much and like it's not enjoyable enough. So, if I was read with group of people, I can talk.
Researcher: And what would you talk about?
Nathan: Because I like dinosaurs and I get dinosaur books and like my other friends they have dinosaur books so then we talk all about them.

Matty, who befriended Peter and invited him to read a dinosaur book with him, as shown in the excerpt above, was diligent in jotting down notes about dinosaurs, making his own facts book about them.

> Researcher: Please tell me why you like reading together in a group.
> Matty: Yep.
> Researcher: What is the reason?
> Matty: Yeah. Because I've got like a lot of facts about dinosaurs, real facts and fake facts and I can talk about them.
> Researcher: Right. So, you were writing notes down. What were you writing them for?
> Matty: I like more information about my dinosaurs. I created my own facts book.
> Researcher: And were you going to present those to someone?
> Matty: Yeah. I talk about that in my group. They loved it.

Like Matty, Maria also diligently made notes about what she had read and shared these with others. Maria commented that

> I like quiet reading now because when we read our book, we can write it down on a piece of paper and we can make it into facts or fiction diaries and we can use that to share with other people who have not read the same book.

Helping others to learn goes beyond books and reading for personal interest. Sharing in this class involved understanding cultures as Naomi's students came from different minority backgrounds. Students often brought culture-related books to share. The excerpts below indicate that reading together provides opportunities to learn about other cultures and languages.

> I like it because we're from different cultures and they can tell you something new about their culture when we read together.
>
> When you're reading, if people don't understand English, you can read it in English as well and learn other people's languages.
>
> I like reading together and we share books from our own culture.

Reading together offers opportunity to learn from mistakes. These once-disengaged readers were rather conscious about the mistakes that they made while reading. They felt more confident in reading when they could learn from each other. Students pointed out that they could learn about how to pronounce difficult words by listening to others' reading and were able to learn from others' mistakes. The bottom line as Nathan pointed out was, "when you read it by yourself, you don't know if you've made a mistake or not and you don't learn from it." The following excerpts show that these students were rather strategic in relation to developing their confidence in reading by learning from others.

> It's good for me because when we get to read, we can read to other people and we can share about how we read and what we have read and our mistakes and you can learn from that.
>
> Sharing your own reading will make some people smarter, and they will tell somebody else that things so they will get smarter.
>
> Reading with other people is cool because sometimes we make mistakes and people, they can tell you. But when you read to other people, you cannot be scared of sharing with other people. So, you can build your confidence when you're with other people.

Reading with others offers a chance to regulate one's reading motivation. Quite a few students commented that they could share a book with others when they felt

bored. This was a strategy that the team observed several times. When students did not feel like reading, they would pair up with other students who were willing to read together. The boys' group who shared an interest on dinosaurs went one step further by creating their own game to keep themselves motivated to read. The excerpt below is Nathan's explanation of how the game worked.

> We read our dinosaur books. We would get the atlas and go at the back and it's a game. Whoever finds the flag is the make them fun flag. We have to try and read the book first. We change it around sometimes find the colors of a flag and name the country.

Taken together, students' accounts affirmed their improved reading engagement. These students clearly articulated the reasons why they engaged in the new silent reading sessions. Choice, control, and opportunities to collaborate in reading were important enabling conditions that supported their engagement. Their accounts corroborated that they held unique knowledge about ways to improve their reading and prepared to work with Naomi and others to make reading enjoyable and engaging in the class.

Opportunity to Read: Student Voice as Engagement Enabler

Student voice is a unique engagement facilitator, an inherent social structure which hinges on interactions between students and the teacher. The case study above shows that using student voice to develop engaging reading practices relies on teachers listening to students' views and perspectives about reading and engagement and finding ways to respond to them. Students in Naomi's class have shown that they hold unique knowledge and opinions about reading and strategies that can enhance their reading engagement, further supporting the notion that it is critical to listen to these young readers when searching for ways to improve reading and reading engagement (Mitra, 2006; Daniels, Kalkman, & McCombs, 2001; Pope, 2001). Students' responses and suggestions have provided Naomi with insights into (1) why students attempted to avoid reading during silent reading sessions and (2) what engaged reading looks like from the students' perspectives. Based on students' voices, engaged reading involved choice and control during the reading process, opportunities to share reading, and partnering with the teacher and peers during the change process. In this sense, student voice-driven change did not just initiate and invite student engagement but also sustained it through collaboration and partnership with teachers and their peers.

However, not all voice-seeking and sharing activities are equally engaging. The extent to which it is hinges on the types of responses and actions that students are expected to provide during the student voice change process. Table 5.1 shows this voice-engagement relationship based on the "pyramid of voice" framework (Mitra & Gross, 2009). When student voice is sought through a tokenistic approach, students' active engagement is discouraged as the teacher manipulates the way in which students' voices are sought and used. Students tend to engage passively

Table 5.1 The relationship between student voice and student and teacher engagement

Student voice	Key concepts	Student engagement	Teacher engagement
Tokenistic use of student voice	Manipulation and tokenism	Passive engagement; students play a passive role, complying to teachers' request for information; students usually do not understand clearly why their views are sought and for what purposes	Teachers seek students' input with no genuine intention to honor students' voices; use student input for purposes other than addressing students' needs; treat students as a source of information, reinforcing power imbalance
Being heard	Seeking and listening	Responsive engagement; students share their views, experiences, and preferences	Teachers seek and listen to students' views and experiences; teachers use students' voices to address educational issues and problems that matter to both parties, but may not necessarily honor students' input; treat students as a valuable source of information
Collaborating with teachers	Mutuality, collaboration, and participation	Active engagement; sharing of ideas and views; teacher-led changes; mutual trust and respect; students work with teachers to make change; collecting data and implementing solutions; carrying out change plans; developing partnership with teacher and peers	Teachers seek, listen, and honor students' input; develop effective ways to ensure collaboration; treat students as partners; respect and act on students' suggestions
Building capacity for leadership	Leadership, critique, and problem-solving	Active engagement for change; student-led changes; shared commitment to deepen democratic learning and living together; collaborate on action plan; inject student voice into decision-making; create student leadership positions	Teachers support students' leadership role; student-led decision-making; treat students as leaders

(Mitra & Gross, 2009). It is unlikely that students would feel willing to enthusiastically share their views. Nor would they be engaged cognitively in seeking solutions or making suggestions. Such an approach reinforces the power hierarchy and imbalance and will be likely to reinforce alienation between students and teachers (Quinn & Owen, 2014). Smyth, McInerney, and Fish (2013) warned that students' voices often are used to serve "performative imperatives of the system" (p. 309) rather than the needs and benefits of students.

When students' voices are heard, students are more likely to feel that they are respected which contributes positively to their self-esteem and sense of belonging (Rudduck & Flutter, 2004). Student engagement is promoted through teachers'

authentic listening to their personal experiences, preferences, and viewpoints. Engagement is supported as a result of teachers' genuine interest in students' experiences. At the level of collaboration, students feel empowered as they collaborate with teachers and their peers to find better ways to conduct meaningful activities in school that matter to both parties. A high level of engagement will be involved when students attempt to work with each other to share, evaluate, and weigh up different suggestions for improvement. Engagement at this level is promoted through collaboration and interaction underpinned by positioning students as collaborative partners (Rudduck, 2007). At the leadership level, students are expected to take the lead to challenge established practices and proposed different ways to improve them in school or other learning settings. This form of agentic engagement involves critical views and decision-making abilities. Students are given a high level of respect, autonomy, and power in order to successfully play a leadership role in the instigation of change (Mitra & Gross, 2009).

The case study in this chapter is illustrative of student voice change at the collaborative level. Naomi positioned students as partners to develop engaging reading practices. In this partnership, students shared their reading experiences, offered suggestions for improvement, and enacted the changes with Naomi and peers in the class. As a collaborator, Naomi initiated the voice-seeking process and responded to students' suggestions through a plan of change that she shared with students and gained their support to implement.

A notable point is teachers' increased engagement when collaborative and leadership forms of student voice are used (see Table 5.1 final column). In this case study, Naomi changed the way in which she interacted with students using strategies (forums, individual chats, observations, and collaborations) that acted to ease the tensions of power imbalance. In particular, endorsing students' suggestions for improvement boosted the spirit of collaboration in the class and instilled a sense of shared understanding in this reading community. Naomi's engagement with students became more personal and involved. Not only did she understand her students better, she addressed their needs and cared for their reading to an extent that Naomi had begun reading with them and made pedagogical decisions such as allowing students extra time to share reading that prioritized students' needs, interests, and benefits. Student voice-enabled change in this case, leading to stimulated and sustained engagement for both the teacher and her students, alongside the development of a sense of ownership of learning for both parties, as reading, and engagement in reading, had become more meaningful (cf. Baroutsis, McGregor, & Mills, 2016).

The student voice process as a social structure has created a workspace where the teacher and his/her students can collaborate to develop new practices for valued educational activities. In the current case, reading engagement, though considered problematic for many students at the beginning stage of the change, was not taken as an individual's issue; students' deficiencies in reading skills, motivation, and/or achievement were not the focal point of conversation during the change process involving Naomi and her students. In conversing with her students, Naomi subtly sent the message that she cared for them and intended to build a new reading environment where these once-disengaged readers could engage willingly in reading. In

doing so, Naomi admitted that she had the responsibility for improving the reading environment. Accepting professional responsibility is an important point of departure for effective use of student voice to promote student engagement. Our case study illustrated this important point as Naomi began the change process with a sense of guilt, admitting that she had failed to support her students in silent reading. Thus, student voice-enabled change is not just about seeking, listening, and responding to students' views but also about how the teacher understands and enacts his/her professional responsibilities.

Conclusion

Creating opportunities for disadvantaged students to read is critical to sustain not just reading engagement but also engaging in future schoolwork and employment, as high levels of literacy skills are foundational to sustained academic, civic, and economic participation in knowledge economies. In the current culture of performativity where the focus is on achievement and scores, student voice has generally been ignored and perhaps, in most cases, silenced. Students, especially those who have not been performing well in literacy tests, are considered educational objects that teachers need to "work on" in order to narrow the literacy gap and, hence, excluding these students from the process of decision-making, central to their sustained engagement in literacy learning.

In this chapter, we put forward an argument that seeking, acknowledging, and responding to students' voices in improving classroom reading practices are critical for creating genuine reading opportunities that engage disadvantaged students and re-engage those who find reading in school uninteresting. This participatory process does not just enable teachers to understand disadvantaged students' needs and partner with them in improving reading practices; it also empowers students and advances their agentic engagement in reading that builds on choice, control, and sharing. From a student voice perspective, disadvantaged students are not a problematic educational object that requires teachers alone to act as fixers. Instead, they are important classroom partners who have the right to voice their concerns and should be allowed to play legitimate roles in the instructional process. Obviously, this participatory process itself is engaging for both students and teachers, with the resulting changes in practice successful in the promotion and maintenance of reading engagement.

Student voices can be used as an engagement enabler to create opportunities for reading in disadvantaged classrooms. However, teachers and educators should also be warned that student voices can be manipulated; tokenistic treatment of student voices will discourage participation and engagement (Fielding, 2004). Treating student voice as a singular, consistent, and unchangeable entity is conceptually flawed (Cook-Sather, 2006). Also significant is the recognition of complex power relationships embedded in each voicing relationship and whether these voices are being heard in the class, among students between students and teachers or between

children and other adult carers. Trust, respect, and care are foundational to the genuine invitation of student voice to improve reading and reading engagement. Naomi has shown us how reading practices can be reformed by seeking and acting on students' voices in the collaborative process supported through her trust, respect, and care for her students. Accepting teachers' professional responsibility to promote reading and reading engagement is an important starting point in voice-seeking and voice-responding journey for re-engaging students to read with joy.

Chapter 6
"Opportunity to Aspire": Promoting Mathematics Engagement and Aspiration for Challenging Mathematics

In many OECD countries, including Australia, attention is required to examine and solve the problem of low levels of engagement in and aspiration for advanced mathematics among students coming from economically disadvantaged backgrounds (Frenzel, Goetz, Pekrun, & Watt, 2010; Nagy et al., 2010; Noyes, Wake, & Drake, 2011). Not only are students from disadvantaged backgrounds in Australia overrepresented among those who fail to meet the benchmark in national and international tests of school mathematics; they are also underrepresented in mathematics-related degree programs at the university level. Few from disadvantaged groups have shown sustained aspirations for learning mathematics (Barrington, 2013; Kennedy, Lyons, & Quinn, 2014). It is, therefore, important to understand what motivates and sustains disadvantaged students' aspirations and engagement in mathematics. Unlike disadvantaged students who find mathematics difficult, capable students like Peter should be given enhanced opportunities to learn mathematics to achieve their personal potential. As a first step, it is important to understand this specific group of students' learning experiences in mathematics. Peter was a participant in a longitudinal project that was designed for this purpose.

Case Vignette: A Lack of Challenge in Mathematics Learning
Peter (pseudonym) was a Year 8 student. Peter's father was a concreter and his mother worked at a local supermarket. Neither parent had a university qualification and neither expected Peter to do well academically. But Peter's father had indicated to him that he would not want Peter to work as a concreter. At school, Peter was an achieving student and continued to get good grades in mathematics. He had a friend who inspired and helped him with mathematics. He also had a group of schoolmates who regularly worked together to complete assignments and homework after school. At this point, Peter wanted to

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(continued)
be a writer, though he considered mathematics important and had been enjoying it. He was unsure whether he would select advanced mathematics (i.e., Math B and/or Math C) in senior high school. He said, "I might if I keep going with the grades that I'm getting."

In addition to interviewing Peter, we had him, along with other selected students in low SES schools, to see how they engaged in mathematics lessons. The following excerpt was taken from one of the lessons we observed where Peter felt frustrated as he was not given the chance to participate.

> Mrs. Green finished writing questions on the whiteboard and checked if students were working on answering the questions. She deliberately chose Emma to answer the first question as she was not paying attention. She did so and was right. Mrs. Green then read out each of the three questions and asked students to answer or show their working-out to the class. All in the class were eager to respond; some students called out their answers and some volunteered to show their 'working-out' that had got them to a solution. Peter had his hand raised every time a question was asked and was eager to contribute. However, Mrs. Green did not select him. He Peter was frustrated and said several times 'Can I do one?'. Mrs. Green did not respond to Peter but asked Janet who sat at the back to work out her answer to the final question which was an algebraic equation (If $x = -2$, what is the value $5 \times -5 + 10$) in front of the class as Janet had been chatting. Peter was disappointed and began to flip through his own book aimlessly and stared out of the window while Janet worked out the answer. There were quiet chatters in several tables about ways to solve the algebraic equation that Janet was working on. Obviously, this one was not as simple as the previous few.

A detailed record of this lesson is provided later in the chapter. What the excerpt shows is that Peter initially was engaged in the mathematics lesson and eager to participate. However, he was not given opportunity to show his work. Although the teacher did call on to Peter to solve a difficult math question later in the lesson, his engagement was confined to mathematics problems that he had already known. Due to a lack of challenge, it was doubtful that Peter's aspiration for mathematics could be supported.

We followed Peter for 3 years. During this period, he remained an engaged student in mathematics and received good grades at the end of each academic year. However, opportunity for him to learn challenging mathematics in his math lessons had been limited. Despite his high achievement, he decided not to choose advanced mathematics streams for his senior studies. This was a significant decision as it meant that Peter would not take a mathematics-related degree program at university.

Introduction

Past research on mathematics motivation and engagement has highlighted important cognitive enablers, such as students' self-efficacy and interest, for supporting students' aspirations for and engagement in learning mathematics (McPhan,

Morony, Pegg, Cooksey, & Lynch, 2008; Frenzel et al., 2010). Relatively limited research has attempted to link students' aspirations and engagement in mathematics with classroom practices. This is significant because if aspirations for advanced mathematics of students from disadvantaged backgrounds, especially those who are capable, are to be nurtured, they need a supportive learning environment where learning opportunities are created continuously to engage them in mathematics learning. It is unfair and unprofessional for mathematics teachers to rely solely on students' personal resilience to sustain their engagement in, and aspiration for, mathematics. The research project in which Peter participated was designed deliberately to shift the focus from individual resilience to classroom support.

In this chapter, interview and observation findings derived from a longitudinal project funded by the Australian Research Council will be discussed. The important consideration here is that students' academic aspiration, though intricately related to motivational enablers such as self-efficacy and interest, needs classroom support and opportunities for students to engage in challenging tasks if it is to be recognized and sustained. Our observation data show that Peter and other capable disadvantaged students were engaged behaviorally in their lessons, showing high levels of concentration and compliance with classroom rules. However, their engagement in mathematics may not be sufficient to maintain their aspirations to do coursework with more challenging mathematics due to low teaching quality and unchallenging tasks that prevent deep engagement in their current mathematics studies. We argue that opportunity to aspire requires teachers to provide students with learning opportunities that challenge them and support their aspirations. Otherwise, the chance for them to maintain aspirations commensurate with their current achievement levels may wane.

Mathematics Aspiration and Deep Engagement

Aspirations are "values and beliefs regarding future plans" (Khattab, 2015, p. 733). Students' academic aspiration for mathematics refers to future goals that form part of their academic study plans. Aspiration is distinguished from expectation because the latter points to likely outcomes, and in the case of mathematics, these are outcomes that students expect they will achieve in mathematics, whereas aspiration is more about what they hope to happen in relation to their mathematics achievement. Academic aspiration is important because it predicts important academic outcomes against trajectories of valuing and belief. Mathematics aspirations as future goals can be variously represented, for example, in specific grades that one wants to achieve, mathematics topics that one hopes to master, or specific mathematics subjects that one intends to engage with in the future. In this project, mathematics aspiration is understood in terms of whether students in Year 8 wish to enroll in advanced mathematics in senior high school (Years 11–12). Behind the contention of positive relation between the two conditions is the presumption that students who hold strong aspirations in mathematics are more likely to select advanced mathematics streams for their senior secondary studies (Meece, Wigfield, & Eccles, 1990;

Viljaranta, Nurmi, Aunola, & Salmela-Aro, 2009; Watt, 2006). This makes students' subject choice a good indicator of their academic aspiration.

Obviously, students need to be interested in mathematics and confident that they will do well when setting future goals in learning higher mathematics and holding to strong academic aspiration in this content area. They also need awareness and skills to focus on learning, to set increasingly higher goals for learning and achievement, and to take on challenges willingly, readily, and with a critical mind. In short, they need to be deeply engaged in learning mathematics in order to strengthen their mathematics aspirations and commitment to studying advanced mathematics.

Deep engagement in mathematics is a critical pathway for predicting, promoting, and sustaining mathematics aspirations. Concentration and effort expenditure are important indicators of engagement, but these behavioral characteristics alone are insufficient description of deep engagement. Deep engagement signifies a learner's commitment to develop thorough understanding and mastery of knowledge in a specific subject or domain. Those students who are deeply engaged are motivated to master challenging knowledge. Emotionally, they feel excited, especially when they are presented with opportunity and encouragement to learn advanced knowledge and skills. Engaging at a deep level requires careful monitoring and regulation to learn from mistakes, monitor progress, and explore new frontiers of one's knowledge.

The research on academic enablers critical for deep engagement in mathematics will be reviewed to establish an empirical foundation for understanding cognitive enablers that promote deep mathematics engagement. These enablers are significant individual capabilities and are critical for supporting aspirations for mathematics. However, our point of departure in this project was not whether capable disadvantaged students have, or do not have, these cognitive enablers to sustain deep engagement and aspirations. Rather, the focal point of interest is whether their classroom experiences support these cognitive enablers to a point that empowers students' deep engagement and subsequently facilitates the development of strong aspirations for learning advanced mathematics.

Mathematics Engagement and Academic Enablers

Mathematics engagement has attracted research attention given its close relation with mathematics learning, understanding, and achievement (Thomson, De Bortoli, & Buckley, 2013). Students who are engaged in their mathematics learning are able to learn more effectively, employ appropriate strategies, and often do well in examinations and tests. Mathematics engagement has been researched using multiple sociocognitive perspectives involving motivational constructs such as self-efficacy, mastery goals, autonomy support, and intrinsic motivation. In the brief review of these motivational constructs that follows, key concepts are identified and empirical results revealed that show how each of these motivational constructs facilitates engagement generally and engagement in mathematics, specifically. For the sake of clarity, the following section has specific information from these different areas.

There has been a call to integrate these different perspectives (Eccles & Wigfield, 2002), with increasing empirical research having been designed to incorporate these motivational constructs into a coherent framework for investigative studies.

Achievement Goals

As discussed in Chap. 2, achievement goals are students' perceived cognitive purposes that define why, and how, students engage in learning (Ames, 1992). Over the past several decades, a wealth of studies has examined the motivational effects of mastery and performance goals, including both approaching and avoidance orientations (e.g., Senko, Hulleman, & Harackiewicz, 2011). We have provided in Chap. 2 a brief review of research on achievement goals and their effects on engagement, learning, and achievement. In the context of motivating students to learn mathematics, there were studies that found mastery goals correlated positively with students' effort expenditure in mathematics learning (e.g., Chouinard, Karsenti, & Roy, 2007), their valuing of and interest in mathematics (e.g., Lau & Nie, 2008), and their self-efficacy beliefs and achievement levels in mathematics (e.g., Bong, 2001). In addition, Pantziara and Philippou (2015) found that mastery and performance-approach goals had positive independent effects on students' interest in learning mathematics. Bong's study of Korean students (Bong, 2001) provided longitudinal evidence that both types of goals were related to the valuing of mathematics and students' mathematics self-efficacy. However, there are studies where negative effects of performance-approach goals have been reported. For example, Linnenbrink (2005) found that primary students' performance-approach goals were positively related to test anxiety in mathematics. Middleton, Kaplan, and Midgley (2004) found that students who held performance-approach goals were more likely to adopt performance-avoidance goals during the transition into middle school.

Nevertheless, recent studies have shown that endorsing multiple goals, i.e., mastery and performance-approach goals, is beneficial to learning (for a review, see Senko et al., 2011). Aligned with this line of research, Ng (2016) found that students who held multiple goals, in this case mastery and prosocial goals, used more deep and regulatory strategies to learn mathematics and held strong aspirations for better grades.

Self-Efficacy

Self-efficacy is "people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances" (Bandura, 1986, p. 391). "Can I do it?" is the question that self-efficacy addresses (Skaalvik, 1997a, 1997b). In Chap. 2, we have stated that students' self-efficacy is one of the important cognitive facilitators that promotes learning engagement. In the context

of mathematics learning, students' self-efficacy beliefs are critical for promoting and sustaining mathematics engagement and achievement. Self-efficacy is associated with effort expenditure, intrinsic motivation, persistence, and perseverance in completing challenging tasks such as problem-solving (Pajares & Miller, 1994; Pajares & Graham, 1999; Skaalvik, Federici, & Klassen, 2015; Zeldin & Pajares, 2000). Students who feel efficacious in mathematics learning are more willing to ask for help (Ryan & Pintrich, 1997) and regulate their achievement behaviors (Lee, Lee, & Bong, 2014). Among minority and disadvantaged students, strong self-efficacy in mathematics is associated with higher levels of academic resilience (Borman & Overman, 2004). Expectedly, a well-established influence of self-efficacy is mathematics achievement (e.g., Phan, 2012; Stankov, Lee, Luo, & Hogan, 2012). In a recent study, mathematics self-efficacy was a significant predictor of students' long-term achievement outcomes related to university entry (Parker, Marsh, Ciarrochi, Marshall, & Abduljabbar, 2014). To establish the causal relationship between self-efficacy and achievement, Pajares and Schunk (2001) reviewed evidence drawn from longitudinal and experimental studies, finding support for the claim that students' mathematics self-efficacy leads to achievement.

Self-efficacy in mathematics is also important for social engagement in forms of collaboration and working with others. Patrick and colleagues found that mathematics self-efficacy was related to students' judgment of their abilities to relate to their peers (Patrick, Ryan, & Kaplan, 2007). In terms of social relationships, Martin and Rimm-Kaufman (2015) found that primary students' mathematics self-efficacy related positively to their prosocial behaviors including collaborating with peers, sharing ideas, and helping each other in mathematics lessons. A strong sense of self-efficacy guards against disengagement in mathematics while increasing future learning intentions (Martin, Anderson, Bobis, Way, & Vellar, 2012).

Expectation of Success and Valuing

According to expectancy-value theories (e.g., Eccles & Wigfield, 2002), two significant sets of beliefs—expectancy of success and subjective task values—affect students' engagement and achievement (Balfanz, Herzog, & Mac Iver, 2007; Eccles, Wigfield, & Schiefele, 1998; Pintrich & Schrauben, 1992). Expectancy of success refers to students' perceived chance of success in learning a specific subject or task. Students who expect that they can be successful in a specific learning moment are likely to engage, persist, and use deep strategies, which eventually leads to higher levels of academic achievement (Eccles & Wigfield, 2002; Wigfield & Eccles, 2000). Subjective task value refers to interest (intrinsic value) and perceived importance and usefulness (utility value) derived from engaging in learning a specific subject. Students value a specific task or learning activity when they find it interesting, useful, or important for attaining personal goals, whether it is for achieving well, pleasing a parent, or entering a specific university degree program. Often, the value of a task is mediated by perceived costs of committing oneself to it, which can

include costs derived from psychological, economic, and social conditions. Students' task values are associated with their performances (Pintrich, 1999). Research also shows that subject-specific task values, measured in terms of students' perceived interest and ascribed importance about an academic subject, predict their enrolment decisions and career plans (e.g., Viljaranta, Nurmi, et al., 2009; Watt, 2006).

In the context of mathematics learning, cross-sectional research shows that students' perceptions of the usefulness of mathematics and their interest in it (e.g., Ma, 1997; Singh, Granville, & Dika, 2002; Utsumi & Mendes, 2000) are associated with high performance in mathematics. Longitudinal studies such as Aunola, Leskinen, and Nurmi (2006) have provided empirical evidence supporting the reciprocal relationship between interest in mathematics and high levels of achievement. An experimental study by Hulleman, Godes, Hendricks, and Harackiewicz (2010) has shown that enhancing students' utility value by requesting them to generate connections between mathematics learning and real-life experiences improved their performance and interest in the subject.

Students' valuing of mathematics increases their time spent on learning mathematics (Singh et al., 2002). Valuing was found to be predictive of their future intentions and decisions to take on additional learning in mathematics (e.g., Meece et al., 1990). Enhancing parents' utility values in mathematics and science will also motivate adolescents to take these subjects (Rozek, Hyde, Svoboda, Hulleman, & Harackiewicz, 2015). In addition, valuing mathematics will lead to developing subject-based identities or self-schemas (Ng, 2005). Once formed, such positive identities will be associated with engagement orientations and strategies that promote and reinforce such an identity. Ng (2014) provided longitudinal evidence that there is a close relationship between engagement patterns and mathematical identities.

Valuing of mathematics is significant especially when students are required to complete uninteresting and/or tedious tasks. A valuing frame of mind provides students with a broader motivational frame to energize them to complete learning that otherwise may not have interested them. In this sense, valuing mathematics protects students from disengagement (Martin et al., 2012). However, a wealth of research evidence has indicated students' valuing of mathematics learning tends to decline when they transition to middle school (Wigfield, Eccles, Mac Iver, Reuman, & Midgley, 1991). For example, Watt (2004) found that Australian students' perceived utility value of mathematics weakened through Grades 7 to 11. Likewise, Chouinard and Roy (2008) found a similar trend of decline among Canadian students in Grades 9 and 11. In relation to students' interest in mathematics, Frenzel et al. (2010) found a similar regression in German students' interest (intrinsic value) in mathematics from Grades 5 to 9. This can be related to students' improved understanding of evaluative feedback on their performance and an increased focus on competition and evaluation that students experience during the transition (Wigfield & Eccles, 2002).

Autonomy, Interest, and Intrinsic Motivation

Autonomy motivates human behaviors and actions as a result of agency, choice, and ownership. Students who are autonomously motivated are more concentrated during lessons, willing to expend effort and likely to get better results (Deci, Vallerand, Pelletier, & Ryan, 1991; Ntoumanis, 2005; Wong, Wiest, & Cusick, 2002). This is because these students engage in learning for their own interest and of their own volition, without external pressure and control. In the context of mathematics learning, autonomous motivation can be promoted by allowing students to choose select mathematics tasks to complete and ways in which they complete them (Assor, Kaplan, & Roth, 2002; Reeve & Jang, 2006). In this autonomous supportive environment, students' autonomous motivation thrives, which is found to be linked with the use of effort regulation strategies and better mathematics achievement (León, Núñez, & Liew, 2015). Autonomy support in school can also benefit out-of-school mathematics engagement and achievement. Hagger, Sultan, Hardcastle, and Chatzisarantis (2015) showed that autonomous motivation and perceived autonomy support in classroom learning are related to intentions to complete mathematics tasks in homework and homework grades.

Intrinsic motivation is a prototype of autonomous motivation (Ryan & Deci, 2002), which typically focuses students on interest, and leads to favorable learning outcomes (Krapp, 2005). Intrinsically motivated students engage in learning solely because of inherent interest in an activity. This is rather different from the case where students' engagement is derived from extrinsic motivation such as getting rewards or other motivations external to the task itself. According to self-determination theory, students are likely to be intrinsically motivated when their need for autonomy is satisfied. Intrinsic motivation also has been incorporated in flow theory describing students' state of absorption in a learning task (Csikszentmihalyi, 1990). It also has been integrated into mastery goals as part of the learning-focused process. Expectancy-value models have taken intrinsic motivation as one of the subjective task values. Thus, intrinsic motivation is a highly significant engagement enabler that has been incorporated in different theoretical models of motivation and learning (Ryan & Connell, 1989).

Intrinsic motivation in mathematics promotes cognitive, emotional, and behavioral engagement. Mathematics students who are intrinsically motivated tend to adopt mastery goals for learning mathematics and use deep strategies to improve understanding. They are interested in learning mathematics and are willing to spend more time on learning mathematics and enjoy these learning opportunities (Kiemer, Gröschner, Pehmer, & Seidel, 2015; Ng, 2014). When facing challenging tasks, they persist and use a variety of strategies to solve difficult problems (Meyer, Turner, & Spencer, 1997; Middleton & Spanias, 1999). In contrast, extrinsically motivated students engage in learning for external rewards, and therefore they do not have a strong sense of autonomy and ownership in mathematics learning (Middleton & Spanias, 1999).

Intrinsic motivation in mathematics is associated with mathematics achievement (Aunola et al., 2006; Lepper, Henderlong Corpus, & Iyengar, 2005; Viljaranta, Lerkkanen, Poikkeus, Aunola, & Nurmi, 2009). Some studies showed that it predicted mathematics achievement (Murayama, Pekrun, Lichtenfeld, & vom Hofe, 2013; Spinath, Spinath, Harlaar, & Plomin, 2006). In addition, studies have reported reciprocal relationship between intrinsic motivation and mathematics achievement (e.g., Aunola et al., 2006; Luo, Kovas, Haworth, & Plomin, 2011; Viljaranta, Lerkkanen, et al., 2009) though others failed to find such significant linkage (e.g., Marsh, Trautwein, Ludtke, Koller, & Baumert, 2005) and have queried the existence of any reciprocal relationship (Garon-Carrier et al., 2016). While the jury remains out at this point, the majority of research studies have affirmed the relationship between intrinsic motivation and mathematics achievement, and this is consistent with a landmark review of intrinsic motivation studies in the past four decades in different domains by Cerasoli, Nicklin, and Ford (2014).

Feedback Loops for Students Who Are Disadvantaged

Emerging from the aforementioned research is a strengthened view that cognitive enablers (mastery goals, self-efficacy, intrinsic motivation, expectancy of success, valuing, and self-regulation) facilitate engagement and achievement in mathematics learning both immediately and in the longer term. Studies of the reciprocal relationships between enablers, engagement, and/or achievement over time have provided firm empirical evidence attesting to the significance of cognitive enablers in facilitating engagement and achievement in mathematics. There is sufficient empirical support for the research-based argument that a feedback loop can be established across cognitive enablers, engagement, learning, and achievement. This loop commences when cognitive enablers facilitate engagement and its achievement outcomes follow. Subsequently, this strengthens the cognitive enablers. For example, students who feel successful will intensify their efficacy beliefs as a result of their success. Likewise, students who learn by setting and pursuing mastery goals will continue to do so as their success in achievements leads to strengthened adaptive learning experiences and better results. Students who feel autonomous and focus on their mathematics interest will have their senses of autonomy and intrinsic motivation strengthened after successfully completing challenging mathematics tasks and getting good results (e.g., Ma, 1997), thereby fortifying and enhancing the feedback loop.

However, the decline of engagement enablers with grade levels, and during middle years, suggests that many students fail to benefit from this feedback loop as a result of a range of constraining factors and conditions. From the perspective of struggling students, many of whom are from economically or culturally disadvantaged families, there are two immediate concerns. First, students who lack these cognitive enablers, or fail to use them, may be trapped in a feedback loop that is negative rather than positive, making it hard to continue to engage in mathematics learning.

Second, there are challenges for capable disadvantaged students who otherwise might have been able to employ the appropriate cognitive enablers. These include negative influences from their outside-school living environments, second-rate schooling resources, and/or a lack of quality mathematics teachers. In such circumstances, capable students from disadvantaged families may be deprived of opportunities to learn mathematics despite their interest in and valuing mathematics.

Capable Students from Disadvantaged Backgrounds: Are Classroom Supports Available to Advance Their Aspirations and Engagement in Mathematics?

Do disadvantaged students who are capable of achieving have opportunity to aspire to engage with challenging mathematics? Put differently, are disadvantaged students who have already developed proficient levels of mathematical knowledge and skills supported to step up by continuing their interest in mathematics at more challenging levels? The point of departure in this project was that these students from low SES families were able to take on challenging mathematics. They had records of sound achievement in mathematics, and their mathematics teachers rated them as performing well.

A selected group of Year 8 high-achieving students in mathematics ($N = 27$) from schools situated in high-poverty suburbs in Queensland were interviewed and observed. They had been nominated by their mathematics teachers as high achievers who had received either straight As or a combination of A and B grades in the two previous school terms. In addition, we used a bipolar scale to assist teachers to assess students' engagement characteristics. The bipolar scale required that they assess their nominees in terms of frequency of observed engagement/disengagement behaviors, levels of enjoyment and efficacy, purposes for learning, and willingness to take on mathematics. It was likely that these achieving students would aspire to continue their studies in advanced mathematics in senior secondary levels (Years 11 and 12). The justification for focusing on students who were achieving well was that this student group was comprised of young people who in the opinion of their teachers were positive about mathematics and their performances as mathematics students. The research interest in the group was to investigate cases of confirmation or disconfirmation of an expectation that these students would continue in their upward trajectories of aspiration, engagement, and achievement in mathematics.

The project followed these students for 3 years. At the time of writing, these students were in their final year of this longitudinal investigation. Each year, these students were interviewed and their mathematics classes observed. To answer the question about the extent to which these capable students were engaged in deep learning and whether such engagement was supported in their lessons, we used data derived from their first interview where students were asked to describe why they wanted to engage in mathematic learning. Middleton and Spanias (1999) describe

motivation as "reasons individuals have for behaving in a given manner in a given situation" (p. 66). Exploring students' reasons for behaving as mathematics learners and achievers is an important way to understand their motivation and engagement.

Reasons for Mathematics Engagement

This section reports the findings based on the first round of the interview with these students. The 20-min semi-structured interview focused on understanding students' voice regarding their learning mathematics experiences and, in particular, their reasons for learning mathematics. It also explored their likes and dislikes about the subject. Data analysis proceeded through the following steps:

1. Reading and rereading of a small sample of interview transcripts
2. Developing a coding system
3. Coding of sample transcripts and revising the coding system
4. Coding of all the transcripts using revised coding system
5. Merging of similar and related codes into analytical themes

During the analytical process, two trained research assistants individually completed an analytical step before comparing their results and working through any inconsistencies. At the final step of merging codes into themes, the inter-rater reliability was over 95%. In this chapter, we concentrated on students' reported reasons for learning mathematics, and the findings are described in the section below.

Students' reasons for learning mathematics were grouped into ten categories, viz., *instrumental goals*, *mastery goals*, *performance goals*, *compliance*, *importance*, *parental support*, *sibling support*, *teacher support*, *task*, and *no goal*. Summarized counts of students' responses in these ten categories of reasons are presented in Fig. 6.1.

The most frequently cited reasons for learning mathematics were instrumental, i.e., respondents' view that mathematics was useful or potentially so. In this category, students discussed the utility values of mathematics for their future career (no. of counts, $n = 18$), education ($n = 4$), university studies ($n = 6$), and everyday life ($n = 6$). Examples of students' responses in this category are:

- "Because it will help my future goals, the future jobs that I want to get. I think they involve math mostly" (career reason).
- "It helps you throughout your life and it gives you a better chance of being educated" (education reason).
- "I want to continue going in math because I would like to go to university once I leave school and hopefully become a doctor or a nurse. So, you need math for that" (university studies and career reasons).
- "I like learning about math because it's in so many things of our lives" (life relevance).

These examples show that students were focused on how useful mathematics would be for their prospective academic, work, and life engagements. For these high achievers, learning mathematics was not confined to the immediate purpose of

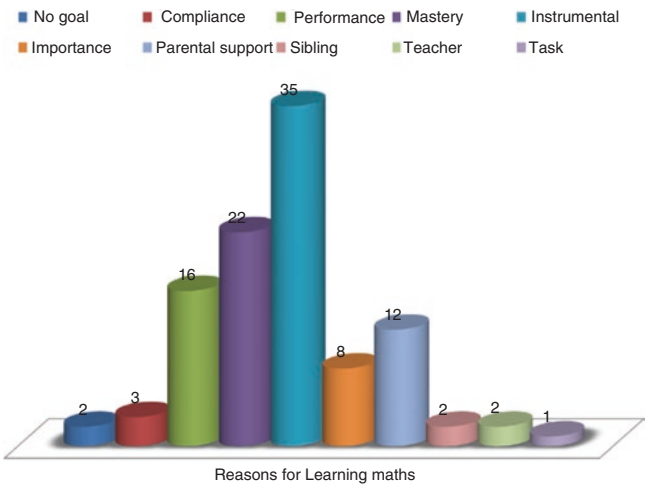

Fig. 6.1 Students' reasons for learning mathematics

fulfilling school requirements. They perceived that their mathematics learning would likely serve a variety of future purposes.

A second frequently cited set of reasons was that learning mathematics satisfied mastery goals. In this category, students talked about various forms of mastery considerations they had for learning mathematics. These included improving mathematical understanding (n = 12), taking on challenging tasks (n = 2), and enjoying learning mathematics (n = 8). Most students discussed the importance of improvement. For example, learning from mistakes was considered natural in the process of improvement. The interview excerpt below indicates this belief:

> Because it helps me more and if I get something wrong or fail an exam I'll know what to do after that and it will help me (Improvement reason)

Additionally, students talked quite extensively about their enjoyment for learning mathematics.

> It's just fun. It's the fun of it and it makes you learn a bit more which is exciting (Enjoyment)

In this excerpt, the student talked not only about enjoying but also about the motivational nature of enjoyment. When a task is enjoyable, students will be willing to spend time on it and therefore are more likely to learn more about it. There were, however, only two counts of descriptions related to accepting challenges. One student commented that his reason to learn mathematics was "to challenge myself and to learn more" (challenge). Taking on challenging tasks will promote learning and mastery.

Performance goals were the third most advanced consideration for learning mathematics. In this category, students discussed the importance of performance. They spoke about the significance of mathematics performance and explained why they wanted good grades. Their justifications included meeting job expectations

(n = 8), self-assurance (n = 7), and competition (n = 1). Surprisingly, competition was the least discussed consideration for learning mathematics. This may be because these students were achieving already and most were top students of their class. Instead of focusing on competition for performance, they were more concerned about their own well-being and how good grades would help them get future employment. Below are sample excerpts:

- "If you want to get a job, most jobs look at your mathematics grades and how you do in NAPLAN [Australian national test of literacy and numeracy]" (meeting job expectations).
- "Because I'm good at it and I understand stuff" (self-assurance).
- "In Grade 5 what kept me going was that—because I'm sort of really competitive and I was in the smartest group there" (competition).

A parental support category also emerged from the analysis. Typically, responses in this grouping (n = 6) reflected encouragement that parents had provided for their child's learning of mathematics. While most students talked about parents' support in the category, one mentioned parental encouragement in relation to building his future career as a pilot. He commented:

> Well, my parents encourage me to do math because they've been asking me what job, what occupation I want to do. I want to be a pilot and that involves math (Encouragement)

Meeting parental expectations was another important social reason for learning mathematics (N = 5). "They (parents) expect me to do it" (expectation) was a common response. Finally, one student (N = 1) talked specifically about how his father modeled the learning of mathematics by sharing with him stories of his own successful learning. The excerpt below shows this form of support from the parent and the son's positive response to it.

> Because like I find out my dad does it, and I like spending time with my dad, and my dad used to tell me stories about it when he used to do algebra. So, when I use it, I like it (Modelling).

Importance was another widely cited category (N = 8). This focal point of concern is why mathematics is important but without instrumentality statements of whether mathematics can be useful for a particular purpose. For example, one student commented "Because I think math is important and the more I learn the better it will be when I'm older."

The remaining five categories of reasons—compliance, no goal, teacher, sibling, and task—were mentioned by only one or two students. For example, one commented that provision of interesting tasks was the reason he wanted to learn mathematics. There were two counts of descriptions about social support received from teachers and siblings, respectively. Also, two counts regarding compliance and a lack of clear mathematics learning goals were recorded.

What motivates capable students from poor families to learn mathematics? A notable finding was that these students held different reasons or goals for learning mathematics. Only two students indicated that they had no reasons or goals. Endorsing a variety of goals for learning is beneficial because different goals provide different forms of motivation to support learning (Senko et al., 2011). In the

study sample, most capable students were motivated by reasons centering on instrumentality, mastery, performance, importance, and parental support. In particular, what participants seemed to have understood as utility values and importance of mathematics for academic, work, and other life considerations indicates that purpose is a recognizable element of their thinking about mathematics and its personal relevance. They also spoke of learning-focused considerations, such as wanting to improve, that drive them to master mathematics learning and understanding. In relation to performance considerations, the interview responses suggest that these students were less concerned about relative performance or competition than about using mathematics performance to assure their own achieving identities as well as meeting criteria such as fulfilling job expectations. In relation to motivation derived from social dimensions, these students focused on parental support and encouragement. It was surprising that little was said about their teachers or about how mathematics teachers had, and/or could, motivate them to learn mathematics.

In light of aspiration for taking on challenging mathematics in senior secondary levels, the interview findings provided qualitative evidence that students saw themselves driven for a variety of reasons to learn mathematics. Therefore, their learning motivation was derived from a variety of sources, providing foundation for their continuing engagement with this content domain. In predictive terms, they would elect to study advanced mathematics in senior secondary levels, and should this not eventuate, it would be for reasons other than positive motivational connection with the subject area.

An important question then is how might teachers capitalize on students' goals to sustain and reinforce students' learning engagement and aspiration through to their electing to study advanced mathematics. Significantly, students' data in the tracking study indicated they were focusing predominantly on the utility values of learning mathematics. This preference suggests that it may be important for teachers to explain why mathematics learning is useful, as well as demonstrating and exploring along with students in what ways students' cognizance that their learning has likely future relevance is realistic. Collaborative exploration might include investigation of what in future school and post-school studies and in career and employment planning might fit and extend the patterns of attraction that their students currently hold.

Parental support is an important source of motivation. Given the importance of this social dimension, teachers need to develop innovative ways to bring parental support into the learning process in order to tap the motivational support derived from this social source.

The influence of teachers may have been understated. Two interpretations are viable. First, these students might not consider their teachers' influence as an important reason for learning mathematics. This suggests that they had yet not experienced teachers who had made positive impact on their learning. An alternative interpretation is that teachers are still important, and their influence is implied when students mentioned that they intended to learn more, found mathematics fun, and wanted to get good grades. In this sense, teachers' influence is channeled through

curriculum planning, task design, and assessment. Both interpretations are tentative, and there is a need to observe the lessons to explore the extent to which their teachers are important for their mathematics engagement.

Taken together, the interview results indicated that capable students were seeing themselves, in most cases, as motivated in learning mathematics for its utility values. Mastery and performance considerations were important drivers for learning mathematics. Parental support was an important social reason for learning mathematics. Additionally, there was some recognition of the importance of mathematics as a subject matter for learning. Overall, students' interview results indicated that they had developed these reasons into cognitive enablers for deep engagement. They wanted to learn. And, they understood the importance of the subject matter in relation to their academic and career futures. Next, the question of the extent to which students' cognitive enablers were supported is outlined.

Mathematics Lessons and Observed Mathematics Engagement

To understand the extent to which these capable students were engaged in their mathematics lessons and the extent to which their engagement was supported, a suite of 10 lesson observations was conducted in their classes during the second semester, a total observation time of 700 min. Each lesson was observed by two trained research assistants who took notes independently. They also independently rated levels of behavioral engagement of the whole class and of the target students. Their lesson notes and ratings were compared and differences were resolved. Behavioral engagement was defined in terms of students' following instruction, their responses to their teacher, and their observed concentration. Table 6.1 is a summary of the observed lessons.

What Were These Lessons?

Ten lessons were observed in two schools that participants attended. These lessons covered several mathematics topics prescribed by national mathematics curriculum for Year 8 students, which included factorization, algebraic expressions, congruence, simple and multistep equations, and geometry. All lessons ran for 70 min and were quite consistent in terms of their structure, activity designs, and student participation. Teachers started the lesson with a rather substantial amount of time explaining main mathematics concepts, demonstrating steps involved in solving-related mathematics tasks, and showing how specific strategies could be applied. This was followed by a session of practice where students worked mostly individually to complete assigned tasks that were designed to reinforce their understanding

Table 6.1 Summary of observed lessons

Lesson no.	Lesson focus	Activities	Materials	Student participation	Selected students	Whole class
1	Simple step equations	Teacher explained key concepts; students solved assigned tasks; teacher provided support; students demonstrated their understanding in front of the class	Whiteboard; projector	Solving equations on whiteboard; creating tasks for peer	Engaged	Engaged
2	Simple equations	Teacher explanation; students followed demonstrated steps; completing practice; providing support; check students' understanding	Whiteboard and projector	Students volunteering answers and examples; opportunities to lead discussion; developing questions for peer	Engaged	Mostly engaged
3	Algebraic expression	Teacher-led question and answer; explanation of concept and strategies; teacher support for individual students; practice for NAPLAN	Whiteboard; worksheets	Offer answers to teachers' questions; completing worksheets; showing workout to the class	Engaged but occasionally disengaged	Engaged (but one disengaged student)
4	Multistep equations	Student doing mentals; teacher explanation; completing individual tasks	Whiteboard; worksheets	Completing individual tasks	Highly engaged	Engaged

(continued)

Table 6.1 (continued)

Lesson no.	Lesson focus	Activities	Materials	Student participation	Selected students	Whole class
5	Factorizing	Solving tasks; discussion of a concept; students explain concept to each other	Whiteboard	Completing assigned tasks; explaining the concept to each other	Engaged with occasional disengagement	Engaged, some disengaged students
6	Multistep equations	Follow teacher's explanation; complete task; creating tasks for peer; solving tasks individually; teacher provided individual support	Whiteboard; student-created tasks	Talk a lot but still engaged; talked once they finished task	Highly engaged	Engaged
7	Simple equation	Demonstration of strategies; provide support	Whiteboard; visual	Responding to questions; offering answers to math tasks	Engaged	Engaged
8	Congruent shapes	Teacher explanation	Projector; PowerPoint slides; quiz	Note-taking; drawing; solving a task; participating in a quiz	Engaged	Quite engaged
9	Revision: equations	Teacher read out test questions; students provided answers; students marked for each other	Practice paper	Completing a practice test	Engaged with occasional disengagement	Engaged
10	Simple triangles	Teacher explanation; teacher support	Whiteboard; projector	Students completed activities and an online test	Highly engaged	Engaged

of the concept and related mathematical procedures and applications. In short, all these lessons were teacher-led.

The role of students was to comply by listening closely to their teacher's explanation, following the steps, taking notes, and completing the assigned tasks. In several of the lessons, there was evidence that the teacher attempted to make the lesson more participatory by getting students to work out their answers on the whiteboard and designing questions for other students to complete. Nevertheless, the teacher remained in control throughout the lesson. The teacher's role was predominantly to explain the concept and demonstrate steps to apply relevant strategies and mathematical procedures. When it came the time where students worked individually on worksheets, the teacher would walk around and provide support to anyone needing help while monitoring the class to ensure on-task behaviors.

Interaction between the teacher and students was limited to question and answer during the time when the teachers explained the concept. More direct interactions between the teacher and students were observed when students were working on assigned tasks. With the exception of one lesson where students were required to design questions for their peer to complete, there was limited interaction between students on the content. By way of illustration, Box 6.1 shows the observation summary of a lesson. Let's revisit our observation of Peter that we introduced at the beginning of the chapter.

Box 6.1 Observed Lesson 3 (Pseudonyms Are Used)

Focus: Year 8 Algebra

Teacher: Mrs. Green

Targeted interviewee: Peter

Time: 1:20–2:30 p.m. (Tuesday)

Lesson 3 focused on algebraic expression equations. It was 1:20 p.m. The Year 8 students ($n = 20$) were settled into the class. Mrs. Green began the lesson with a question-and-answer exercise to remind students of what they had learnt in the previous lesson. Peter answered one of these questions and was praised by Mrs. Green. Following this, Mrs. Green wrote up, "Write an algebraic expression for the following: (1) Add a and 10; (2) The sum of x and y; (3) The product of x and y…" on the whiteboard and asked students to work on them. Peter got up and put something in the bin. He sat back down and stared out of the window, while Mrs. Green is finishing her writing.

Mrs. Green finished writing questions on the whiteboard and checked if students were working on answering them. Emma was not paying attention, so Mrs. Green deliberately chose her to answer the first question. She did so and was right. Mrs. Green then read out each of the three questions and asked students to answer or show their working to the class. All in the class were eager to respond; some called out their answers, and some volunteered to show the "working-out" that had got them to a solution.

(continued)

Box 6.1 (continued)

Peter had his hand raised every time a question was asked and was eager to contribute. However, Mrs. Green did not select him. He was frustrated and said several times "Can I do one?" Mrs. Green did not respond to Peter but asked Janet who sat at the back to work out her answer to the final question which was an algebraic equation (If $x = -2$, what is the value $5 \times -5 + 10$?) in front of the class as Janet had been chatting. Peter was disappointed and began to flip through his own book aimlessly and stared out of the window, while Janet worked out the answer. There were quiet chatters in several tables about ways to solve the algebraic equation that Janet was working on. Obviously, this one was not as simple as the previous few.

Noting Peter's frustration, Mrs. Green asked him to evaluate Janet's workout. He came to the board, looking proud, and read through the workout. He asked if he could work on a piece of paper before writing his own answer on the board. Mrs. Green agreed. After Peter had written his workout, Mrs. Green said to the class, "Yes, that's missing (pointing to the minus sign). Good job, Peter!" While Peter was walking back to his seat, John asked him if he had worked through this question before and wondered how he could figure it out. Peter replied "No!" Mrs. Green responded and made a comment, "It's because you guys don't revise at home. You don't practice." Peter smiled. Mrs. Green then explained every step to solve the question using Peter's workout. Mrs. Green reminded the class that "You don't get marks for the answer, you get marks for showing the working out." Peter did not pay much attention to Mrs. Green's explanation. He stared out of the window and looked at other students.

Mrs. Green continued her question-and-answer approach and wrote up another question. Peter raised his hand and asked if he could do it, but Mrs. Green selected another boy. Peter continued to stare out of the window, while other students showed their workout in front of the class. This continued for about 10 min. Waiting impatiently, Peter played with his pen and drew on his arm. A group of students sitting in the back corner were quietly talking and one of them laughed out. Mrs. Green responded and said she didn't want to hear any more laughs and reminded them to pay attention.

At 1:40, Mrs. Green distributed a worksheet to the class and told them that there would be another worksheet after they had completed the first one. The worksheet contained three parts—solving simple linear equations, simplifying algebraic expressions, and a problem-solving question with subparts requiring students to apply their algebraic knowledge and skills. Mrs. Green instructed the class to write their working-out in the book. Peter continued to stare out of the window idly, while Mrs. Green distributed the worksheet. Peter worked immediately on the worksheet and wrote the workout in his book. The noise levels increased, while students began to work on the worksheet. Mrs. Green raised her voice and reminded students to write in the book. She showed an

(continued)

Box 6.1 (continued)
example of how to write down the question and show the answer in the book. Peter did not pay much attention to Mrs. Green's demonstration. He worked diligently on the questions. When he noted that Mrs. Green had finished the demonstration, he raised his hand and asked about Question 3 and how to write it out. Instead of responding to Peter, Mrs. Green called for everyone's attention and showed them how to work with Question 3.

At 1:48, Mrs. Green sat down at her desk, satisfied that all her students were working. Students tried to help each other to work out the answers. There were some quiet talks between students regarding how to solve some of the questions. One student put his hand up and Mrs. Green went over to help. She then moved to work with a group who seemed to have some difficulties understanding some of the questions. John did not concentrate on his worksheet. He walked around and disturbed others. Mrs. Green told John to stop, and in response, John argued that he was just sharing. John continued his walk, ignoring Mrs. Green's instruction.

Peter worked quietly on his worksheet. He chatted with Ben who sat next to him and offered Ben assistance. Several students had problems with Question 6. Mrs. Green called the class to attention once again, put up several questions on the projector, and modeled how to work through Question 6. She continued her instruction responding to students' queries. Peter did not pay much attention and continued to work quietly.

At 2:00, Mrs. Green began to check the work of the class. She randomly selected and read out a question. Peter raised his hand and showed his workout on this question to the class. It was all correct and Mrs. Green praised him. Mrs. Green continued this process and asked another student to show his workout. Mary did not want to do the worksheet and had her head lying on the desk. Mrs. Green intervened, telling her to continue with her math. At this time, John was standing at the back of the classroom wearing his hat. Mrs. Green asked him to take his hat off. John did so but continued to walk aimlessly around the class. Peter was distracted a little bit. He looked up to check what had happened but quickly got back to his own work.

At about 2:10, three students congregated at Peter's desk. They were talking about how to solve a question. Peter offered his assistance. This happened, while Mrs. Green asked students for the answers to several other questions. Mrs. Green instructed the class to write down the next lot of questions which would be their homework and due the following Monday. Some students groaned. Mrs. Green began to hand out a new booklet, while students were copying down the questions. The class was quiet. Once finished, Mrs. Green sat down and announced that she was going to the EMM (*Elementary Math Mastery*), number 40. Many students, including Peter, groaned and said "No!" Peter seemed bored. He was drawing on his arm again.

(continued)

Box 6.1 (continued)

At 2:15, Mrs. Green began the EMM and reminded the class to concentrate. Mrs. Green read out Question 1 and projected it onto the screen (Find the sum of 2324 and 1212). She commented that this would help their NAPLAN (Australian national test on literacy and numeracy). Noises increased. Mrs. Green raised her voice and reminded students that there was to be no talking during EMM. She put Question 2 up (Subtract 1245 from 2555) and then Question 3 ($21 \times 34 + 630$). A student called out and asked what they should be doing. Mrs. Green replied that they should be writing down their answers. She continued to put up questions from the projector, while students were writing down their answers.

Playing with his pen in his mouth, Peter looked over at his friends. At the same time, Mrs. Green put up the next question (and talked through it). Peter stared outside the window again while playing pen in his mouth. By the time Mrs. Green finished reading out the questions, Peter looked briefly at the board and at Ben's book and quickly wrote down several answers.

The class was mostly quiet. John was standing near his group and talked quietly. Peter listened to Mrs. Green's reading out of the next question and then stared out of the window. He appeared not to require much processing time for answers. Once he had heard them, he answered very quickly and resumed either staring out the window and/or playing with pen in his mouth.

Mrs. Green continued to read out the questions and projected them on the board. Peter started to add extra details to the drawing on his arm in-between answering questions. It was 2:28. John called out that the bell had gone. Mrs. Green responded saying "No it didn't." John put his books in a pile and stood up. Mrs. Green noticed what John was doing and instructed that she had not told him to pack up. He said that he wasn't and he was just putting his books there like he was packing up. She kept talking through questions. Peter was looking at the board.

Mrs. Green announced that she had come to the last question (Q20) and told students to pack up after reading it out. She informed the class that they would be marking the EMM in the following lesson. Students returned the booklets to her, stacked their chairs, and got their bags. Peter was reminded to put his chair away, while he was tying his shoelace. The class left.

Was Peter Engaged? What About Interviewees in Other Observed Lessons?

As shown in Table 6.1, observers rated the capable interviewees, including Peter, in this project engaged for most of the time during the observed lessons. They were on-task during the lesson, taking notes and completing assigned work. When

opportunities arose to volunteer responses, or demonstrate their understanding to others, they participated promptly, positively, and willingly. They seldom needed teachers to redirect their attention. Some of them did talk with friends occasionally, but they maintained their attention and finished the assigned tasks and worksheets in a timely manner. It was noted also that many of these conversations were of an on-task nature, with students discussing the assigned questions and comparing answers.

As a typical case, Peter was quite engaged in the lesson. Behaviorally, he responded to Mrs. Green's questions and volunteered to show his workout to the class. He finished his worksheet diligently and helped his friends. He came up with answers quickly. Nevertheless, we also observed signs of disengagement in his moments of frustration, impatience, and idle staring. These happened when he was not selected to show his working-out, when he needed to wait for others to finish their tasks, and when he was required to do practice questions for the national test. During these times, he appeared to be bored; he looked out of the window, drew on his arm, and played with his pen.

Other students in the class were generally engaged with an exception of one who was off-task throughout most of the lesson. Students seemed to be more engaged when there was opportunity to show their working-out to the class on the white-board. There were times, however, when the class did not seem as interested, especially when all appeared to know the answers to questions. Also, the whole class groaned when the last activity was announced, requiring them to complete a practice NAPLAN question/s.

Reflection

Juxtaposing observational data and student voice data on reasons for engagement begs the question of whether lessons such as Mrs. Green's were engaging enough to create opportunities where students' participation and success would encourage their aspiration for ongoing involvement with mathematics at advanced levels. The short answer is that it was not. Both teacher and students were working through these lessons routinely. The structure was highly predictable, channeling teacher and students through specific roles in well-rehearsed procedures. Each time, the teacher explained a concept, while the students listened and followed instructions carefully. Classroom talk was limited to quick responses to questions Mrs. Green raised. There was no opportunity for in-depth discussion about a specific topic, inviting into the discourse inferential and elaborative connections to out-of-school life experiences or otherwise significant reflections for students. Students' "fund of knowledge" in relation to a specific topic was neither acknowledged nor elicited.

Yet, students were behaviorally engaged. They concentrated during the teacher's explanation of the concept and completed the assigned tasks accordingly. Compared to the interview data where students expressed their interest in learning and understanding related to mathematics and their desire to use it in future academic and

career endeavors, our observation was that these lessons had failed to address students' valued goals for learning mathematics. There was, perhaps, alignment between students' wanting to perform and the environmental focus on practice and answering questions posed by their teacher.

The opportunities that the teacher created for their students were sufficient only for them to develop a basic understanding of mathematical topics prescribed in the national curriculum albeit enabling them to meet minimum expectations in response to national testing. Our capable interviewees continued to receive good grades in school at the end of the academic year. However, their engagement, constrained as a result of unchallenging tasks and low-quality teaching, seems unlikely to be conducive to larger-picture advantages, such as maintaining their zeal for progressively challenging experiences in mathematics.

Creating Opportunities to Aspire for Challenging Mathematics

The qualitative results on mathematics engagement confirm that attention is required to look into disadvantaged students' classroom experiences. The levels and types of support that Peter and other students received were insufficient to empower deep engagement in mathematics to a stage that strong aspiration for challenging mathematics would be developed. This is a case of missed opportunity to assist capable students to achieve and aspire to their potential. Peter's case clearly showed that his engagement in mathematics was constrained.

The key question is how best to create learning opportunities for capable disadvantaged students to engage with meaningful learning and to promote their aspiration for challenging mathematics. Obviously, superficial engagement in the form of attentiveness, completion of worksheets, and answering of teachers' questions is inadequate for either purpose. Engagement that promotes aspiration requires a mastery-focused learning, interest in mathematics topics, self-efficacy for completing challenging tasks, and valuing of mathematics and related achievement. These cognitive enablers need to be supported through effective mathematics curriculum, including learning and teaching activities that are anchored in meaningful tasks that challenge capable students individually and collaboratively, to imagine, raise, discuss, and argue for creative solutions (Schoenfeld, 2014). The lessons that we have observed were substandard and far from a prototype for the deep engagement of students' interests and purposes. Capable disadvantaged students like Peter are likely to eventually disengage from learning, not because of inability but more likely as a result of uninteresting mathematics tasks, lack of challenge, and poor teaching quality. As the classroom observation report reveals, Peter had already shown his frustration several times when unable to participate in a task. He also showed signs of boredom when required to comply with the structure of the lesson and its implementation which mandated he wait for others to complete questions that posed no challenge at all for him. The type of teaching that Peter experienced

is similar to what Haberman (1991) had described as "pedagogy of poverty," a form of teacher-controlled instruction that confines students to basic learning and teaching routines targeting the development of compliance. "Essentially, it is a pedagogy in which learners can 'succeed' without becoming either involved or thoughtful" (Haberman, 1991, p. 292). They, like Peter, can succeed because they have already done so.

Deep engagement in mathematics occurs when students have the chance to go beyond basic training and routine practice. The nature of a task, its design in relation to level of difficulty and connection to the real world, stipulates the type of engagement that students need to display. As discussed previously, capable disadvantaged students need to be challenged with tasks where they can focus on improvement and learning; develop their sense of self-efficacy; promote autonomy and enable them to feel efficacious; consider their mathematics valuable, useful, and relevant to them now and for their future; and find them intrinsically motivated (Ng, 2014). It is only when such forms of deep engagement occur that students' aspirations for mathematics are likely to be enhanced, enabling them to see future enrolment in advanced levels of mathematics possible and natural.

The research on cognitive enablers has shown that teachers can manipulate their classroom arrangements to create an environment conducive to the promotion of enabling conditions. In Table 6.2, we provide a summary of possible ideas for redesigning classroom activities based on cognitive enablers. In particular, a mastery-oriented classroom using Ames' TARGET intervention can draw students' focus onto mastery and understanding (Ames, 1992). TARGET intervention focuses on six dimensions—designing tasks that are interesting, challenging, and relevant; supporting students' personal control in learning; recognizing their effort expenditure; facilitating interaction and collaboration through group work; evaluating students' progress and improvement; and allowing sufficient time. Mistakes and errors are taken as inherent parts of the learning process. Such classroom focus will reduce anxiety by lessening comparison and competition. Research over the past decade has shown that mastery structures are conducive to promoting students' mastery goals and that this links closely with their use of deep and regulatory strategies, persistence, and effort regulation (Senko et al., 2011).

Disadvantaged students are often given learning tasks that are repetitive, less challenging, or lacking applicability. This form of learning is typically underpinned by low levels of expectation from teachers and those held by students themselves. Expectedly, minimally challenging tasks do not facilitate the development of strong sense of self-efficacy for advanced mathematics. It is not surprising that disadvantaged students do not feel confident when they are asked to work on challenging mathematics tasks that require higher-order knowledge and skills as they have had limited opportunities to stretch their intellectual limits. To support students' self-efficacy in relation to handling challenging tasks, modeling effective strategies to monitor and complete these tasks is an important instructional step. In addition, Bandura (1997) maintained that self-efficacy can be promoted through personal successes (mastery experiences), witnessing others' successes (vicarious experiences), encouragement by others (social persuasions), and psychological arousal.

Table 6.2 Deep engagement for mathematics aspiration

Engagement focus	Mastery focus	Efficacy focus	Autonomy focus	Valuing focus
Key concepts	Challenge, interest, and improvement	Modeling, personal success, and strategies use and exploration	Student-led learning; choice, autonomy, intrinsic motivation	Task value; usefulness; future-oriented; connection
Key questions for developing engaging practices for deep engagement	Are math activities and learning tasks challenging, interesting, and connecting with the real world?	Do activities and learning tasks develop students' sense of self-efficacy and capabilities in using effective learning regulatory strategies?	Do activities and tasks offer students choices and options for engagement, approach, and pace for completion?	Are activities and tasks connected with personal backgrounds, involving significant social issues and real-world problems? Are activities and tasks considered worthwhile and useful?
Interviewees' reported reasons	Mastery reasons: Wanting to learn and understand	Performance reasons: Wanting to do well	Mastery reasons and supports from parents	Instrumental reasons: Relating to one's future
Theoretical support	Achievement goal theory: TARGET intervention (e.g., Ames, 1992)	Self-efficacy theory: Four sources of self-efficacy (e.g., Usher & Pajares, 2009)	Self-determination theory: Autonomy support (e.g., Reeve & Jang, 2006)	Expectancy-value models: Utility intervention (e.g., Harackiewicz et al., 2012)

Usher and Pajares (2009) provided empirical data supporting the significance of these sources. Among them, personal successes are the most significant and consistent predictor of self-efficacy. Schunk (1985) reported that allowing students to set their own goals facilitates personal success and promotes students' self-efficacy for mathematics.

Promoting students' autonomy and intrinsic motivation are important ways to sustain deep engagement. Research (e.g., Reeve & Jang, 2006) has drawn our attention to the positive effects that teachers' support for students' autonomy has upon learning engagement. This support can be provided by offering choices and options to students, strengthening their interest in a mathematics topic and encouraging their critical thinking (Assor et al., 2002; Reeve & Jang, 2006). From the perspective of self-determination theory, the provision of support for autonomy promotes learning engagement as it addresses students' basic psychological need for autonomy. It is then difficult for students to gain autonomy and interest if their experiences in mathematics require them to obediently follow the mathematical procedures and steps demonstrated by their teacher and to work blindly on practice questions to familiarize themselves with these routines. Intrinsic motivation as a prototype of

student autonomy thrives when students are able to work on activities and tasks that interest them, appeal to their curiosity, and invite creative solutions.

Valuing is a significant enabler, as our interviewees concurred. A majority of interviewees mentioned utility values of mathematics, including career development and academic pursuits, as important reasons for learning mathematics. Nevertheless, the lessons we observed did not return substantial evidence that the teachers used this engagement enabler frequently. There was limited discussion about the usefulness of mathematical knowledge and skills. In the absence of such value-related talks and discussions, mathematics knowledge is likely to be understood simply as a contained set of steps and procedures. Research by Harackiewicz and colleagues has experimented with innovative practice using utility values for promoting and sustaining deep engagement. For example, Harackiewicz, Rozek, Hulleman, and Hyde (2012) supported parents in learning to discuss with their children the importance of mathematics and science in high school by providing mailed and web-based resources. This research suggests the high status of talking with adolescent students about the significance of these subjects. When teachers translate valuing of mathematics into the modeling that they provide in their classroom practices and design mathematics tasks that invite students to relate them to their life experiences, learning mathematics and wanting to learn more and more of it are likely to be the worthwhile experience for students that theorists consider at the pinnacle of good practice (Sullivan, Clarke, & Clarke, 2009).

Taken together, the extant literature has established a firm empirical foundation from which to inform the development of engaging practices for promoting students' deep engagement in mathematics. There is no shortage of research-informed ideas for doing so. Actually, doing it depends on reform-minded mathematics teachers' initiative in seizing opportunities to challenge students to do more. Research (Aunola et al., 2006) shows that teachers who promote motivation as their principal pedagogical goal are likely to enhance students' valuing of, and engagement in, mathematics.

Conclusion

Sustaining capable students' engagement in mathematics is significant for correcting the underrepresentation of students from disadvantaged backgrounds in learning advanced mathematics. Peter's case showed that capable disadvantaged students were motivated to learn mathematics and that they had multiple reasons for wanting to learn. It is important for mathematics teachers to build on these diverse motivational sources and to develop pedagogical practices to sustain students' motivation to learn mathematics. Failing to do means that our mathematics education is ineffective in supporting students who are capable and motivated to take on advanced mathematics in senior years, despite the disadvantage of their life circumstances. The lesson derived from the observation results is that capable disadvantaged students' engagement will be constrained by the type of lesson activities and tasks that

are presented. Activities and tasks that are uninteresting and unchallenging and have limited relevance to future plans do not facilitate deep engagement, can be completed with limited intellectual involvement, and are at the poorest end of teaching effectiveness.

In summary, in this chapter we have shifted the focus of explanation for students' declining participation in advanced mathematics from cognitive deficiency to the ongoing levels of support for academic aspiration afforded to students within their classroom contexts' opportunities. If capable students from disadvantaged backgrounds appear to lack sustained aspiration for advanced mathematics, the first point of redress is to broaden the quality and extent to which their aspiration is being supported.

Chapter 7
"Opportunity to Flourish": Reconnecting Pedagogy for Youths Out-of-School and Out-of-Work

Children and young people engage in learning events, activities, and enterprises at various strengths of involvement and for varying periods of time. This stretches our thinking about engagement to a range of contexts well beyond standard classroom applications which has been a clear focus of previous chapters. What we know from those classroom applications is that both accessible opportunities to engage, and acting on those opportunities, are key elements to facilitating engagement.

In our coverage of educational contexts, we have considered engagement in two ways—first, in overarching terms as one's behavioral, cognitive, and affective connection with the diversity of opportunities accessible in schooling and second, with more specific focus through one's vigor, absorption, and dedication to study, work, and play. Both views predict academic success for those who engage well. Additionally, they predict fruitful post-school transitions into employment, career, health, and well-being (Pinquart, Juang, & Silbereisen, 2003). They also negatively associate with indicators of students' aberrant social behaviors (Malecki & Elliott, 2002) and ill-being, such as depressive symptoms and burnout (Tuominen-Soini, Salmela-Aro, & Niemivirta, 2012; Upadyaya & Salmela-Aro, 2013).

This wide line of positive and negative interconnection reminds us that in the broadest sense, engagement is about social inclusion. Engaging well is good because the benefits described above flow over into agency, aspiration, goal-setting, decision-making, social esteem, well-being, and enhanced inclusion. People who were highly engaged as students, and were successful, are likely also to have been socially included during their student years. Also, as adults they are likely to sustain their potential for engagement and to be positively connected as active and valued members of families, friendship groups, clubs, religions, political parties, nations, and the like, and, generally affirmative about society and themselves.

Unsurprisingly, the reverse side of this picture is immediate and longer-term vulnerability associated with disengagement. A student's wavering study-related engagement, or lack of it, reduces academic success and may hamper the development of achievement-linked identity, efficacy, and esteem. Similar problematic engagement at

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the macro level puts at risk the participation and constructive connections students might otherwise have with the institutions of school and schooling and the accessibility these typically provide for personal and social growth and development. Both forms limit social networking and big-picture views of what the socially accepted norms of a school are and how they apply, and restrict accessibility to spaces, time, and success–opportunity dimensions of schooling to those prescribed by a student's compulsion to be there. The vulnerability stretches to social exclusion. Students with poor engagement records are susceptible to psychosocial distress (Upadyaya & Salmela-Aro, 2013), poor within-school and post-school transitions (Pinquart et al., 2003), and widely ranging exclusion as members of community, particularly where long-term unemployment is involved (Kieselbach, 2013). Vulnerability itself is stretched by social exclusion and by marginalization that impedes access to opportunities to engage with, and benefit from, connectedness with those otherwise well-positioned to promote the knowledge, skills, and attitudes of healthy and learnerly development.

Let's look at what can go wrong when connection in a broader sense has not worked so well during a young person's years of schooling—and what can be retrieved when "engagement" is at the heart of a second-chance reconnection.

Case Vignette: An Enterprising Recovery
(Based on data derived from an Australian Research Council-funded project)

Setting: Opportunity time in a social enterprise program

Situation: Michelle was a youth worker with qualification and experience in social work and Patrick's case counselor at OurTown, a nongovernment youth training center in Sydney, Australia, that provided crisis care and wrap-around services to young people in need. Michelle was on site to finalize a 3-month review of Patrick's progress as part of an OurTown social enterprise to reforest parkland on the outskirts of western Sydney. At her invitation, Patrick reflected on who he had been when he first arrived at OurTown.

Persons Focal student, Patrick; youth worker, Michelle

Involved: Patrick's group mates, Mick and Dori; youth trainer, Bondy; reading support teacher from technical and further education (TAFE), Mrs. Neubecker

Patrick: "Well, I wasn't much good, then. I've changed a lot. I'd been in and out of 'Juvie' (Juvenile Detention) since I was 12, more out of school than in it—I never wan'ed to be there, just wan'ed to leave. It was crap and I didn't stick it—and never really needed to hav'a real job when I left. My father and grandfather were on 'the dole' (a benefit paid by the Australian Federal Government to the unemployed), gettin' close to $500 per fortnight each. They'd been gettin' it for years. They even knew what 'the dole' meant—they'd said they'd looked it up on Google, but wouldn't ever tell me. I knew they wouldn't. But I know now. Anyway, I was happy that they took me when I turned 16 to get it, too. (Patrick had signed for the benefit using forged documents attesting to his eligibility for the Youth Allowance of $414 per fortnight, a matter now under investigation by

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the New South Wales (NSW) Police Service.) The 'Junior Dole,' they called it. So, I was 'on the dole,' too, then. Then, I got here."

Michelle: "What was it like—being on the dole?"

Patrick: "Good. It wasn't just getting money, though. Being on the dole meant fillin' out a form and doin' an interview at the Employment Office every month. They'd ask what was happenin' at work and at TAFE (Technical and Further Education—Australian institutions equivalent to the Community College system in the US) and how the apprentice thing was workin' and that. Doin' that had been my $400 a fortnight—a job, sorta'—that minus the hundred that my father and grandfather took for showin' me how to get it—and what to do to stay on it. I didn't mind. They'd faked the apprenticeship papers I had to have to get the allowance and I made just as much as the dole by shopliftin' and robbin' people—grabbin' old ladies' handbags, mostly. So, I was makin' more money than them anyway. I shouldn'a been doing that (shoplifting and robbery) I know, and I'd been caught three times when I was young. Then I got known and people were watchin' me wherever I went. They'd even found my cache (his drugs and what he'd kept from his shoplifting and robberies and had hidden in old trees at the back of his grandfather's house where he and his parents also lived). I was broke and knew they'd find out soon enough that I wasn't an apprentice, and that'd be the enda' the dole."

Michelle: "So you were desperate?"

Patrick: "Yeah. That's how I got here. It was gettin' harder to make a score and I'd be in adult prison next time they nabbed me. I couldn't read or write much, so there wasn't much point tryin' for a job. No one woulda' given me a job. People like me don't get past the door. So, yeah, I was desperate. I didn't know what to do. I didn't know nothin'. Mum had told me to go see the Salvos (Australian informal name for Salvation Army) and they brought me here—to OurTown, and Mum said ya were a mob like the Salvos—not government, just do-gooders."

"That was me. That was Day 1."

Michelle: "And what has happened since then?"

Patrick: "Well, I've finished the meth schedule and so far, so good. So, last month I started in the Greentrees program. Oh, and I'm waitin' to find out if I've gotta go to court for rookin' the government. The meth brought me down and I'm off the drugs now, I think, so that's good. And the lawyer you guys got for me said we are gonna' offer to the police to pay back the money I got for the dole and that ya can take it out of my Greentrees pay each week until it's done. So, we've got a plan."

Michelle: "That's good. Tell me about the best thing that's happened to you since you've been here."

Patrick: "It's all good. Maybe the best thing is I wanna' come here every day. Bondy (Youth Trainer) is terrific. He's like, like what every teacher shud be. We all like learnin' with him. Ya can come see if ya want."

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Michelle: "OK, I'd like to do that—but could you put into words what he does that is so good. Tell me."

Patrick: "Yeah, it's easy. Like he says, 'learnins' like a treasure hunt. Ya gotta have a map to find a treasure and the map's always in here (gesturing to his head). Ya got electricity in there that can turn anything on, so long as ya turn on the switch to make it work'. And he told us that the turned-on switch is what keeps yer concentratin' and it keeps yer goin' until ya get the thing done, no matter if it's as excitin' as when ya footy team wins or as borin' as watchin' the weather report."

> Every day he starts by remindin' us to 'turn on the switch' and we all get to say it out loud all through the day. Even when ya start to drift off, if he doesn't notice, then Mick or Dori (fellow youth participants in the enterprise) or one of them others will remind ya to 'turn yer switch back on'.
>
> And, he says when ya want to know something that ya don't know yet, or do something that ya can't do yet, be happy. Don't be embarrassed, cause everyone's a learner. Only smart people know it's OK to say ya don't know something.
>
> So, when I heard that I started bein' smart and askin' him questions about how to learn when ya not really any good at it, and, how to read words that ya don't know. And, he always says, 'Hm, that's interesting.' And then he tells me a little trick to try and shows me how he uses it. Or, he says he doesn't know, but he'll find out. And he does find out. Like when he went to ya, to get me into the reading support group on Tuesdays and Thursdays.

Michelle: "Yes, I remember and according to the records, you have been to every session and your test last week was a really good result."

Patrick: "Yeah, I know—ya' gotta' be there to learn, and, I'm onto *The Missing Coins* now. It's a book that only two of us in the group are up to. I still don't know every word, but I read on and that helps me guess. I started asking Mrs. Neubecker (the Reading Support Teacher from TAFE employed part-time by OurTown). She showed me how to write them on the computer and use 'Tools' to find out what they mean. Then she showed me to go to 'Google' and then 'Dictionary' as a second way. Oh, and I used that trick to look up, 'What is the dole?' Oh, and Bondy told me that instead of the trees where I us'ta put my treasures, I could use me head to put me new learnin' treasures. Me mates in the group are Dori and Mick. They like Bondy, too, because he really tries to understand what we us'ta be, and he doesn't like, tell us we're rubbish. He tries to find something we've done and uses that to show us how to be someone different, sorta. Dori says he's a magician!"

Michelle: "That is so good, Patrick and you are doing so well. Keep it going, mate. Let's go and see what's happening out in the shed in the Greentrees enterprise today so that I can see how Bondy works. Do you think I can just merge in without disturbing the things you all do?"

Patrick: "Yeah, but ya probably really don't need to after what I just told ya? Bondy just makes us see that we can make things happen. And we can. But, don't believe me, come on, let's go."

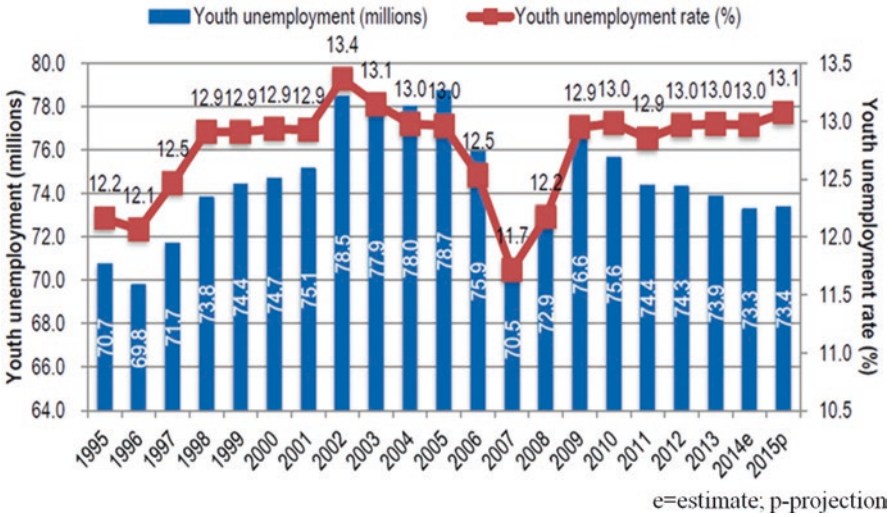

Fig. 7.1 Global youth unemployment 1999–2015 (Source: ILO, http://www.ilo.org/rome/risorse-informative/comunicati-stampa/WCMS_412014/lang--en/index.htm)

Reconnecting Socially Through Engagement

Reconnecting with socially disengaged youth who are out-of-school and out-of-work is a current imperative for many Western nations. Its urgency is associated with climbing unemployment rates among the young, worldwide (Fig. 7.1), and a related and hardening social disconnect that exacerbates young people's vulnerability at a key life stage when they are exploring their emerging identities and pathways of promise to ostensibly better futures (Brydsten, Hammarström, & San Sebastian, 2016; Eichhorst, Hinte, & Rinne, 2013). In its most recent report, the International Labour Organization (ILO) (2015) concluded, "despite a mild recovery in the 2012–2014 period, the youth unemployment rate remains well above its pre-crisis level. For millions of young people around the world finding a decent job is still a drawn-out uphill struggle" (para. 1). The ILO assessment was conducted prior to the 2015 acceleration of the Middle East migration to a European crisis point. Consequently, its projection is likely to understate the current worsening position, with over one million displaced persons in 2015 alone (BBC, 2016) searching for work in Europe.

The impost of war and associated displacement brings with it a related and hardening potential for social disconnect to many of those young people not yet included in the ILO data.Youth among the incoming migrant groups are caught up in social upheaval that includes interracial tensions among migrating groups and increasing uneasiness with some peoples of some host nations. The uncertainties of sustainable and accepted status as members of foreign communities and the loss of their historic places and faces limit both current and past access and participation in work,

schooling, friendship, and other familiar social groups. Such a culture of change and turmoil provides a backdrop for political radicalization where young migrant people who are desperate to find inclusion (Cochrane, 2015; Triandafyllidou, 2015) often do just that with just the wrong groups.

Even without such horrendous conditions, being unemployed and out-of-school in relatively stable politico-social contexts has weakened many young people's capacity and resolve for agentive and positive community contribution and exacerbated their vulnerability to social exclusion (Bartlett, 2016a, b; Schaar, 2015). For youth (15–24 years of age), this is happening at a key life-transition stage. For their wider communities, it has become an ongoing concern as communities rely on the participation of their young people to build the experience and acumen to sustain and improve existing standards of living.

Dynamic communities want youth to be participating and productive members of their active societies and seek out effective and lasting solutions that will address any connection problems impeding these objectives (Bartlett, Mafi, & Dalgleish, 2012). Youth who turn off their engagement button are susceptible to falling out of contact with home, family, and friends; to becoming overly reliant on social services; to stop looking for employment, further study, and training; and to come increasingly into contact with risky acquaintances, often invoking the intervention of police and the juvenile justice system.

Kieselbach's (2013, p. 19–20) notion of seven types of exclusion in adulthood allows us to depict in this susceptibility what can go wrong when connection in a broader sense has not worked so well. Specifically, chronically unemployed young people are open to marginalization because of a list of deleterious conditions and factors that may result in exclusion in different dimensions:

- Inadequate knowledge and basic qualifications restrict participation in continuing/higher education and training.
- A lack of academic success and wavering engagement hampers the development of academic identities and self-worth.
- A lack of intellectual know-how renders it difficult to seek and benefit from appropriate learning opportunities.
- Schools and teachers fail to provide appropriate support to meet their needs and address their concerns.
- Limited support on learning and academic development from parents, relatives, peers, and neighbors.
- Low levels of school readiness, underdeveloped personal skills, and holding cultural norms that are incompatible with school and classroom practices pose challenge to school and learning adjustments.
- A lack of community support and learning resources due to living high-poverty locations.

Being unemployed means people do not have jobs, tasks, workplaces, and colleagues on which to focus their own vitality, participation, and dedication. Exclusion such as Kieselbach (2013) highlighted dramatically lessens unemployed young people's access to employment opportunity. Further, it diminishes the potential they

have for engagement in its broader sense. They are not in the space to engage. Because of their exclusion, they have lesser behavioral, cognitive, and affective connection with the assortment of institutional, social, and cultural opportunities that may once have seemed accessible to support the location of, and participation in, work and further study. These disengaged young people so affected act in increasingly sparing ways to get jobs. Being trapped in the debilitatingly personal dynamics perpetuated by exclusion and disengagement, most young people begin to think in constrained ways about what might be possible and begin to devalue participation in work. As the ILO data tell us, this predicament is a malaise affecting youth at an alarming rate.

Negative effects of unemployment reach far beyond the personal consequences experienced by disengaged youth themselves, albeit that these are typically debilitating and often dire—including breakdown in agency and relationships (Dwyer, 2004; Henman, 2002), impediments to well-being, and repeated arrests and incarceration associated with high rates of offending. The heavy social and economic costs of supporting these youth reach to, and are borne by, community through loss of capacity in the community's workforce and expenses to be paid when such youth have no food or housing and no means of paying for health care and are at the far end of socially responsible behavior where their actions often associate with policing attention, court appearances, and jail. These costs are considerable. For example, recent Australian data from the Productivity Commission (January 2016) show costs to keep someone in an Australian prison averages $AUD 292 per day, with a cost to the nation in 2014–2015 of $AUD 3.7 billion, excluding capital expenses.

Such losses and costs spread across society, resulting in loss for all. Chronically unemployed youth suffer incapacity in relation to continuation of healthy and productive growth trajectories, and the community suffers from the social consequences of experiencing the disengagement of some of its youth and watching them slip well below their potential to contribute to the common good and in the costs of deploying resources to sustain these young citizens in the hope of their eventual retrieval, reconnection, and active participation.

Thus, young people's "turning off" with these types of consequences has festering disaffection with what society might otherwise see as traditional support structures (e.g., families, religions, clubs) (Bartlett et al., 2012). A complex cycle of deepening disengagement, chronic unemployment or underemployment, and continuing disconnection and vulnerability is prevalent among disadvantaged young people, notably those who are undereducated, Indigenous, in poverty, and/or with histories of dysfunctional family situations. Anlezark's (2011) classification (Table 7.1) from various analyses of the Longitudinal Surveys of Australian Youth and related research of factors of young people being "at risk" of poor schooling outcomes is pertinent. Each of the characteristics is a negative prediction of young people's productive engagement in, and beyond, schooling. However, Anlezark has distinguished those features that are exogenous and unchanging from those where prediction conceivably might be mediated with positive intervention in the interests of reestablishing connections, inclusion, and prospects for better futures.

Table 7.1 Characteristics of young people "at risk" of poor outcomes

Exogenous factors	Mediating factors
• Indigenous	• Poor attitudes to school
• Born in Australia	• Attend government school[a]
• Live outside metropolitan areas	• Poor student–teacher relationship
• Low academic achievers	• Dislike of school
• Low levels of literacy and numeracy • Low socioeconomic status • Parents work in blue-collar occupations • Parents without university education • Nonnuclear family	• Intention in Year 9 to leave school early • Poor student behavior • Lack of engagement with schools' extracurricular activities

[a]May also be an exogenous factor if limited school choices are available

One approach, aimed at breaking the cycle of disaffected youths' dysfunction and redressing any presumption of inevitable lifelong disengagement, gaining worldwide support is to involve them in social enterprise programs. These paid work programs are socially authentic and relevant—properties that present opportunities for youth to learn and form durable insights about what engagement means, what engaging in something needed by the community and themselves can do, and how genuine engagement enables them to build their skills and awareness into personally grounded, better futures. We argue that these insights form the basis for an engaging pedagogical orientation that many social enterprise programs adopt, advance, and promote. While such pedagogical orientation aligns with research on facilitators of engagement reviewed in Chap. 2, its point of departure is that it is future-oriented, focusses on desirable outcomes at both personal and community levels, and aims to target reconnection. The combination of these features enables these disaffected young people to network with communities within and beyond the social enterprise in order to promote their sense of inclusion, purposefulness, and relevance as their reconnection unfolds (Bartlett et al., 2012).

Social Enterprises

Social enterprise programs are usually operated by nongovernmental agencies, not-for-profit organizations, and community groups. Typically, this sector targets disadvantaged groups as its clients and is open to youths who are still looking for work and those who are referred from the juvenile justice system. The sector generally competes on the open market for community-benefit projects open to public tender. The organizations keep marginalized participants in the mainstream community where real, publicly visible work provides a context for workers, support staff, and the community to support re-engagement of once-disengaged youths and to make

positive differences in their current and aspirational lives. The work output is accountable at standards contractually established in the awarding of tenders. Projects also are publicly visible because of the community-need basis of the work. The inclusive culture synonymous with this form of adaptive learning is akin to that intended in mainstream-based schooling with differential support under inclusive education policy (McMaster, 2015; Mitchell, 2015).

Yourtown (Formerly BoysTown)

Renamed in 2016 to better represent its young female and male clients, Yourtown is one Australian organization that has offered a number of social enterprise programs to youth over the past decade. Its mission statement was and remains, "To enable young people, especially those who are marginalized and without voice, to improve their quality of life" (BoysTown, 2011).

The great majority of participants in the study (Bartlett et al., 2012)[1] reported here, and the majority of Yourtown's clients (BoysTown, 2011), have histories of unemployment, personal disregard, and social disaffection reflective of Kieselbach's (2013) typology of exclusion reported earlier. Yourtown's social enterprises have varied from local government contracts to remove graffiti, projects to rejuvenate home site gardens in low SES communities, developments in cultivating green tree spaces, and state government contracts for highway beautification to private sector construction. They share the following components:

- Paid work experience for participants in real-life yet supported environments
- Experiential learning on-the-job to improve vocational skills and, where possible, to provide credentialing
- Case management and group workshops to address personal development barriers

Staff at Yourtown see the induction component of youth's inclusion as an engagement opportunity. It is an opportune time and space to create an openness to their engagement with the organization generally, and with the social enterprise in particular. Their purpose in this intention is that youth will see both institution and social enterprise as a viable "third space" (Gutiérrez, Baquedano-López, & Tejeda, 1999; Moje et al., 2004), an engagement opportunity from which to start again. In essence, youth are able and more likely to create a new reality in this third space where they see its opportunities as different from their home and out-of-home experiences (including failed or negative workplace experiences) (first space) and in what had been their likely future (second space).

[1]The study Reconnecting Disaffected Youth through Successful Transition to Work (Bartlett, Project LP0776519) was supported by the Australian Research Council under its Linkage Project study support program.

The induction includes encouragement to try Yourtown as an alternative to what had not worked well before. It is a trust-building time and space. As one of Yourtown’s executive staff advised in an interview during the Bartlett et al. (2012) study, “We have to understand the reality of the situation and the construct of it. We need to understand their construct for understanding reality. We need to link this to the third space” (BTBA). Case study data indicated that youth seemed to see it this way, too:

> [It was] Good [the decision to come to Yourtown] because it doesn’t mean I’m on the streets (BTY109);
>
> Just to keep out of trouble [What I like about this], I get myself in enough trouble (BTY109).

Following youths’ induction and their engagement in the opportunity space, youth trainers lead the next section of opening access to specific engagement with activities that have authentic skill and knowledge-building properties. Youth trainers generally have trade skill personal history, and some have come from disadvantaged backgrounds similar to many of the young people in the group. All use hands-on approaches to introduce work skills of the area (e.g., horticulture; graffiti removal; green trees) and to guide youth in acquiring and refining these skills and building a work ethic. Learning engagement in this context is motivated by a mastery focus on knowledge and skills that disengaged young people consider useful for them and their community. Collaboration, assistance, and empathy create a safe and caring pedagogical environment where social engagement is supported, constantly shared, and encouraged.

Learning in a social enterprise activity setting is social with scaffolding to guide its operation and reinforcement provided by the youth trainers for successes however small. The youth trainers model, demonstrate, break jobs into doable tasks, and convince or cajole participants to get involved. One youth who was initially a reluctant participant in the Yourtown program noted,

> ... He’s taught us heaps of stuff to do. I’ve never used a concrete saw before and he’s—at first, I was, no, I don’t want to, I don’t want to, I don’t want to. He was, like, come on, just give it a go, watch me cut it. I watched him and then he gave me a go. So, he gave me confidence and that. Yeah, he’s tops. (Bartlett et al., 2012, BTY 130)

There was obvious perception and appreciation in the young participant’s reflection for the youth trainer’s mix of modeling and encouragement.

The conceptual model developed from accounts that Yourtown’s staff gave of their work positions Yourtown’s entire staff as people who were mindful of the diversity of their clientele and ready to listen and provide support, and, as advocates for their young clients. The focal points of support are shown in Fig. 7.2. Advocacy through them provides a principled pedagogical environment guiding how staff interact with once-disengaged adolescents. As expected, there was a strong push by staff to recognize and meet students’ needs and progress those actions into building connections and collaboration across the collective.

Bartlett et al.’s (2012) study tracked 542 young people starting, about to start or currently participating in, a social enterprise or related work transition program

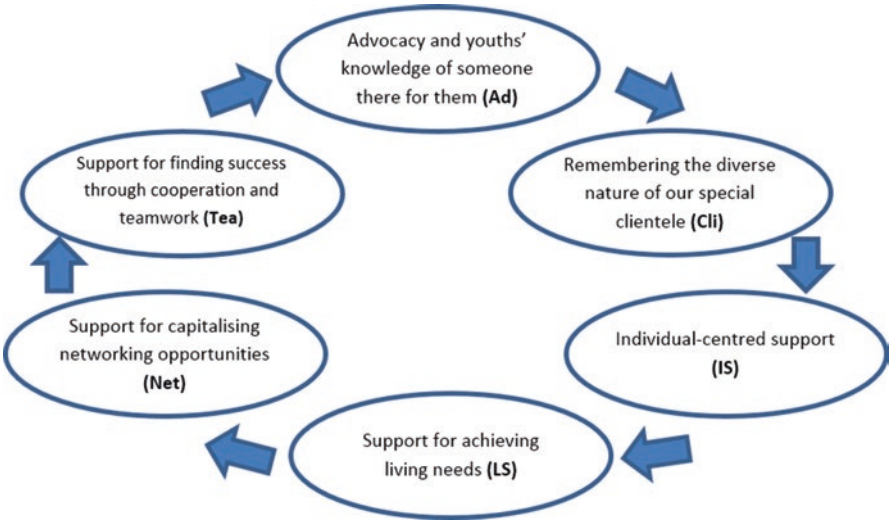

Fig. 7.2 Working to recognize and attend to youths' psychosocial and cultural needs

conducted by Yourtown. Participants were 135 females and 406 males whose average age was 18.8 years (SD = 5.2 years). The participants had diverse backgrounds that were most typically configured around historical marginalization and disadvantage through which identifiable barriers to employment had developed. Notably, 34% relied on government welfare payments, and 24.9% indicated they had no income before starting with Yourtown. There had been negative modeling through the family employment histories—45% of the young people had grown up with their adult models not having regular work and being reliant on welfare payments. Few of the youth themselves had employed-work histories, with 44.7% never actively participating in the workforce and a further 38% having done so only through very occasional casual work. Levels of formal education were low with 38.6% having dropped out before completing their compulsory years of schooling, and many lacked secure accommodation with 11.7% living in supported accommodation facilities, 6.3% in temporary and unstable situations, and 42% in public housing. General characteristics across participants were:

- Depressed language, literacy, and numeracy skills
- Offending and antisocial behavior
- Substance abuse
- Lack of social support
- Low self-esteem
- Poor emotional well-being
- Little optimism about the future or goal-setting

- Constrained aspirations
- Maladaptive decision-making styles

There were two critical findings from the research in relation to engagement. First, the majority of the young people who commenced a program stayed with it through to its completion. This high level of persistence signified sustained behavioral engagement, which was associated with major measureable employment and psychosocial outcomes such as gaining and staying in a job as well as having better socialization, agency, self-esteem, and feelings about their futures. This observed result indicates the successful transition to work most participants made following previous failure to do so. The connection with engagement in this finding is that the young people’s persistence once at Yourtown is indicative of a commitment to attend which then opened into opportunity for so many of the young people to access and participate in the program’s intended agenda for positive change.

The Employment Outcome

More than 77.4% of the starting sample of 542 young people remained engaged with Yourtown through to completion of their social enterprise program, both in terms of attending, and in the development of work and attitudinal shift as indicated in data reported below. Doing so speaks to high percentage recovery of engagement among a population characteristically at risk of failure (Anlezark, 2011) and for whom schooling had not mediated that risk in an appreciable way.

Completion of their Yourtown social enterprise was also a positive predictor of successful transition to work with 61.3% of the sample moving into full-time employment, or re-engagement with education or further training following their program. Of this group, 89% maintained their employment at the Australian government’s standard for being classified as fully employed (13 weeks of continuous full-time work)—with 80.3% still in their employment at 26 weeks post-participation in their social enterprise program. An additional 11.9% of the young people obtained part-time work. The employment and employment sustainability data indicate that these young people also had engaged sufficiently in acquiring the skills, knowledge, and attitudes to accommodate the task and participation demands of their workplaces.

Second, comparisons of measures at the program entry and exit points showed that the young people had made significant psychosocial improvements that, at least, are suggestive of engagement in learning skills for introspection and for reconnecting with others. Their qualitative accounts of access to wide-ranging learning and developing opportunities through the enterprises matched closely to what Yourtown’s management and frontline staff had described as the intended curriculum and success-oriented pedagogy modeled in Table 7.2.

Table 7.2 Summarized assessments of difference across time for behaviors on two psychosocial scales

Factor	Time	*n*	Mean[a]	S.D.	Comment
Scale 1: antisocial/social interactions					
F1_Antisocial interactions	Entry	302	2.13	0.87	
	Mid	212	2.14	0.80	
	Exit	212	1.98	0.75	
F2_Social interactions	Entry	304	2.29	0.63	Entry/exit significantly different[a]
	Mid	214	2.09	0.64	
	Exit	211	2.45	0.71	
Scale 2: decision-making and self-control					
F1_Cooperation	Entry	94	2.11	0.92	All significantly different[a]
	Mid	88	3.11	0.68	
	Exit	113	3.14	0.64	
F2_Communication	Entry	143	2.36	0.77	All significantly different[a]
	Mid	109	2.74	0.67	
	Exit	140	2.82	0.65	
F3_Planning	Entry	143	2.49	0.72	Entry and exit significantly different, also entry to mid[a]
	Mid	109	2.90	0.62	
	Exit	144	3.01	0.57	

[a]Statistically significant at $p < 0.05$

The Psychosocial Outcome

Throughout their time with a social enterprise, participants, wherever possible, provided repeated measures of their life and work aspirations; future outlook; self-esteem; well-being; decision-making; agency; language, literacy, and numeracy skills; social interactions; substance abuse; and antisocial behavior. Repeated measures were not possible in all cases because of participant dropout or unavailability at particular times when measures were taken. There was also data impediment through non-responses to some items. Summarized assessments of difference across time for scales calculated from factor analyses for antisocial and social interactions and for decision-making and control are presented in Table 7.2 for all who completed at least two of the measures.

The analysis indicated (1), on the antisocial/social scale, statistical significance of young people's improvement in *social interactions*, with no similar significance in the identified decrease in antisocial interactions, and (2) statistically significant advances at programs' end in *decision-making and self-control* in terms of participants' cooperation, communication, and planning.

While issues such as drug and alcohol use, arguments, physical fighting, and trouble with police each had lessened at statistically significant levels, the combined results for these data show changes that had not factored as a statistically significant change in *antisocial interactions*. This may have been bias-related in that it is

possible that a concentration of young people for whom these issues had been most intense may have been among the 22.6% of participants who did not finish the enterprise. Consequently, these participants had not been included in the exit data where otherwise the possibility for large-scope improvement might have been observed.

Otherwise, it is likely that relational issues such as antisocial interaction may continue to been seen as "normal" and acceptable in marginalized people's life space, which is different from the life space they accessed when they were engaged in the social enterprise. Yourtown had set out to minimize marginalized youths' needs for displays of protection, attack, or retreat mechanisms and to maximize opportunities for discussing such needs in a context of reasonable alternatives. The purpose in this move was to encourage participants' application of better self-regulation in-house and potential for its generalization after day's end. As a case study youth observed,

> I've learnt how to build fences and I've learnt how to control myself when other people give you crap. So now I've learnt how to be calm and ignore them people (BTY3).

However, it may not be realistic to expect that benefits from developments in those experiences would generalize quickly, if at all, to the less positive environments where many of these people live, work, and play. As Kieselbach (2013) theorized, exclusion has many faces, and some of these such as *spatial exclusion*, *cultural exclusion*, or the *submerged economy* exert confining power in the first space and may be counterproductive or delaying forces on participants' consolidation and extension of their third-space personae.

Nonetheless, in light of Kieselbach's (2013) profile, the improvement reflected in findings for Yourtown's "marginalized and without voice" young people across social interactions, decision-making, and self-control areas (Table 7.2) is an important outcome. Components measured in this improvement included the following.

Life and Work

Greater confidence emerged during engagement with the social enterprise in relation to life and work (Figs. 7.3 and 7.4). The youth became absorbed in the work, seeing it as a positive part of their days and lives, recognizing that others saw it as positive, too, and valuing that recognition. As a consequence of this engagement, the young people's views of life goals changed fairly dramatically. Five of the six statements related to desirability of possible outcomes not only seemed far more

important to Yourtown's youth at their exit than they had previously (Fig. 7.3), but they, along with the sixth statement, were all now viewed as more likely to occur (Fig. 7.4).

For example, the exit data revealed a strong increase in youths' desire to be in charge, of being their own boss, and of having work. Statistically significant shifts had occurred also in "having a job that society values" (e.g., see the very important

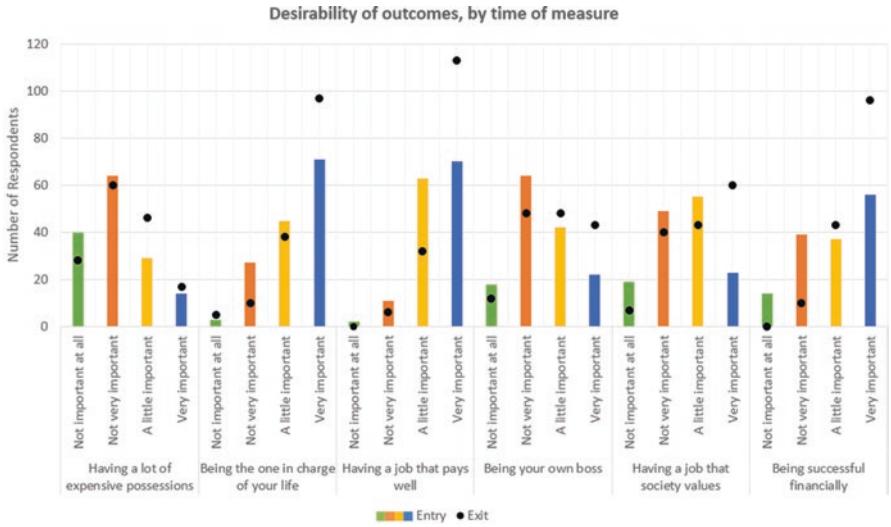

Fig. 7.3 Desirability of outcomes, by time of measure

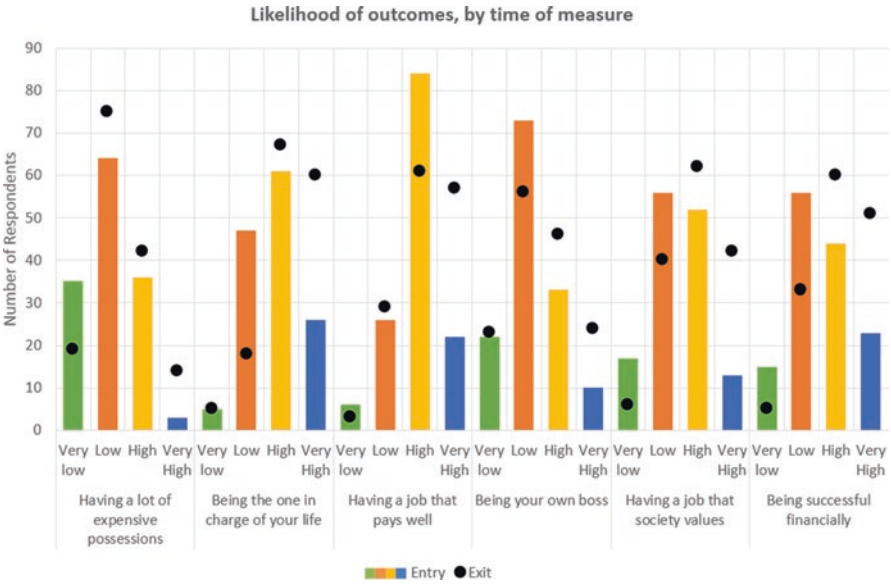

Fig. 7.4 Likelihood of outcomes, by time of measure

category of Fig. 7.3: 15.8–40.0%), "being financially successful" (38.4–64.4%), and "having a job that pays well" (47.9–74.8%), indicating that so many more of these young people were now setting their vistas higher than on the previous measure. As shown in Fig. 7.4, there was an important and significant upward shift in youths' perceptions that these aspirational outcomes would actually materialize.

Table 7.3 Improvement in participants’ self-esteem

Self-esteem	Entry (%)	Exit (%)
On the whole I am satisfied with myself	66.7	82.2
I am able to do things as well as most other people	76.8	88.2
I feel I do not have much to be proud of	40.9	20.4
I certainly feel useless at times	58.1	32
I feel that I’m a person of worth, at least on an equal plane with others	79.8	85.9
I wish I could have more respect for myself	57.4	29.7
All in all, I am inclined to feel that I am a failure	27.6	14.3
I take a positive attitude toward myself	65.4	84.7

Table 7.4 Improvements in participants’ well-being

Well-being	Entry (%)	Exit (%)
No longer felt constantly under strain	35.3	56.1
No longer felt you couldn’t overcome your difficulties	31.0	57.7
Not feeling unhappy and depressed	41.8	64.0
Not losing confidence in yourself	40.5	68.9
Not thinking of yourself as a worthless person	45.9	72.4
Not losing sleep over worry	45.6	69.0
Been able to concentrate more than usual	14.9	35.8
Felt capable of making decisions more than usual	14.9	39.0
Been able to enjoy normal day-to-day activities more than usual	14.5	22.6
Been able to face up to problems more than usual	7.4	25.3
Felt you were playing a useful part in things more than usual	10.7	35.5
Feeling reasonably happy all things considered more than usual	13.9	30.7

In addition to new outlooks on work-related desires and prospects of their achievement, the re-engaged young people made important gains in their perceptions of their psychosocial selves. Their confidence also increased greatly in relation to an improvement in self-esteem (Table 7.3).

Unlike Mick Jagger’s lyric, they now had satisfaction. They also had positive attitudes about who they were, bringing about a greater self-respect, and things to be proud of such as their achievements, big and small, in their social enterprises and greatly reduced feelings of uselessness from those they had revealed at the entry measure.

There were also significant shifts in all measured areas of well-being (Table 7.4) particularly with improvements in participants’ perceptions of better concentration, decision-making capability, participating in learning events, enjoyment of what they were doing, facing up to problems, and feeling reasonably happy (Table 7.4). Well-being also was better in the six areas measured on reduction of negative affect. For example, young people had fewer concerns about being constantly under strain, not being able to overcome difficulties, being unhappy and depressed, losing confidence, thinking of themselves as worthless, or losing sleep through worry.

Table 7.5 Significant improvement in participants' decision-making competence

Decision-making	Entry (%)	Exit (%)
When I have a problem, I get the information needed to deal with it	53.8	83.8
I make sure I understand the situation I'm in before making a decision	43.4	77.5
My values are important to me when I make decisions about my future	67.3	88.4
I am in control when I make decisions	62.1	88.9
I use help around me when I make decisions	40.3	79.2
My best decisions are always made when I think about advice from others	36.8	48.0

Youth who had finished the social enterprise journey saw themselves as now making better decisions. They had improved in their relations with others. As shown in Table 7.5, their better decision-making was aligned with greater agency [e.g., *I am in control when I make decisions*] and technique [e.g., *I make sure I understand the situation I'm in before making a decision*; *I use help around me when I make decisions;* and *My values are important to me when I make decisions about my future*]. Unsurprisingly, additional findings showed that the positive changes in decision-making and agency were associated with youths' perceptions that they now were coping better [e.g., *When I have a problem, I get the information needed to deal with it*. There was significant reduction for the negative item, *I have trouble solving everyday problems*], better social communication [e.g., *I feel confident talking to people I have just met; I am good at listening to people and I chat with neighbors*] good personal learning of important skills and functional applications [e.g., *I am good at reading skills, I am good at maths skills, I can identify spelling mistakes easily, I make a budget to help me with my money* and reduction for the negative item, *It is hard for me to fill out forms*].

Personal Futures

Yourtown's young people improved remarkably in their vision of personal futures. They now had future goals (Fig. 7.5). This suggests that their engagement in the learning opportunities of the social enterprises brought positive effects and benefits well beyond dealing with the picks, mattocks, concrete saws, and the immediate successes in the training places.

The incidence of positive social interactions increased. Three of the seven survey items depicting positive social interactions indicated statistically significant improvements over time [*chat with neighbors*; *eat out;* and *meet with friends]* (Fig. 7.5). However, all seven together provided the "social interaction improvement" factor that described youth who had completed the program (see Table 7.2).

The young people's improved social behavior was accompanied by decreases in some of their previous antisocial behavior. For example, the incidence of smoking, alcohol, drugs, physical fights, and trouble with the police all lessened across each

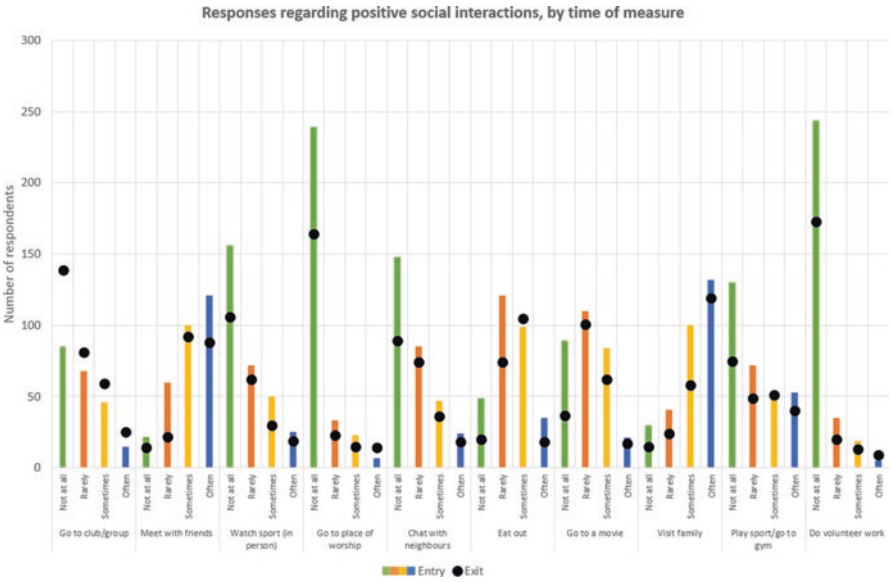

Fig. 7.5 Responses regarding positive social interactions, by time of measure

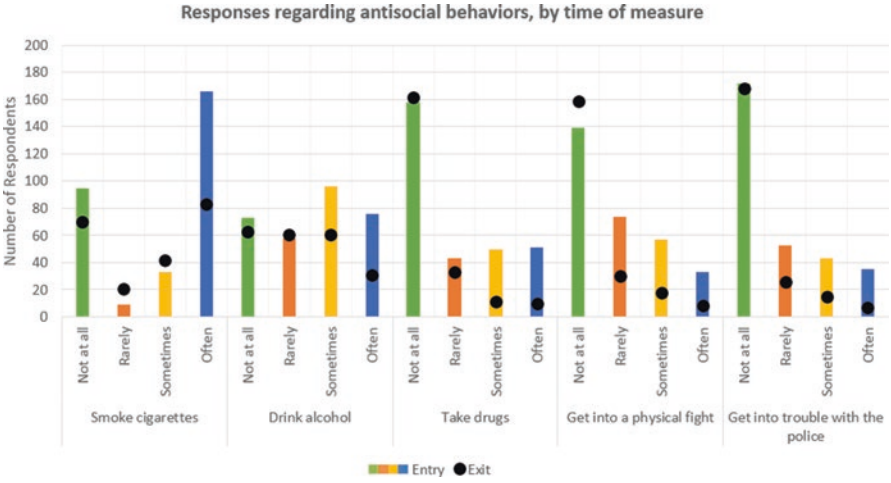

Fig. 7.6 Responses regarding antisocial behaviors, by time of measure

of the three surveys (Fig. 7.6). This indicates significant, positive shifts. However, as revealed earlier, their combination failed to factor into description and prediction of which youth completed the program (Table 7.2).

One Youth's Reflections

Case study data gathered from volunteers provide a depth of individual reflection across experiences that we have attempted to describe here as highly challenged young people engaging with an opportunity to move, with support, into a third-space learning environment. The descriptive data previously presented suggests that many engaged consistently, positively, and productively with the opportunity. Extracts from qualitative accounts have illustrated parts of that engagement and its related perceptions of immediate and possible future benefits. In this final section, one young man (referred throughout the following using a pseudonym, *Jacob*) who was in some ways very like Patrick whom we met at the start of the chapter speaks to his experience of seizing the day and its opportunity to engage, participate, and act.

Jacob said his main need had been to focus on knowledge and practical skills that he now was beginning to access and practice through the horticultural enterprise and with great support from his youth trainer, BTSX. But, he projected a view to the future, too:

> Yeah, I just wanted to learn about different things with trees. 'Cause I've seen a couple of trees I've never actually, I don't even know about them, and, yeah. I just recently learnt about a Blackboy tree which is pretty good. We went to the nursery and done a few things there ... I want to get my licence and then maybe a house or something, yeah.

His curiosity about trees is apparent in the extract. So, too, is that he had linked that motivation with his recent learning. His engagement in the discovery about the Blackboy tree is a continuation of that focus—and his "pretty good" is a value statement. What may have been a small but important step through that engagement seems to have prompted larger aspiration to opportunities, including obtaining his driver's license and a home—but BTY's engagement with work and learning is clear and exciting.

Job/Work Focus

> Yeah actually. I want to learn how to do, like, water fountains better, like, mad landscape. Like, you go to some places and you look at it and you go, 'Oh, that's really nice'. You've got a fountain, a mad, like, little dragon puffing out smoke out its mouth or something; a nice light, a feature on the plants. Plus, I've looked at a few plants that I've noticed I like now. There's one called Chameleon Rose which it grows all different colours and flowers and stuff on it.

This extract further illustrates Jacob's use of the language of learning and the planning and engagement focus it has brought to his activity. His positive connection with gardening coupled with an increasing horticultural confidence and knowledge is compelling in relation to this engagement. Its effect as shown in the following excerpts continues in comments he made about connecting knowledge and

application through practical work with bricks and retaining walls and widening his social circle by meeting new friends through his experience of Yourtown's social enterprise.

New Skills

> Bricklaying, brick edging the garden beds, retaining walls. I've never done that before, but I've done it now. What else is there? Building verandahs for houses. Like I knew how to do that, but I've never done it before. That was my first time that I'd ever done that, at Rosemeadow, and then—just meet new friends and stuff.

He felt that Yourtown had not only widened his experience but also increased his work readiness and ethic. He had noticed, too, that the activity had affected new personal relationships, a notion extended along with moral conduct in the following extract.

Change for the Better

> Yeah, pretty good actually because before this I use to, like, do bad things, like, to make money, like, criminal activity, but now I don't. I just stick to work and have no time for crap like that. Now I've got a girlfriend and yeah.

Jacob talked of legitimate rather than illegitimate activity as his current interest and goal. His talk also included friendship and the importance of having friends.

Goals and Progress

> Well I have four goals this year. Go for my licence, which I haven't done because I've got too much fines; quit marijuana, which I have; and then quit cigarettes, which is hard; and, cut down on drinking. I can only drink every second weekend or third weekend or something.

At the final interview, Jacob was already working to find a job. He had found Yourtown supportive with searching for possible work where he could use his new skills and was hopeful of finding something despite initial disappointment:

> Yeah, they, like, lined a couple of jobs up for me and, yeah I went for a couple of interviews but I just didn't end up getting a job. It's just a bit hard. These days it is anyway, it's hard to get a job.

Although Jacob still had the task ahead of gaining sustainable employment, readers will be gladdened by his joyfulness, positive attitude and approach to learning, and growing his future. That was the case for us as we reflected on his words. His account included at least one important milestone. Like many of his peers, he had

been a welfare recipient for some years before joining Yourtown's horticultural social enterprise program. He took some time to settle in and might easily have joined others who quit their programs and reverted to social welfare. But, he had not done that. He remained and had learned skills and developed insights about what learning was bringing into his life—from discovering the names of trees and flowers that had awakened his curiosity and admiration to procedures like creating water fountains and bricklaying garden edges that added beauty and appeal to his work. He also had become open to positive futures around socialization, mobility, and housing. He had made an evaluative realization about his life that now included a sustainable work ethic, a girlfriend, aspirations, and a learning orientation so very clear in his transcript. His social enterprise group in helping him to see how to engage had provided opportunity for him to watch, learn, think, talk, and act as a learner; to become functional with, in, and through work; and from this base to his assessment of future opportunities.

The work the Yourtown staff and Jacob himself had done and the progress it shaped were systematically organized around a learner-centered agenda, which began with reminding him that he could be successful and inviting him into a third space where he could try doing so in a different way from his previous classroom experiences and what he might otherwise not have viewed as possible. He engaged cognitively, emotionally, and socially in the Yourtown program wherein he found his voice and gained new abilities and a new self. Most importantly, he envisaged a future that was possible and that he valued. His entry, perhaps tentative, was strengthened with authentic work and its inbuilt need for him to skill-up to meet its challenges. His initial engagement in the program might have been temporal and shifting as he was still trapped in his old self. A new contextual dynamic was choreographed by mentor–instructor intent on building on his successes through incremental progression of his program. They educated to this intention modeling engagement and demonstrating and talking with him about it while scaffolding his confidence and competence via action, reflection, and discussion. They invited his thinking and discussion about what he did and how he did it. The program built around him.

He was flourishing. At last. He had recovered belief in learning, and in himself, because of the teachers who had acted as builders.

Conclusion

Why had Patrick and Jacob needed to wait so long to connect with the joys and benefits of learning? How might their experience inform us about handling similar young people who fail to engage with educational opportunities during their schooling? What does their eventual connection tell us about systems such as those that enabled them? These are important questions for framing a view of engagement as a key conceptual factor of human development.

We might look to evidence of Patrick and Jacob's negatively predisposing characteristics (Anlezark, 2011) in venturing that neither nature nor nurture had served them well as infants, children, or early adolescents. Also, it is likely that exclusion of various sorts (Kieselbach, 2013) and possibly as suggested below would have accompanied their impoverished circumstances and limited their opportunities in comparison with many of their classmates. These would be limitations resulting from:

- *Education and training exclusion*—where low levels of build of applicable prior knowledge and qualification and lapsed confidence restricted their progress and/or its possible continuation in post-compulsory years of schooling and admission to higher education and training programs
- *Submerged opportunity for academic identity* where only occasional academic successes and off-task or out-of-class nonregulated thinking limited their accessible bases of academic recognition, reward, and adoption
- *Intellectual exclusion* through deepening the lag in knowledge and intellectual know-how [the Matthew Effect (Stanovich, 1986) at work in the processes and outcomes of socio-academic activity] deepening their senses of failure and of inevitably lowly futures
- *Pedagogical and institutional exclusion* through lack of realizable support in available pedagogy, through alienation of potential institutional support, and sometimes through overdependency on institutional support
- *Social isolation* through shame and retreat from positively nurturing social and academic networks
- *Cultural exclusion* in being unable to live according to socially accepted norms of the educational system, school, and class
- *Spatial exclusion* from living and having schooling only in a subset of possible places

They had failed as students in their years of compulsory schooling as Anlezark (2011) had foreshadowed, and had been failing as positive and contributing members of community as Kieselbach (2013) had warned.

Yet, as late adolescents both Patrick and Jacob had responded far more constructively to development opportunities. They performed much better in the social enterprise contexts of authentic learning activity that was "them-centered," success-centered, and flexibly enacted. These three features are "engagement-rich" opportunities that Patrick and Jacob recognized and took. They freshened their readiness to try, perceived accessible learning moments, and engaged them through active participation in a step-by-step mastery. A learning–teaching culture where practice is student-centered, success-centered, and flexibly enacted will be well-known to change agents like Bondy and BTSX as productive pedagogy to help disaffected young people in social enterprise environments to re-engage as learners, reconsider their potential and worth as individuals, and reconnect as contributing members of community. It will be recognized also by the many teachers who have noticed a young Patrick or Jacob in their classes and made immediate adjustments to ensure that opportunities of schooling are truly accessible and able to be engaged by all.

Chapter 8
"Opportunity to Re-engage": Alternative Education Programs and Pathways for Youths Who "Don't Fit"

Engagement as an act of commitment brings with it the opportunity to flourish and to grow in positive ways as a result of learning. It is both an outcome and a means to an outcome. In an educational context, students engage by participating in the learning occasions and opportunities that are presented within their school context. This assumes that such occasions and opportunities exist and that they are accessible, as argued in Chap. 3. It also assumes that students have the cognitive, affective, and behavioral wherewithal to recognize and act on what others create and to create opportunities for themselves as a form of agentic engagement (Reeve, 2013). Doing so might be considered as "getting with it" when the "it" that students "get with" captures their grasp of productive potential in the opportunity.

"Getting with it" is engaging. At a face level, it means students become actively involved with the learning of a task in decidedly receptive ways. Students who consistently perform well typically realize what they are doing when strengthening their acumen. They also reinforce the content, procedural, and conditional knowledge gained from the encounter for later reference (Corbett, & Anderson, 1994; Gutman, 2017; Nissim, Weissblueth, Scott-Webber & Amar, 2016; Pintrich, 2002). They are metacognitive. But, when they or their underperfoming peers see tasks as unfamiliar or perplexing, they will need guidance with procedural knowledge if they are to engage productively.

Most students engage easily, often, and usually on the focal "it" that others such as parents, teachers, and acquaintances provide in helping them move forward through zones of proximal development (Wertsch, 1984) to new levels of knowledge, awareness, and skills. Moving oneself along as both the source of engagement and learner in the engaging moment may be a little more complex but is just as important (Blaschke & Hase, 2016). In either case, distraction occurs from time to time, for example, when competing opportunities or fatigue are at play, and we may not always recognize or remember the procedural and conditional operations that have previously helped our progression. But most of us maintain our engagement sufficiently to learn enough of most things in mainstreaming our way through our years at school or at college. We do it well—and so we do well. We flourish. We

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reach, and pass through, the opportunity thresholds by initiating, maintaining, growing, and reaping the personal and social rewards of engagement and the productive involvement that materializes in learning and development opportunities at school (Fitzpatrick & Pagani, 2013; Van Ryzin, 2011). But not all of us do it well. In fact, some of us don't do it at all.

Case Vignette: A Marginalized Learner Engages with Engaging, Learns, and Loves It
(Based on data derived from an Australian Research Council-funded project on alternative education)

Setting: Opportunity time in an alternative education program

Situation: Class about to convene spontaneously with an activity intended as social literacy development

Persons Involved: Focal student, Terry; classmates, notably Franz and Indika; teachers, Paul and Nancy (colleague, Jeff; principal, Mr. Wintour); cleaner, Nick

Background

Terry had his 15th birthday yesterday and enjoyed the cake the class had made and eaten and the singing everyone had done of "Happy Birthday." He hoped that maybe the teasing and name-calling that had dogged him at other schools was over. "Dumb-ass Terry," "no lunch, no books Terry," "tut-tut Terry," and "teary Terry," they'd called him. He hated those names but had come to believe there was some truth to them. He knew he was dumb, and there was never food enough at home to bring for lunch, and he never had owned a book to bring on "bring-your-own-book days." One of his teachers had motivated the "tut-tut" tease with her frequent tut-tutting to what she described as Terry's reluctance to try, failure to listen, or so many of the other put-downs. Her words had lashed his halting attempts to read more fluently or faster, or to explain the meanings behind what he could read, or to write his own thoughts in ways she understood. She was right finally, he thought. He'd stopped trying long ago. Until now.

He was attending an alternative education program run as a flexi-school by a nongovernment organization and had been there for almost a year. He'd been a habitual truant before, running off regularly since Year 3 from the state schools he had attended. Most of the time, he had minimal school attendance during Years 3 and 4. Terry had often been suspended for misbehavior—usually for unexplained nonattendance or fighting in the classroom or playground—and excluded three times before his admission last year to the Glipney Flexible Learning School.

The schools he'd left had constructed a record that Glipney Flexi teachers, Paul and Nancy, had shown to him and discussed with him when he first started at this school. There were no good items on the record. The major items of concern were

his truancy, aggression, bad temper, and lack of self-regulatory behaviors. He still thought truancy had been OK, given what had been happening at home. But, he often thought that he'd missed out on some good teachers, too, teachers who he now understood had been good models for his classmates and would have been so for him, had he been at school. He thought that maybe that difference was why most others always had been able to read better than him.

He knew about aggression and bad-temperedness. His life had been full of it. He also knew that Paul and Nancy thought he couldn't read well when he first met them. Terry figured that was why they were always talking with him and showing him things to read. He appreciated them and what they were doing for him. He was getting the hang of it now, with the papers they were helping him to write and illustrate on keeping the school's bees happy, healthy, and making great honey and money for the school. He drew the charts for the direction the bees turned after taking off from the hives and wrote and illustrated labels for the bottles. He was working on knowing more and more about bees, and Paul had shown him how to make notes of his observations and things that the apiarist had told him. He loved this part of his schooling and had just about decided that he would be an apiarist, too. The principal, Mr. Wintour, arranged for Terry's "bee charts" to be kept in a display cabinet in the library so that everyone could see them and agreed with Nancy and Paul that Terry could take home a bottle of honey each time the apiarist collected and bottled the honey and that he could be a panelist in deciding which student each month should win a bottle of honey as the "True Grit" prize. He was also in charge of selling the honey and was on 10% commission for sales. Nancy and Paul had told him what "self-regulation" meant, too. He was working on that as well.

It wasn't just school. He had run away from home a few times, too. That was before his father, or the man he was told was his father, had been sent to prison for beating up his mother so badly that she was in hospital for many months, and for throwing his older brother against a wall and killing him. That was when he was 10 years old, and his mother was never quite the same again after she returned. His father was still in prison, but Terry, along with his two sisters and his mother, had never been to visit him—and his mother said they never would. That was just as well because none of them wanted him or his drug-addicted friends back in their home.

"Home" was not like the "homes" his classmates had—always neat and always in the same place. His family stayed where they could, often needing to get out before landlords called for their rent. The Salvation Army had looked after them while their mother was in hospital and had found them a small rental house 2 years ago. They had sent some people around to clean it. He'd helped them paint it outside and learned that to be properly painted, a house needed an undercoat as a foundation for overcoat layers. He also knew that with oil-based paint, he needed to stir the paint every time he took off the lid to get a good flow and that it was so much better than water-based paint for the exterior of a house—especially if it was on the rainy side of Glipney, like theirs was. He'd loved what the Salvo man had told him about preparing the old wooded timber before putting on the paint—and preparing the paint before putting it on the timber. He'd told Paul and Nancy all about this, because

he knew he had to say something about something that might be good as he believed he didn't have the ability to do much that was good.

He was at school early today as usual and had been talking with Nick, one of the cleaners—and helping him with emptying the wastepaper baskets and rubbish bins from the four-room complex. His two mates, Franz and Indika, had joined in and were now joking with Terry about whether he shaved up or down in the mornings. Nick was laughing, too, and explained the joke to Terry.

> See mate, it's a trick question. If you say "up," they'll keep pesterin' until ya say "down" or "down, too"—something like that. And that's the trick—'cause they want ya to say ya' shaving soft whiskers like a duck's soft feathers that they call "down"—like in the eider-down ya mother puts on ya bed in winter.
>
> "Smart, little buggers, aren't they," Nick added.

Terry felt mocked and didn't hesitate. He jumped at Indika, knocking him off his feet, and had time to bloody Franz's nose before Nick and Jeff, one of the teachers arriving for the day, grabbed him.

> "Bastards," Terry spat at his two classmates.
>
> "What the f__k," hissed Franz as blood dripped to the floor.
>
> "S__t, mate," interrupted Nick, "I shudn'na told ya, Terry. Sorry, mate; sorry Franz; you alright, Indy? Here's some paper towel fer ya nose, Franzy."

Jeff settled the group, just as Nancy and Paul arrived having heard the noisy exchanges outside the common room where they'd been chatting with students who'd been munching on the toast and cereals provided by the school. Paul tended to Indy and Franz, subtly moving them a few steps away from Terry and Nick. Nancy held Terry's heaving shoulders, looked him in the eyes and said, "Franz is OK. So is Indy. Are you OK?" Other students gathered and hovered.

Opportunity to Engage, Learn, and Flourish

Nancy looked past Terry to where Paul and Jeff had finished attending to Franz's nose. Nick stood among the gathering throng, muttering about having caused the whole business. In a calm and convincing voice, Nancy said, "Let's do some reading without books or i-Pads and let's do it out here in the sun where we can sit close enough to see each other and in any comfortable place you can find." The recent adversaries sat but exchanged "get you later" glares as they did so. Their classmates sat, some grinning, others bemused—most expecting the scuffle to break out again—and none of them averse to witnessing fisticuffs at close quarters. Jeff apologized saying he had to get to his class group and left. Paul sat, but very close to Franz and Indy. Nick found his cleaner's trolley and sat on its platform. He continued to mutter. They were all participating in the activity developing outside the classroom. Nancy said, "Imagine we are all parts of a house. This is a house that needs some repair—it needs fixing up." Screams of laughter followed when one of the boys said he didn't want to be the toilet. Others began to volunteer what they did

want to be. Nancy waited patiently. When the volunteering stopped, she said, "What are the outside walls made of—what can you see?"

Back came the answer "air," "nothing but air." Nancy continued, "Just imagine that there are walls. See them in your minds, not your eyes. Read what you see. What are they made of, what is the floor made of, what about the roof?" Walls were brick, timber, and metal. Floors were slats, carpet, tiles, or timber. Roofs were metal, tiles, or timber. The variety bought nods and shakes of heads, yeas or nays, and hands raised in accord or discord as agreement and disagreement took hold across different responders. Terry's mind-house was all timber other than its tin roof.

Nancy used the opportunity to point out what mindsets are and how easily a perfectly logical answer or reaction might be very different from another's perfectly logical answer or reaction. She went further by questioning the spontaneously collected group of students (including a few from Jeff's class) about what they had noticed when people came up with different answers. She interrogated their perceptions to frame students' reading of links between perspectives and decisions. The group was enthralled. Showing a deft and dramatic turn from imaginary houses to the morning's reality, Nancy looked at Nick the cleaner, who had long since decided on being part of the lesson rather than wielding the mop. She asked him to read aloud in a "great big voice" what he had in his mind about what he had seen and felt earlier involving Terry, Franz, and Indy.

The crowd of students and teachers crowded closer to the cleaner's trolley. Nick read aloud what he saw in his mind. Nancy turned to Indy and repeated her inquiry. Indy read his mind aloud, and in turn, Franz and Terry did, too, using the same framing that Nancy had provided.

There were similarities across the four accounts. But they were different in one important perception. Franz and Indy did not read what they had done as teasing or provocation and had not contemplated Terry feeling aggressive. Nick read it as teasing for fun, a little risky maybe, but not greatly so. Terry read it as provocation—as if his two classmates were saying he was underdeveloped.

Nancy asked Nick what he would do if he could change what had happened earlier. Nick said that he would not have said anything and felt that if he had not interfered in the boys' fun banter, it would have continued as fun. Nancy repeated her inquiry with Franz and Indy, who volunteered that they could see why Terry had attacked them and that they had not meant to upset him and that they were just having fun and were sorry.

Nancy changed tack once again when turning to Terry. "Terry," she said, "Imagine what happened this morning as a wooden house that needed to be painted. How would you do it?" He didn't answer. She and Paul followed up later in the day in a quiet session with Terry, asking what the undercoat might be if he were to paint the house of a similar event if he wanted the outcome to be different. He replied immediately that he would ask the others why they were asking the question and that he would do this like the bees send out scouts in the morning to see where the swarm should fly to find the best pollen. They showed their delight at this response and worked with him to explain and position the excellence of his metacognition in forming and expressing it. Further, they set him a homework task of imagining how

he might use the picture in his head of "undercoat-and-stirring the paint to get it to flow-and-picking water-based or oil-based paint and preparing the timber before putting on the paint and preparing the paint before putting it on the timber" to make sense of whether people were having fun or being deliberately hurtful.

The following morning, Paul arrived to find Terry chatting with Nick as they emptied wastepaper baskets into the bin on Nick's trolley. They were talking about Terry's homework, and how Terry was going to use it as a yellow traffic signal before responding to worrisome situations. Nick called out to Paul, "Hey—nice homework ya gave the young fella. Next time there's a possible stoush, by the time he works through painting his house, his mates will'av shot through!" All three laughed long and hard. All three had engaged, and Terry had a basis for building this further in work Paul intended doing with Terry and his beekeeping activities.

Nancy and Paul drew similarly from individually relevant ties to personal accounts that Franz and Indy had shared with them previously. These had been about something in the past that each of them had done well. In Franz's case, it was an incident in which he had retrieved a fledgling mynah bird that had fallen from its nest and returned it in a hazardous climb up the tree. In the opportunity created by his teachers to bring his prosocial behavior into communicative language, his analysis yielded information, discussion, and affirmation about the good order in his thinking and action in restoring the baby bird to its nest. The teachers molded the shared discussion to highlight Franz's initial engagement and its sustainability through to completion of the task and the joy and efficacy he experienced. As this unfolded, they identified and helped him put labels on the perception, decision-making, planning, implementation, coping with adversity, positive behavior, and feelings that lay behind his thinking and behavior. They revisited the interaction event with Terry on the previous day and analyzed what had happened in terms of the labels they now were using to describe his own and Terry's likely perspectives. He did this, again apologizing, and again saying he had not intended to upset Terry—but that now he understood why Terry had reacted. The incident had morphed into an opportunity for learning, and the two teachers had helped Franz and Terry to engage with a better social literacy through the scaffolding provided to operationalize and value "being engaged."

For Indy, the reflective focus was what the teenager remembered he had needed to do to convince the manager of a fast-food store to hire him as a part-time casual staffer. They repeated the opportunity and scaffolding they had created with Franz, helping Indy to describe his engagement, how he had used it, what benefits it had brought, where he might use similar processes to revisit the incident with Terry, and where he might apply it in other social and academic tasks.

The two teachers had skillfully worked the sets of reflection, efficacy, and pride that Terry, Franz, and Indy brought to discussion into important learning for the students in relation to the acting-out event of the previous day and possible alternatives. They also shared a coffee with Nick the following morning and revisited the previous day's incident in much the same way as they had with the three young teenagers.

All six major participants in this vignette had advanced their talk about self-regulation and the role it plays in social behavior, and strategies for cultivating it based on authentic experiences of success. It is unknown at this point what followed in further development of Terry, Franz, and Indy's engagement activity or whether the two teachers arranged for related mind and action activity for all others who had been witness to the event. However, Nancy's spontaneous lesson in situ immediately after the incident and what followed was exemplary. She and Paul had created opportunity from adversity to help Terry, Franz, Indy, and Nick to think and build positively, illustrating how competent educators act to open access and encounter with the concept of engagement.

Despite the prospects of schooling that community, parents, and teachers advocate as bright and advantageous (Brint, 2017), there are students who regularly do not engage in what schools deliver as mainstream education (te Riele, 2014). There are personal, social, and instructional conditions underpinning why this is happening and resounding evidence (Gutherson, Davies, & Daszkiewicz, 2011; Murray, Mitchell, Gale, Edwards, & Zyngier, 2004; Noble, 2017) that some young people characterized as we saw in Anlezark's (2011) account in the previous chapter are marginalized in relation to perceptions of their "fit" with mainstream schooling (Aron, 2003, 2006; Aron & Zweig, 2003; Swain-Bradway, Swoszowski, Boden, & Sprague, 2013). Without special support, these marginalized young people are at risk of missing learning opportunities or of failing to engage and flourish in their time as students and, more generally, throughout their lives. This group may or may not include those young people who, because of numerous suspensions, exclusion, or expulsion from school due to persistent misbehavior threatening the safety, learning, and well-being of others, or the functioning or "good order" of a learning–teaching environment (Department for Education and Child Care, 2016), are referred for special support programs beyond the realm of mainstream education.

What Is Marginalization?

The United Nations Educational, Scientific and Cultural Organization's (UNESCO) International Institute for Educational Planning explained marginalization as "related to but different from inequality" (UNESCO, 2010, p. 5), and while noting that academic definitions vary, its use of the term was "to describe situations of acute and persistent disadvantage in education (as distinct from the overall distribution of education opportunity)" (p. 5) with specific reference to the following potentially marginalized groups, clustered in different categories:

- *Gender-related:* girls (interestingly, although in some countries girls now outperform boys, boys were never mentioned as a disadvantaged or marginalized group)
- *Culture-related:* children belonging to specific castes, ethnic groups or tribes, or religious groups and children speaking specific languages

- *Location-related:* children living in conflict-affected areas, refugees and displaced persons, child soldiers, nomads, rural, (pastoralist, etc.), children living in urban slums, street children
- *Poverty-related:* working children, overaged children, poor/vulnerable children, and single mothers
- *Special groups:* children with disabilities, children identified as gifted, children living with HIV and aids, orphans

In our use of the term, we recognize the UNESCO categories and also include those young people who have been excluded or expelled from school under the umbrella term of "marginalized". Three related factors mediate this inclusion. First, in many systems (Aron, 2006; Swain-Bradway et al., 2013), children with behavioral problems that are serious, persistent, and threatening enough to result in suspension, exclusion, or expulsion from mainstream schools form a major subpopulation of those in alternative education, which is an important discussion point of our chapter. Second, suspension, exclusion, or expulsion associated with a student's irresponsible behavior and applied for the protection of the safety and well-being of other students and good order of his/her school falls under the duty of care that school administrators and their related systems must uphold. Therefore, discriminatory treatment of those who are threatening the learning opportunities of others, or themselves, is a defensible intolerance of such behavior in those settings. Third, most systems have alternatives to accommodate the suspended or excluded students' rights to an education regardless of their miscreant behavior.

How Do Marginalization, Disengagement, and Exclusion Relate?

Much of the risk of disengaging in opportunities that are ostensibly accessible and used by others resides in effects of exclusion (Kieselbach, 2013). Such exclusion effects include youngsters' deepening lag in knowledge and intellectual know-how. Stanovich (1986) described this as an educational Matthew effect due to the persistent gap between good readers and poor readers widening through the years of schooling. Differences and deficiencies in social skill development through poverty of out-of-school opportunities are likely to aggravate the negative effects of exclusion and further inhibit the young people's knowledge and use of appropriate social and academic enablement in school even during the time that they are not excluded. In Chap. 4, we have provided a detailed account of social skills as an engagement enabler.

Any such situation places them at risk of being unable to participate in student roles according to socially accepted norms of the educational system, school, and class and of alienating peer, teacher, and institutional support. This vulnerability is exacerbated when the potential for in-school alienation actualizes or is perceived to occur as apparent in Terry's voice in the vignette. Terry, as a young teenager, realized

that along with the pain of teasing he experienced, he had missed modeling when he was at school that had been enjoyed and accommodated by his classmates who had learned far sooner than he about such operations as reading for understanding and mastery. As Cambourne's experienced teachers tell it (Cambourne, 2001), many otherwise promising students fall foul of never having engaged with appropriate modeling that demonstrates how to engage—or of having engaged only with very inappropriate modeling—and so don't really come to know much about how to comprehend texts. Terry was lucky to now have a late opportunity in his compulsory schooling years where modeling, offered by Nancy and Paul, was accessible, appropriate, and valued for the changes including reading and writing, but much more. However, many marginalized youths are not as fortunate as Terry (Lucariello et al., 2016; Savelsberg, Pignata, & Weckert, 2017).

Lucariello et al. (2016) reminded us that students' beliefs about their ability affect their cognitive functioning and learning. They pointed to two adversative mindsets operating as students configure their approaches to performance goals. Many see ability as a fixed commodity, and those who do are likely to believe that "they need to continually demonstrate and prove their intelligence. Such makes them more hesitant to take on highly challenging tasks and more vulnerable to negative feedback than students holding an incremental view" (p. 57). In contrast, those with an incremental or growth mindset generally "are more willing to take on challenging tasks in an effort to test and expand their intelligence or ability. Hence, they rebound more easily from negative feedback and failure and perform better on a variety of cognitive tasks and in problem-solving situations" (Lucariello et al., 2016, p. 57). Seemingly, students with fixed commodity mindsets would be even more hesitant in their approaches to performance goals if they believed their levels to be unchangeably low—and this is part of the "risk" that Anlezark (2011) foreshadowed for young people from low socioeconomic, rural, and Indigenous home and community circumstances, poor family environments, and negatively mediating connections with schooling.

It is not difficult to imagine which of the two mindsets Terry was developing during his school years as name-calling and teasing from his peers plagued his beliefs about his ability to "get with" the performance goals set by his teachers or to engage with growth trajectories and experiences that might lead to further failure just as easily as to success. If Terry's account of how peers and some teachers regarded him is accurate, he was typically seen as disconnected from, disinterested in, or incapable of class activities, as well as being perceived as aggressive and troublesome in the playground. Such repeated negative evaluation would have affected his "governmentality"—a term Foucault (1991) used to account for people's self-regulation or capacity to monitor and control their own thinking and action. It is a feature strongly influenced by the discourses in which we are configured in particular contexts (Rose, 1998).

The effect of truancy and of an unhappy environment when in attendance at school, on Terry's governmentality may have helped him to rationalize disengaging as an inevitable behavior, if not an appropriate one, and reinforced attitudes and behaviors more consistent with failure than success in accessing and participating in

the academic and social opportunities of his schooling. However, his remarkable insights, progress, and awareness in his mid-teens while in an enterprising program of self-discovery and learning around beekeeping suggest a very different control, strength, and purpose in his approach to opportunity. At Glipney Flexible Learning School, he sought ongoing engagement in work-based learning following some early success. He persisted in his engagement, displaying metacognitive monitoring, discernment, and control with what began to work well and not so well for him during learning encounters. He was flourishing. His reflections on his years at school provide a retrospective that his governmentality had turned him toward negative behaviors such as avoidance, hostility, or oppositionalism (Archambault, Vandenbossche-Makombo, & Fraser, 2017; Robinson, 2016; Skinner, 2016) that he now regretted as a teenager for its associated loss of opportunities. He was in the process of reversing them as part of his positive self-discovery at Glipney Flexible Learning School. The deliberate motivation he attributed to his action both then and now suggests that governmentality as a surrender to failure during his early and middle-school years was likely to have been an avoidable mistake rather than an inevitable one, if appropriate engagement support had been provided and targeted specifically at areas that he had found difficult.

Combinations of such oppositional thinking, valuing, and behaving are emphatic barriers to consistent engagement with school and schooling and to experiencing success—particularly for so many of our young people predisposed to failure. Where this happens, young people disengage from schooling opportunities in very noticeable ways through truancy and absences. They do so also in less noticeable ways such as inattentive, inconsistent, or deceptive commitment to routine classroom, extracurricular, and homework tasks. Such disengagement diminishes opportunities to flourish. The loss affects prospects and achievement not only of academic development but also of social and well-being advances, an attenuation that highlights the reach of disengagement as "failure" (De Castella, Byrne, & Covington, 2013) that we outlined in Chap. 1.

Alternative Education Programs and Pathways

As societies have become more aware of the many children and young people who struggle to engage with mainstream opportunities (Mills, McGregor, Baroutsis, te Riele, & Hayes, 2016; Te Riele, 2014), parents and concerned community members, including educational policy-makers, have wrestled with how to remodel schooling structures so as to better provide for all. Alternative arrangements have resulted through programs both within, and external to, mainstream settings to better accommodate young people who seem to have been consistently at odds with mainstream schooling, as well as those who educate them, in the pursuit of accessible and actionable opportunities for young people to flourish in education. Swain-Bradway et al. (2013), when noting positive behavior programs in alternative

education settings in the United States, described the purpose and genesis of this development:

> Alternative educational (AE) settings are designed to address the academic, social, emotional, and behavioral needs of youth that cannot be reasonably met within the general public school (Aron, 2006). Youth who are enrolled in AE settings are considered at risk for educational and/or community failure, and often display a range of behaviors incongruent with public school settings (e.g. drug use, delinquency, mental health problems). (p. 31–32)

Theirs is a clear comment that some students need viable alternatives in the delivery of education. They identified two problem areas underlying this dilemma—students' ranging needs often exhibited in behaviors incongruent with public school settings and public schools' incapacity to meet these students' needs. Both issues acknowledge Aron's (2006) observation a decade earlier of incongruence between what many policy-makers and educators acting conventionally in conventional settings are able to do with students who do not fit those settings. We agree with Aron's (2006) contention, and, having seen the rapidity of growth in the alternative education sector and particular application of the sector in attempts to redress the disadvantages of marginalized young people (Mills et al., 2016; te Riele, 2014), we consider that engagement is a useful construct to help explore such incongruity and progress with its resolution.

Homeschooling as an Example of Alternative Education

Homeschooling is a form of alternative education. Typically, parents make the decision not to have their children participate in government or private schooling for a variety of reasons, choosing either to not enroll them or to withdraw them at some time following an enrolment. Recent estimates from US census data (Redford, Battle, & Bielick, 2016; Zeise, 2017) represented by state (Fig. 8.1) indicate that close to two million US children (aged 5–17) are homeschooled.

In terms relative to respective estimates for 2014 of full-time equivalent students in the United States, approximately 75 million (U.S. Department of Education, 2016), the numbers of students being homeschooled in Australia (762,244) are very high (Australian Bureau of Statistics, 2012), representing 1.7% in Australia, compared to 0.2% in the United States. Data reported in Table 8.1 are indicative, i.e., 12,784 of Australia's 762,244 students were homeschooled, and this number did not include unregistered homeschoolers. Additionally, Queensland (QLD) and Western Australia's (WA) data do not represent the high proportion of those who were homeschooled using a distance education program most typically supplied by the state.

Why "Homeschooling"?

Redford et al. (2016) reported that, in the 2011–2012 school year, "91% of homeschooled students had parents who said that a concern about the environment of other schools was an important reason for homeschooling their child, which was a

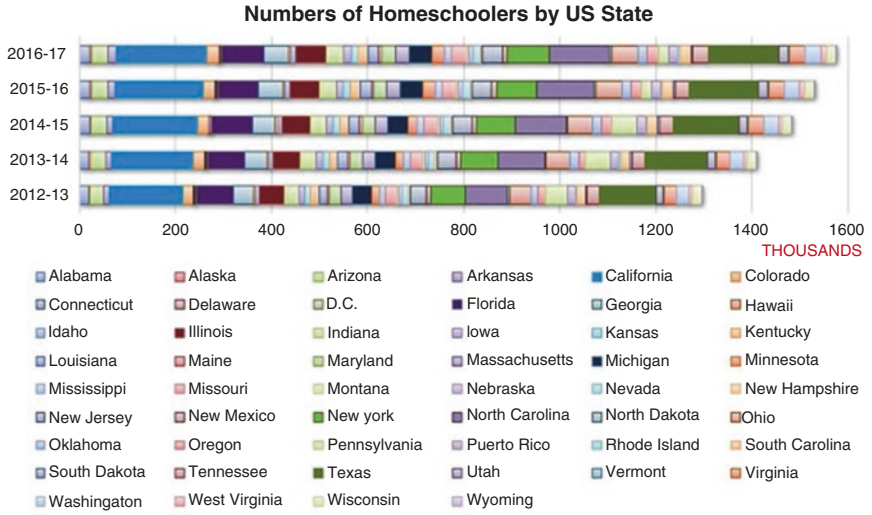

Fig. 8.1 Demographic state comparison of numbers of US students who are homeschooled (Source: Zeise, 2007)

Table 8.1 Demographic state comparison of numbers of Australian students registered as homeschooled in 2014 (Source: Homeschooling Downunder (2016)

State and territories	Registered 2014	Distribution (%)
New South Wales	3327	26.0
Queensland	1379[a]	11.0
Western Australia	2477[a]	20.0
Victoria	3582	28.0
Tasmania	660[b]	5.0
South Australia	1075	8.0
Northern Territory	85	0.5
Australian Capital Territory	199	1.5
Total	12,784	100.0

[a]Indicates likely underestimate
[b]Indicates 2012 stats

higher percentage than other reasons listed" (p. 11). The nature of such concern is suggested in a case study of parents of homeschooled children by Kendall and Taylor (2016), albeit that the sample of cases is small and each of the seven children involved had been diagnosed with special education needs, six of the seven with autism. Their findings revealed three major themes.

First, teachers and principals were seen as lacking proper understandings of the social, emotional, and learning needs of the respondents' sons and daughters. If correct, any inadequate conceptual base would have been a delimiting factor in what and how the teachers themselves might engage with these children in setting up

access, models, practices, and opportunities as students and in the principals' leadership in establishing and successfully nurturing an inclusive environment. Any such effects may have projected images to these students that their teachers and principals were out-of-touch and insensitive, and irrelevant or ineffective in what they were perceived to be doing—thus sapping students' willingness to engage genuinely in classroom and school-related academic, social, and personal learning.

Second, parents perceived educators as being reluctant to recognize and use parents' potential input and partnership in developing better understandings of their children and their children's needs. Again, if this were so, it would have further limited what might otherwise have been done by the school for these children and help them flourish as young people in relation to achievement and developments in thinking, behaviors, and motivation. The parents believed themselves to have lacked the access and contributory participation that in our understanding of engagement (see Chap. 1) is so necessary for its optimal occurrence and benefit.

Failure to flourish is reflected in parents' perceptions of the deleterious impact the schools were having on the health and well-being of their sons and daughters—the third of the themes that Kendall and Taylor (2016) reported. The parents cited effects accumulated over time that were so devastating that they could no longer leave their children at their mainstream school or classes, e.g.:

> He's got into such a bad stress phobia kind of state about school, he had a nervous breakdown … we said, look this is not working, it's not going to work, we can't make him fit into the system, so we're going to have to look into home education. *Parent D.* (Kendall & Taylor, 2016, p. 303)

Kendall and Taylor's (2016) small-scale study illuminated findings from larger research earlier (e.g., Granite & Graham, 2012; Kidd & Kaczmarek, 2010; Parsons & Lewis, 2010; Tissot, 2013) that echoed Aron's (2006) observation of incongruence of needs and provision for some students. They also shadow what Corner (2017) recently reported in that many teachers regarded their professional capacities as inadequate in their attempts to cope with difficulties arising when students consistently acted in ways Aron had described as "a range of behaviors incongruent with public school settings" (Aron, 2006, p. 32). While Kendall and Taylor's (2016) research with parents had been concentrated on those of students with autism spectrum disorders, similar findings of concern have been noted regarding the suitability of mainstream schools for students with speech, language, or communication difficulties (Archbold et al., 2015), gifted children (Yuen et al., 2016), and culturally diverse children, particularly those from minority cultures (McIntosh, 2016).

Certainly, research such as that reported previously has informed us that mainstream education alone has not yet functioned as the universal panacea we would like it to be. In a schooling context, students' academic, social, emotional, and behavioral needs require recognition and professional accommodation (Archambault et al., 2017; Finn, 1989; Jolivette, Stichter, Nelson, Scott, & Liaupsin, 2000) if young people are to flourish in their schooling engagements. This is a requirement at the face-front levels—the lessons, routines, and tasks of daily scholarship—and in the know-how of "getting with it" if engagement is to be part of students' unrestricted personal and social repertoire.

What Are Alternative Education Programs and Whom Do They Serve?

Alternative education programs are diverse and range from attempted accommodations within mainstream schools to those in many different types of settings outside traditional schools. External settings range from homeschooling through to alternative schools with various names suggesting the program adaptations on offer such as flexible learning centers or positive learning centers, to custodial or institutional locations such as juvenile detention educational units and hospital schools. In its statement on Alternative Schools and Programs for Public School Students at Risk of Educational Failure, 2007–2008, the National Center for Education Statistics (NCES) (Carver, Lewis, & Tice, 2010) used the following description to determine what alternative provision had developed across the nation:

> Alternative schools and programs are designed to address the needs of students that typically cannot be met in regular schools. The students who attend alternative schools and programs are typically at risk of educational failure as indicated by poor grades, truancy, disruptive behaviors, pregnancy, or similar factors associated with temporary or permanent withdrawal from school. (p. 1)

The NCES study recorded 10,300 district-administered alternative schools and programs operating in the school year. Of these, 37% were sited within mainstream schools. A year later, Gutherson et al. (2011) noted the extraordinary breadth of focus and range of facilities that parents, communities, nongovernment organizations, and governments had established as alternative education—along with what schools themselves had attempted to do to reconnect these youngsters to mainstream schooling.

In Australia, by 2014 there were about 900 alternative education programs (AEPs) serving about 70,000 young people (te Riele, 2014). More than 97% of these programs provided for students at risk of non-completion of schooling and for early school leavers. Other substantial categories were for those suspended, excluded, or expelled as students from school and young people who were neither employed nor attending school. Similar to the US alternative education offerings, these Australian programs were varied but shared a mission to provide critical educational opportunities for young people otherwise missed due to their nonattendance at school or through dysfunctionality in their connection with the school. In noting the variation and commonality of mission in Australian alternative education programs, te Riele (2014) remarked that:

> In some ways, this is the closest we come to a definition of flexible learning programs. Many programs catered for (almost) all categories listed, but some had a more specialised focus, for example, on Indigenous young people, homeless young people, or pregnant and parenting young people. (p. 39)

What Are the Characteristics of AEPs?

The NCES description of what constituted alternative education had provided an operational extension of Aron's (2006) earlier delineation to specify those "typically at risk of educational failure (as indicated by poor grades, truancy, disruptive behavior, pregnancy, or similar factors associated with temporary or permanent withdrawal from school)." This development was taken a little further by Porowski, O'Conner, and Luo (2014) after examining how 43 US states and the District of Columbia had explained their policies in providing alternative education for those of their students who were failing at school or were at risk of doing so. They considered that programs this had engendered might be defined broadly as:

> educational activities that fall outside the traditional K–12 curriculum—[and] frequently serve students who are at risk of school failure. Because individual states or school districts define and determine the features of their alternative education programs, programs may differ in key characteristics, such as target population, setting, services, and structure. (Porowski, O'Conner, & Passa, 2014, p. 1)

They noted that characteristics of these programs, while varied, traversed four key dimensions, *whom the program serves, where the program operates, what the program offers,* and *how the program is structured*, specifically:

- *Whom the program serves* (grade levels and ages and target population). In most states, alternative education programs target secondary school students. Maryland may want to focus its definition of alternative education on secondary school students to comply with Senate Bill 362, but the definition should cover all grades because Maryland programs serve students from pre-K to grade 12. While it may be appropriate to target students with behavioral problems, as most states do, other target populations to consider include students with academic challenges, students with attendance problems, students at risk of dropping out or who have already dropped out, and students who are pregnant or parenting. Some states define the target population for alternative education as students who are unable to benefit from a regular school environment.
- *Where the program operates*. Alternative programs can operate within a school, outside the school (e.g., in a juvenile detention center or hospital), or as a standalone school. Some states include homeschooling in their definition of alternative programs.
- *What the program offers*. If the definition specifies services to be offered, it should recognize their variety, including regular academic instruction, counseling, social skills and life skills training, workplace and job readiness, and behavioral interventions.
- *How the program is structured*. Some alternative programs operate on weekends, on evenings, or during the summer. The definition should specify how much instruction is needed for an alternative program to exempt students from compulsory attendance (Porowski, O'Conner, & Luo, 2014, p. 17–18).

Gutherson et al. (2011) drew together research across several countries to identify characteristics of alternative education that "are key to achieving positive outcomes." His assertion is that four characteristics are fundamental, notably that the provision is:

- Flexible and individually tailored.
- Addressing a breadth of needs.
- Based on accurate assessment of need.
- Delivered by caring and knowledgeable staff and supported by continuity of strong relationships (Gutherson et al., 2011, p. 7).

Are AEP Practices Effective?

Alternative education is not so much concerned with the geography of the sites of schooling, as with the options available both within and beyond mainstream settings for alternative programs to be developed and delivered in a multi-optioned, multi-pathway, and multi-transition conceptualization. Students not fitting well with mainstreaming are seemingly better placed with more options and pathways accessible through alternative education to engage with schooling successfully. Porowski, O'Conner, and Luo's (2014) account of "whom the program serves" widened description of disengagement risk from the problem-behavior emphasis of earlier definition to include academic challenge, dropout and other attendance issues, and pregnancy and caring responsibilities. This opened issues of social justice that appeared inherent in Aron's (2006) observation that some students' needs were incongruent with mainstream's capacity to provide for them. These are important issues that have been taken up elsewhere (e.g., Mills et al., 2016) to remind us that the students Aron had in mind had rights to fulsome access and help in engaging opportunities to learn and flourish irrespective of breakdowns in their participation and fit with mainstream schooling.

The key question is whether alternative education is effective in meeting the needs of these diverse student groups who have experienced marginalization and exclusion and are facing difficulties in different arenas of life. Having examined several of these settings, McGregor and Mills (2012) concluded that young people were indeed receiving practical support at the AEPs. In their observation, school structures, curricula, and pedagogy had been constructed that:

> made the school attractive ... students felt like equal partners in the teacher- learning relationship. The curricula provided sought to support students obtaining part-time work ... whilst also providing students with opportunities to obtain Year 12 matriculation, university entry, vocational qualifications and life skills. ... a 'full service' philosophy of education was clearly evident at our research sites. Also fundamental to this philosophy was the supportive web of relationships amongst staff and students. (p. 859)

McGregor and Mills' account (2012) is reflected in the voice data of AEP students elsewhere. For example, in research for the Australian Youth Affairs Coalition

(AYAC), Lampas' (Lamas, 2012) respondents who had moved voluntarily or been shifted into alternative education programs gave very positive accounts of their AEPs. They saw as highlights of their AEP experience the flexibility of the school environment, benefits in working with adults who saw them as having potential rather than as troublemakers or underachievers, and relief and pleasure in experiencing respect and a sense of belonging in their school (AEP) contexts.

McKeown (2011) reported similar positive accounts through 2 themes that emerged during interviews with 12 young people attending an Australian nongovernment AEP. These young people believed that they had ready access to one-on-one support and they were joyful about being involved with the AEP's learning programs—the availability and participation reflecting the essential properties of engagement that we have mentioned throughout this book. Helpful staff and a holistic approach that included a parenting program were also recognized, valued, and similar to what Lampas (Lamas, 2012) had reported of student views and what parents in Kendall and Taylor's (2016) study had seen as missing for their children with special needs while in mainstream schooling. The common thread to these studies is that the young people believed that AEPs had provided them with a positive experience of education—albeit that sustainability and longer-term implications had not been part of the evaluations and that parents' participation is an appreciated addition.

In relation to outcomes across different settings, Labyer (2004) completed a comparative study of two alternative education settings in Southwest Oklahoma and differences recounted for these locations and traditional schools for educationally disengaged students. One setting operated to provide AEPs for students from five high schools, while the other was an on-location site for similar students established as an extension of a high school. Both provided individualized, ability level instruction and a counseling component in their programs. Both were considered effective as intervention programs for students who had left high school early or were at risk of doing so.

More widely, evidence from Australian studies (Baroutsis, McGregor, & Mills, 2016; McKeown, 2011; Mills & McGregor, 2010; Mills et al., 2016; Plows, Bottrell, & Te Riele, 2017; Smyth, McInerney, & Fish, 2013; te Riele, 2014; te Riele, Wilson, Wallace, McGinty, & Lewthwaite, 2017; Thomas, McGinty, te Riele, & Wilson, 2017) and international studies (Gutherson et al., 2011; Morrissette, 2011; Yuen et al., 2016; Zolkoski, Bullock, & Gable, 2016) of AEPs indicate that a common purpose is to provide opportunities offering new start and third-space thinking that are better suited to circumventing lingering negativity that many AEP students carry into their learning and growth from personal and previous school experience histories. For example, te Riele (2014), in her review of Australian AEPs, stated that AEP practices are responsive in ways suggestive of engagement toward valued outcomes that she considered are "at the heart of successful flexible learning programs" (p. 48). Specifically, Australian AEP practices are contributory to significant student outcomes as outlined below:

(1) "Better futures" such as "recognized credentials [that] form a key to open doors to future opportunities for work or further study

(2) Successful learning including academic achievement and engagement with learning as a process
(3) Personal growth and well-being
(4) Recognition from community
(5) Contribution to the community (te Riele, 2014, p. 48)

How Are AEP Practices Related to Engagement?

Given the important contribution to student outcomes that AEPs can make in helping students recover connection with schooling, relating to others, and finding a purposeful personal future, it is essential that programs are evaluated to determine their effectiveness, and specifically, how engagement is considered, cultivated, and enacted. Currently, there is a paucity of research examining the engagement issue beyond identifying effective practices as opposed to conditions underpinning such effectiveness. There are challenges in doing so, perhaps due in part to the variation in programs that are offered. As noted by te Riele (2007):

> The multitude of programs has led to confusion and inefficiency. Finding the right program can be difficult for young people, and their parents and youth workers. Communication between programs, to develop better pathways and to share expertise, is hindered by lack of stability or lack of knowledge about other programs. Communication between practitioners and scholars with an interest in alternative education is hindered by lack of a shared framework for understanding the variety of educational alternatives. (p. 53)

This difficulty was also identified by Bloom (2010) within an American context in relation to alternative, second-chance programs for young people who leave mainstream education before completing a qualification. Bloom asserted that the majority of such programs had not been formally evaluated for effectiveness. He ventured that rigorous evaluation methods may not always be appropriate yet he disparaged the "gap between the strongly held views of practitioners who believe they know what constitutes 'best practice' in youth programming" and "the knowledge base researchers have built from rigorous evaluations" (Bloom, 2010, p. 94).

Evaluation reviews that have been completed tend to focus on how AEPs function, and on identifying effective practices without giving due attention to their link to student engagement. An example of such an evaluation review is Gutherson et al.'s (2011) report. This review provided evidence regarding characteristics of effective AEPs, including quality relationships, person-centered approaches, flexibility and accessibility, effective assessment of need, appropriate curriculum, delivery by skilled staff that had been monitored and assessed as effective, as well as wider support from families and communities. From an engagement perspective, these effective practices can be understood as social and institutional facilitators that re-engage marginalized youths in meaningful learning that leads to the expected outcomes, as identified by Gutherson et al. (2011), though this engagement link was not elaborated in the report. These expected outcomes included students' improved academic attainment; school attendance; sense of direction; well-being and

relationships with staff, families, and peers; as well as their positive progression routes and reductions in their disruptive, violent, or offending behaviors.

Given these outcomes, it is important to understand why alternative education works from an engagement perspective. This is important as past review reports, such as Gutherson et al. (2011), seldom explain clearly why, and in what ways, these effective practices promote engagement or how engagement has led to desired outcomes. Engagement in AEPs is of particular concern to marginalized and disengaged students who are struggling in the midst of a complex period of change during adolescence to emerging adulthood. Youth in AEPs in this transitional life stage may have additional developmental challenges due to poverty-related logistic barriers, a lack of conducive affect, and knowledge about how to deal with instability. Any of these factors likely would hinder their experiential learning about socialization and socializing, and of how to move beyond reproductive habitus into more active engagement in explorations of their identities, aspirations, and possible future life spaces.

In the context of student engagement, we highlight four important considerations. First, attendance is not a guarantee of engagement in opportunities that raise educational attainment, or of doing so productively. It is a necessary but insufficient condition. Second, it is questionable whether a successful transition should be measured by a single move from one institution to another, for example, an AEP to an apprenticeship or employment. Any such move suggests initial engagement, but it is a single snapshot in time and does not necessarily mean that long-term goals such as sustainable employment will be reached. Third, further knowledge is needed around the disengagement and engagement processes that occur throughout developmental trajectories as youth move toward emerging adulthood. As noted by the Australian Research Alliance for Children and Youth (ARACY), "disengagement is often framed as an individual problem"; however, "structural factors play a significant part in exposing or protecting young people against risk factors" (ARACY, 2008, p. 3) which can then contribute to disengagement and lead to fewer opportunities to access education, employment, and sustainable welfare. In reverse, enabling structural influences can lead to sustained engagement. Finally, a lack of parental involvement in alternative settings was noted. However, Labyer (2004) acknowledged that this did not necessarily indicate a lack of parental support for their sons and daughters outside the school setting, given the positive assertions which had featured during the schools' intake interviews with parents. It does, however, suggest in light of McKeown (2011), and Kendall and Taylor's (2016) subsequent evidence, that these two AEP structures were yet to recognise an important ally.

More importantly, as Lamas (2012) noted, many young people in AEPs are "facing the most serious and significant barriers to engagement" (p. 5) such as needing to escape violence or bullying or dealing with mental health issues, social problems, and self-confidence issues and tend to have lower levels of family support. Under such circumstances, these young people would be vulnerable in education settings. They would need teachers who recognized vulnerability and its differing factors and triggers to its various manifestations across their student groups. They would need teachers who could, and would, operationalize this recognition as they planned,

resourced, implemented, highlighted, monitored, assessed, and provided feedback on learning opportunities in their programs for these young people. They would need teachers whose flexibility would act as a visible and present core enablement to helping students to attend school and to "get with it" in recognizing and participating in learning opportunities, to celebrate successes no matter how small, and to value learning, and to see learning as opportunity for recognition, participation, success, and celebration.

This pedagogical emphasis is evident in AEP reviews in Australia and internationally (e.g., Gutherson et al., 2011; te Riele et al., 2017; Thomas et al., 2017). Operations of the AEPs observed included the re-engagement and retention of young people into education and training, flexibility of approach, and support in multiple areas of well-being and functioning along educational pathways that would lead to positive outcomes. While no test data were available to substantiate the claims of academic improvement reported in the Bartlett, Ng, Jackson, and Hwang (2015) study, indices such as better attendance and behavior records do support the positive outcomes of behavioral engagement clearly represented in student, teacher, and parent voice data. These AEPs had presented opportunities to recognize, and to support, the personal and social needs of young people involved, as well as their academic and behavioral ones.

Based on observations, document examination, interviews with staff, and surveys of students, Labyer (2004) highlighted the presence and importance for at-risk students at AEPs to have an "adult support system committed to them on an individual and personal basis, as well as a curriculum related basis" (p. 145). This research-informed statement offers important insights for understanding student engagement in alternative education. Students told Labyer that they had received more positive feedback from their AEP teachers, though it is unclear whether this was related to indicators of their outright performance alone, or pointers to its enablers such as the nature, function, and strength of attention and engagement in academic and social opportunities. However, students also spoke of the value of having high-efficacy teachers, together with individualized programs that these teachers prepared for each student, and of belief that these teachers helped students recognize that they were able to learn. Ascribing these characteristics to their teachers suggests that respondents were critically analytic not only about what was happening in their schooling but also about what aspects of teaching approaches were conducive to learner-based development programs. Their commentary speaks to engagement. For example, a telling statement was that they were more likely to attend school when in AEP classes than they had been previously, indicating their own perception of better engagement, at least of behavioral engagement in being there at school. Of course, there is an assumption about students' willingness and readiness to be open and active in engaging in educational opportunities, but the greater attendance, academic, and well-being outcomes already reported for students in alternative settings (Gutherson et al., 2011; te Riele et al., 2017; Thomas et al., 2017) speak positively to the conjecture that their educational engagement, too, would be better. It may be that students' voice regarding their needs and progress is an important part of the pedagogical mix to foster such willingness and

readiness to engage, particularly where options exist for small-step successes and better fit between students' developing self-awareness and efficacy across time.

In reviewing Australian AEPs, te Riele (2014) stated that valued outcomes should be aligned with:

> … the actions taken, and the principles that provide the foundation for the program. This need for alignment is also signalled by the enabling condition of having a shared vision. When all staff are 'on the same page' the program is more likely to achieve successfully the outcomes it is aiming for. A shared vision is supported by opportunities for carrying out ongoing reflection. (te Riele, 2014, p. 79)

From her perception of the alignment of these four dimensions, te Riele (2014) captured a basis for framing what constitutes quality flexible learning programs (Table 8.2) that undoubtedly promote and sustain engagement.

Hylands (2010) offered another perspective to understand student engagement, especially in AEPs where part of the schooling plan is focused on helping students find employment. Seeing the possibility of finding a job can be an important outcome-focused motivator to sustain engagement for students in AEPs where this happens. Hylands (2010) wrote of the importance of providing alternative settings and pathways for disadvantaged youth after investigating concerns held by the Gateway Learning and Employment Network, an Australian group attempting to improve outcomes for young people. The group's concerns were that, in their experience, disadvantaged students were facing increasing difficulty in accessing transition pathways from education settings to sustainable employment, especially when difficult economic circumstances are present. Hylands (2010) concluded that alter-

Table 8.2 Four dimensions of quality flexible learning programs (Source: Te Riele, 2014)

Principles	Actions	Conditions	Valued outcomes
Commit to each student's needs, interests, and rights	Create "meaningful learning opportunities"	Provide flexibility	Build "better futures"
Recognize and build on every student's strengths	Provide "significant support for learning"	Provide "systemic support and resources"	Enable "successful learning"
Value "life and learning as meaningfully connected"	Build "genuine and caring relationships"	Provide "engaged and knowledgeable staff"	Enable "personal growth and well-being"
Provide "an education that is genuinely enabling"	Provide "practical support for living"	Ensure that there is a "shared vision"	Program and student "recognition from [the] community"
	Engage with the community	Establish "productive partnerships" with businesses and service providers	Students "contribute to [the] community"
	Staff reflect, innovate, and continually improve the program		

native educational settings and pathways provided youth with easier, and additional, access to courses that had enabled them to progress through the Victorian Certificate of Applied Learning at their own pace, and to vocational training and sustainable employment. It is likely that this outcome provided significant impetus to sustaining students' ongoing engagement as we had seen similarly in Chap. 7 in Jacob's self-report as a once-disengaged adolescent who had successfully learned horticultural knowledge and skills through opportunities presented in a social enterprise engagement.

Conclusion

We have outlined positive indications that "not fitting easily" into mainstream education may be seen in engagement–disengagement terms and that those who have such engagement issues have alternative conduits of opportunity in AEPs that many seem to have accessed to their advantage. Paradoxically, there is need also to ensure that any such provision does not compromise access and participation opportunities by imposing narrow training for low-level employment options.

Mills and Gale (2011) called on teachers to create educational opportunities wherein the nature of access and participation would "transform the life experiences of and open up opportunities for all young people, especially those disadvantaged by poverty and marginalized by difference" (p. 90). This suggestion followed their reflection on the influence of habitus and specifically on how those with a reproductive habitus are constrained by social conditions and conditioning that impact how they see themselves and confine "possibilities to those they see to be suitable for the social group to which they belong" (p. 90). The constraining selectivity involved in this predisposition is a matter of engagement. Where social conditions and conditioning are of poor quality, their influence on how well students see and engage in accessible opportunities to learn and flourish is curtailed. As we have seen, many of those who have become students in AEPs had been subjected to such constraints.

In comparison, support from an alternative source toward more transformative habitus may help students to "recognise the capacity for improvisation" and "look for opportunities for action" (Mills & Gale, 2011, p. 90) potentially opening up previously unconsidered pathways and prospects for personal development and benefit. If teachers succeed in providing access to such support and mentoring students in using it, then students' capabilities and aspirations are likely to widen. We have shown in Chap. 5 how this empowering process is possible when disadvantaged students' voices were utilized to promote reading engagement. Similarly, AEP teachers who adopt authentic approaches to education that are mindful of marginalized students' views and perspectives will better promote and sustain their learning engagement. This undoubtedly will contribute to re-envisaging futures that reflect what Freire (1998) had championed as a basis for liberation of individuals from oppressive and depressing social and personal circumstances.

But does this liberation occur within the education that is happening in AEPs? There is evidence that children and young people are in happier places, are attending more regularly, and are accruing academic and behavioral benefits and improved well-being in comparison with their performances in their previous educational setting. We consider this to be the result of the greater incidence, quality, and consistency of their engagement. Nonetheless, while acknowledging that supportive environments and engaging pedagogies are evident, Smyth et al. (2013) raised a question of whether youth who attend AEPs are further marginalized, rather than liberated by curriculum choices accessible to them. They observed that AEPs they had investigated had narrower curriculum choices with greater focus on vocational certificates than most mainstream schools and that, at times, what was offered was misaligned with students' interests and talents. They concluded that this narrowing logically resulted in missed opportunities. They argued further that AEPs should provide rigorous curriculum to avoid limiting youth into low-skilled, low-income job pathways.

Their contention reflects Mills and McGregor's (2010) earlier warning that more supportive, warm learning environments may in fact hide the reproduction of academic disadvantage unless AEPs' curriculum is intellectually challenging and pathways toward work and additional education are present and accessible. Rigorous curriculum is intended as an additional option to, rather than a replacement of, what Mills and McGregor (2010) had seen in the flexible outlook, provision, and operation of AEPs. However, changing what a program currently offers so successfully for so many will need careful planning and monitoring to safeguard the growth of those for whom this option is intended without contorting the context of progress within which others are doing so well.

We think Terry would join us in advocating for further longitudinal research to explore engagement as a phenomenon in the learning and well-being of young people who, like him, are attending AEPs, both during schooling and in their post-school destinations and lives. This may be particularly important in relation to better understanding the affordances of alternative education in providing stability, effectiveness, flourishing, and valued outcomes to an increasingly diverse student body.

Chapter 9
Engagement for What Purpose? Engagement Toward What Outcome? Empowering Engagement for Students from Challenging Backgrounds

Case Vignette: Three Academics Walk into a Bar
Setting: Three academics reflecting on their understanding of engagement *with drinks*

Situation**:** Planning for writing the final chapter

Persons involved: Focal engagee, Joe, a barman; other discussants, Clarence, Brendan, and Steve (authors of this book)

Clarence had started it. The book! He'd tussled with the puzzle for years—that key concept that brought together all he knew about motivation and what he saw as variable performances by kids and teens in classroom situations.

"Engagement, engagement, engagement." What locks did the key fit? He'd studied all sorts of kids, motivated and not-so-motivated, bright and not-so-bright, determined and not-so-determined, spirited, and etc., well you have the sense of it, and particularly kids dealing with disadvantaged circumstances. What takes them all over that step of personal disadvantage into opportunities for better circumstances provided in classrooms, homes, workplaces, and all such contexts?

He'd convinced Brendan and Steve to join him in the Springer proposal. Over the years each of them had done much more than just dipped their toes into the stream of theorization and practice in the area. They had provided revealing perspectives on "engagement." They'd joined. Springer had said yes.

Eight of the nine chapters were in good shape, and here they all were gathered at Joe's to iron out the final chapter.

"What'll it be?" said Joe. "What indeed," all three authors thought! They thought back to the periods of energy, debate, disagreement, and accord, times characterized by productivity, and others by delay in meeting deadlines for drafts or reviews, of

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what had followed after reviews, and of where the flow across the eight chapters that were now all but done might be taking them in concluding the book. Had they done enough? They thought, too, of where overlaps needed to be revisited and checks made for omissions that may have occurred in what they had proposed. The reflection was engaging.

Joe watched and waited. He seemed to be listening in on the discussion, but remained silent. Brendan broke the silence. "Joe, we'll be with you in a minute." Turning to Clarence and Steve, he said, "What have we said that's different and that might make a difference?" Steve suggested that the social aspects of engagement were a strength of the work, thus far, and that this was not a common theme elsewhere. Clarence agreed and added that we had talked up the complexity of "engagement" as a phenomenon. Brendan said that comment reminded him of thinking through perception of another's engagement as something that needed to be grounded in arguments about the "engagement for and in what" and "who is setting the agenda" and "what alternative engagement might an apparently disengaged person be having."

Joe looked at Brendan, cleaned a glass, and nodded. Steve and Clarence noted Joe's interest but figured he'd heard hundreds of patrons engage in discussions of all kinds and simply was passing time until an order was made. Clarence continued that in relation to the complexity of engagement, we had signaled concerns relating to any simple linear model of the phenomenon. Steve said that the vignettes at the front of several of our chapters were a difference in the work. They were different in several ways, but they had given the text a practical edge making for looking-through-the-keyhole entries into the content that followed. Brendan agreed and asked whether the vignettes would help them now to unpack the definition of "engagement" in ways that illustrated what educators might find useful and usable in addition to contributions the text intended for research and theorization.

What was their definition of engagement? What had they written about? Joe stared at Steve, while he recleaned the glass. Clarence sprang into the conversation with "active participation," and there followed a staccato of features from early chapters as the three of them retrieved key variables—"opportunity to learn," "opportunity to engage," "enablers to guide and sustain engagement," and "accessibility of opportunity to have and to do these things." Soon after, "knowing how to engage" and "the source of such knowledge" followed along with "learning about, recognizing, and using the conditional topography of engaging and engagement."

They then reflected on the existing unfinished draft of the final chapter. Clarence was happy with the developing summation. Steve anticipated the next step was capitalizing the summary to build the conclusion—and all three wondered whether there might be a vignette for the chapter.

The three academics noticed Joe fidgeting. He fixed on Clarence. "What'll it be?" he repeated, pointedly. Clarence engaged. "It'll be fine," he said. "And two Cloudy Bay Sav Blancs and a coke, if you please." Joe smiled, "Sure, but what's the conclusion?"

Introduction

Engagement as the "visible manifestation of motivation" (Skinner & Pitzer, 2012, p. 135) promotes and sustains opportunities to learn, aspire, connect, and flourish. It is not only a desirable outcome of itself, but also a catalyst for academic, social and personal development. In the preceding chapters, particularly Chap. 2, we outlined literature and research related to cognitive and social facilitators of engagement. In the context of educating disadvantaged students, these facilitators, for many of these students, are nonexistent or inaccessible due to underdevelopment in relation to what classroom learning and assessment are required of individual students. The challenge is to support engagement for these students who are at risk of disengagement by attending to the absences or mediating inefficiencies of enablers. We argue that in doing so, it is promising to focus deliberately on what each student sees as potentially meaningful in a learning encounter and on the personal and collaborative circumstances at hand through which he/she may be assisted in framing and actioning an engaging response. Such deliberate attempts to support responses that promote engagement are essentially a negotiated process which requires teachers and parents to carefully consider the perspectives and preferences that are at play. These are attributes of individual students, of themselves, and of authorities that have formulated curriculum, assessment policies, and frameworks that direct engagement toward particular outcomes. As expected, contradictions abound in relation to key engagement questions such as what to engage students in, for what reason, and toward what outcomes, which are essentially a dynamic interplay of personal capabilities, social interaction, and relevant constraints and affordances derived from classroom and other learning settings linked to a wider policy context. Therein lies hope for intervention. It is especially hopeful among students from disadvantaged backgrounds whose cognitive enablers for engagement are likely underdeveloped. As engaging and engagement are more than an individual's actions, we advance contextual dynamics of engagement that situate what students do when engaging within the dynamic interplay of personal and contextual influences on their choices, decisions and actions. This perspective shifts the focus of consideration from whether students have particular cognitive attributes, to how their engagement might be aroused or established through individual and collaborative involvement in a specific activity (Jarvela, Jarvenoja, Malmberg, Isohatala, & Darvasi, 2016).

In Chap. 3, we examined the role of accessible learning environments and materials to the learning process, noting that when tasks and materials are not designed with access and equitable opportunities for a diverse set of learners in mind, engagement is depleted, if not denied. We explored the important role of social skills in the process of learning in Chap. 4, highlighting the manner in which social skills often function as academic enablers facilitating social engagement and making learning situations more collaborative and supportive for many students. We have shown, in Chap. 5, how changing students' participation in reading can be promoted through seeking and acting on student voice, explicitly regarding what students have to tell

us about the purposes, media, and approaches that they feel better enable them as readers. In Chap. 6, we juxtaposed capable students' reasons for mathematics learning and their perceptions of specific classroom activities to highlight a lack of challenge as an important disconnect responsible for dampening their engagement. In Chap. 7, we discussed reconnecting pedagogy that promoted re-engaging with engagement itself for youths in social enterprise learning. In Chap. 8, alternative education programs exemplified how support and social relationship rebuilding facilitated marginalized young people's pursuit of purpose, capability, and opportunity to mediate their learning success.

A common message in these chapters has been that disadvantaged students' dynamic participation becomes more evident when they receive tailored opportunities and support in a specific learning setting. In these settings, they are encouraged to take a shot and where educators involved in the tailoring recognize that students' success, however small, is the object of the exercise. Importantly, the point of departure is not whether students are motivated or capable of engagement, but whether the learning is perceived by them to be meaningful, interesting, personally relevant, and related to their futures. Our discussion in Chaps. 3, 4, 5, 6, 7, and 8 addresses powerful and supportive environments and arrangements that re-engage those whose histories as learners have been engagement-poor.

This process perspective of engagement aligns with Paulo Freire's understanding of empowerment. Freire, in his seminal work, *Pedagogy of the Oppressed* (Freire, 1972), argued for empowering disenfranchised individuals through education that would enable them to take control of their own learning and to develop deep understandings of their roles in a community through active participation. From this perspective, engagement's critical role in education for social justice is highlighted. Empowering it for students from disadvantaged backgrounds in equitable learning requires special attention to promoting opportunities for participation and support through accessible social networks. While personal attributes, such as self-efficacy, still play important roles in the engagement process, it is imperative to recognize that the type of learning tasks, levels and forms of support, and the nature of interaction are significant contextual facilitators promoting engagement and enabling students to see their roles and possible contributions within a learning community and beyond. By way of illustration, we described the development of such a community in Chap. 5, where Year 5 students collaborated with their teacher to create a new community of readers based on a set of shared norms governing reading activities. Students played an active role in this reform process, and continuous participation nurtured this community as readers and in development of their reader identities. They had been low-achieving and disengaged readers. Then, through active collaboration and participation, the students reformed the silent reading sessions of their classrooms. They created a newness about their reading environment wherein reading became personally and culturally relevant and enjoyable. It will not be a surprise to adept teachers that most of these students had improved reading results.

Our contribution to the research and practice of engagement is a move away from conventional linear-relational understandings that rely on engagement facilitators and indicators arising and operating solely within, and for, an individual. Our delib-

erate attempt to shift the focus of engagement research and practice is consistent with Lawson and Lawson's (2013) social-ecological framework. It also aligns with engagement research that examines collaborative and social nature of engagement (Jarvela et al., 2016) and reinforces Freire's (1972) advocated position of education for empowering students from oppressed backgrounds.

In this final chapter, we assert that engagement research and engagement programs for children and young people who learn under challenging conditions need to include a critical stance. Important questions extend basic considerations of whether or not these children engage in school or whether their engagement promotes achievement. Significantly, they address the why's, how's, what's, and when's of engaging and, though this, contribute to the building of appropriate and workable declarative, procedural, and conditional knowledge of engagement and of being engaged. Engagement involves decisions about, and commitment to, focus and effort expenditure. Making informed decisions and commitment requires a value judgment on what is involved in comparison with other options, which is an important aspect that has not yet been given due research attention. The current policy and reform focus driven by neoliberal ideologies predominantly is about utilizing engagement to improve achievement for disadvantaged students without necessarily questioning whether, how, and with what effects students' own perspectives on engagement affect its uptake. To offset this, we need to ask questions of "engagement for what" and "engagement toward what," as not every kind of engagement is worthwhile (Biesta, 2009). Answers to such questions might inform us about why sometimes, ironically, disengagement may be a better decision than engagement for students.

In what follows, we revisit important contributions in the preceding chapters. Our goal is to provide a succinct statement regarding these previous discussions and how they inform the development of an engaging learning environments for children and young people in disadvantaged situations, mainstream schools, and alternative education sites. Following this, we attend to the distorting contextual dynamics derived from neoliberal ideologies that have impacted on learning and teaching especially in schools populated with students from disadvantaged situations. We highlight contradictions in policies and practices to emphasize that "engagement for what purpose" and "engagement toward what outcome" are of contextual importance if engagement is to be meaningfully promoted for disadvantaged students. We conclude this chapter, and the book, by considering engagement pedagogy in light of these critical questions.

Empowering Engagement

Access and Opportunity to Learn

Two concepts—access and opportunity to learn—are fundamental to instruction and assessment that promotes and sustains students' learning engagement. These concepts also are essential for equitable education for all students. Meaningful

participation and engagement in learning events therefore is predicated on access, and once accessibility is achieved, frequent opportunities to engage in learning and use usable knowledge are possible (e.g., Elliott, Kettler, Beddow, & Kurz, 2018; Kurz, 2011).

In Chap. 3, we acknowledged that all students are likely, at some time, to experience barriers that impede their access to effective instruction and testing. This is particularly the case for students from disadvantaged backgrounds, and teachers must be aware of this likelihood, knowledgeable about its environmental and psychological genesis, and strategic in reducing or eliminating the impediment. Theoretical work on instructional and testing accessibility continues to inform the professional database from which teachers draw declarative, procedural, and conditional knowledge and related skills (Elliott et al., 2018), and applied research will help build their confidence in selecting, exploring, and extending their repertoires of practice (Elliott, Kurz, & Schulte, 2015). This work has been advanced noticeably under the program of Universal Design for Learning (UDL). One of the three key UDL principles for instructional design is "Multiple Means of Engagement." Guidelines that follow from this principle are supported by research and provide options for recruiting interest in the learning material at hand, options for attending to a learner's sustained efforts and persistence with those materials, and, tactics to increase self-regulation enabling the learner to better manage his/her attention and effort.

Cognitive Load Theory is consistent with the UDL approach and useful for our purposes here in testing access and accommodation theory (Beddow, 2018). Cognitive Load Theory reinforces the notion that less is often more when it comes to learning. Cognitive Load Theory thus includes simplification of material with clarity of purpose. Both Cognitive Load Theory and UDL approaches focus on the interaction between a learner and the material—reading a story, completing a mathematical problem worksheet, or answering test items—with the intention of maximizing the design of learning materials and of testing tasks so that they allow students to learn, and, to show what they actually know and can do, as reflections of such learning. Learning tasks or test items that do not account for impediments in contextual dynamics associated with disadvantage may be too complex for those students, putting them at risk of loss of opportunity and of further affirmation of failure in their apprenticeships as students, learners, and able contributors to their own ongoing development and well-being. "Accounting," in pedagogical terms, is the deliberate and supportive refinement that teachers bring to their design, implementation, and resourcing of learning opportunities so that disadvantaged students can focus and engage with them readily and productively. To counter these concerns, examples of highly accessible instructional materials and test items were provided. Additionally, when instructional materials or test items cannot be changed, teachers can still facilitate access to, and support for, opportunities for their students by using strategic accommodations (or adjustments). These practical strategies involve making changes to what support a learner receives from a teacher or peer, time allowed to complete work or a test, and, more broadly, the conditions under which learning or testing occurs.

A substantial amount of research and experience with a wide range of learners, such as that described in Chap. 3, has resulted in five recommendations to improve students' access and opportunities to learn, viz., (a) design instructional material and activities that offer students choices in the ways they access the material and respond to it; (b) reduce extraneous content in instructional and classroom testing material to improve readability, decrease cognitive load, and focus on targeted knowledge and skills; (c) increase daily instructional time on content objectives in the intended curriculum to improve opportunities to learn important content that is also likely to be measured to document achievement; (d) design classroom tests that optimize access and maximize the likelihood that students can show what they know; and (e) match instructional and testing support needed to improve accommodation integrity and its effect on academic performance. When access and opportunities to learn are improved, meaningful participation and engagement follow. This particular chapter therefore has highlighted the importance of a dynamic context for supporting engagement at the task design level, and for facilitating students' active participation in learning using appropriately challenging activities that are inviting, assuring, and accommodating.

Social Skills: A Key Academic Enabler

Much of the research on engagement has focused on cognitive enablers such as self-efficacy and other forms of affective-cognitive resources. However, an important area of research that has not yet received sufficient attention is the role of social skills in promoting collaboration and social engagement for young people affected by their disadvantaged backgrounds. This is an important gap that can be reduced. Learning tasks in the twenty-first century have become more collaborative, and the need for researchers and educators to be better informed in redressing the associated shortcomings and hardship has never been so important. This is the case especially for children and young people who may not be sufficiently prepared to initiate, respond, and sustain collaboration and interaction during engagement in school and other learning settings.

Schools are social environments, and the process of schooling, which involves many other people, is a social process. Thus, connecting with adults and peers is a crucial part of the schooling process and in scaffolding opportunities for achieving learning outcomes wherein different forms of dialogues and negotiations are often involved. Children who relate well to others—listen, take turns, show respect, exhibit helping behaviors, and control their emotions—are liked by others. They find participating in school and its learning events easier and more positive than children who have difficulty relating to others in these ways. These relational or interpersonal skills are commonly referred to as social skills or social emotional learning behaviors (Gresham & Elliott, 2008).

Researchers have documented in dozens of studies that social skills are learned behaviors that not only facilitate relationships with others but also act to enable engagement—cognitively, emotionally, and behaviorally—and ultimately lead to achievement that is valued by schools and society. In Chap. 4, we reviewed research on the development of social skills, identified key social skills that teachers can teach, and provided a summary of helpful evidence from several research studies by DiPerna, Volpe, and Elliott (2002, 2005). Wentzel (1993) supported a theory of action that indicates that the causal influence of social skills on achievement in reading and mathematics is likely mediated through collaboration with others and engagement in actual learning events. These collaborative and participatory behaviors are strengthened and maintained by successful achievement. That is, in experiencing learning successes, learners' key social skills are reinforced. They listen to others, ask for help, stay calm when upset, follow the rules, and work with others. Thus, reciprocal relationships between many social skills, engagement, and achievement outcomes are built and become self-reinforcing.

We reviewed several programs that teach social skills (Elliott et al., 2015; Elliott & Gresham, 2007, 2017). These have been designed for all students, yet the research, especially that of DiPerna, Lei, Bellinger, and Cheng (2015, 2016); DiPerna, Lei, Cheng, Hart, and Bellinger (2017), has documented that students from lower income families and schools with larger populations of disadvantaged students benefit most from social skills

intervention programs. An example is the SSIS Classwide Intervention Program (Elliott & Gresham, 2007, 2017). This program uses a six-step evidence-based instructional process—i.e., Tell → Show → Do → Practice → Progress Monitor → Generalize—and resources to communicate to students the importance of recognizing and controlling their emotions. It also uses role plays to practice and refine key steps in using social skills at school, and self-monitoring procedures to focus students on how to critically evaluate their own behavior. Evaluation research on this program has concurrently assessed the changes in social skills on students' academic engagement and achievement, providing strong empirical support for the role that social skills play in these valued outcomes of schooling.

A key takeaway from the social skills research is that children who have developed skills to facilitate communication, cooperation, assertion, empathy, and self-control, engage more effectively with others, find school more positive, and generally achieve more. Their peers who have not successfully developed these key social skills can be helped to do so through the assistance of teachers who make social emotional development an explicit part of their instruction. Social skills are teachable. They are valuable academic enablers because they help students connect socially and emotionally with others and to optimize the cognitive abilities needed to engage with opportunities to learn and to achieve academically.

Student Voice

Engagement is an identity-focused concept. For those adept in using it, it answers questions such as "What should I spend my time on?", "Why study this?", and "What outcomes are probable and possible?". Conventional studies on engagement often use predetermined items in survey form to assess students' levels of engagement. This research methodology can be economical in capturing engagement responses from a large sample of students. However, it is limited by its decontextualized treatment of students' responses. In addition, it is likely that disadvantaged students' responses will produce a generally negative picture of their engagement. Particularly, disadvantaged students will often respond negatively to questions about their enjoyment and self-efficacy. An important consideration is the need for a more nuanced description of disadvantaged students' engagement within any specific context.

Seeking student voice is an important step in achieving such description. As shown in Chap. 5, disadvantaged students, who were encouraged to voice their views, concerns, and ideas, became more participatory and contributing in formulating an environment conducive to enabling and sustaining engagement. We showed similar results for disadvantaged young people in Chaps. 7 and 8, where the practices of alternative education and social enterprise-based learning build heavily on student participation and continuous action. Using conventional engagement questionnaires in these settings (classroom and alternative programs that include learners from disadvantaged backgrounds) may be helpful in some ways but is unlikely to capture moment-to-moment engagement changes as outlined.

As shown in Chap. 5, student voice is an engagement enabler. The logic of this operation is that recognizing and accommodating student voice invites students' participation, interaction, and collaboration in what happens in regard to the design, implementation, and monitoring of students' learning opportunities and their access to those opportunities. As can be imagined, incorporation of student voice is akin to promoting engagement that enables students to develop strong senses of agency and control in learning (Reeve, 2013). Revee's (2013) work informed us that agentic engagement relies on students' proactive contribution and interaction with the teacher. We add that promoting student voice, particularly among disadvantaged students and marginalized youth, depends very much on a teacher's awareness of the phenomenon and his/her good will, support, and care in admitting it into his/her pedagogical repertoire. Research on student voice has highlighted problematic issues for some teachers in its enactment—issues such as imbalance of power, tokenism, selective focus of particular voices, and treating student voice as a fixed and singular unit (e.g., Cook-Sather, 2006; Fielding, 2004). To capture the enabling power of student voice in promoting engagement, educators must be mindful of such pitfalls and use a committed and genuine approach which involves working on students' voiced concerns and aspirations and acting together with students to improve their access to, engagement with, and outcomes from, learning opportunities.

A key consideration in acting on, and with, student voice is to interpret students' views and perspectives accurately. Doing so will include attention not only to what is said but also to nonverbal responses such as gesture, eye contact, and body language. An interesting phenomenon is that teachers and educators often are constrained by classroom rules, task expectations, and demands when interpreting students' disengaged behaviors. For example, students' expression of boredom may be seen as unwillingness to work when a plausible alternative is that the task is genuinely boring due to incompatibilities of experience or inappropriate timing of the task (e.g., reading after lunch break as depicted in Chap. 5). To understand and act appropriately in response to student voice, it is important to situate it within

its relevant context and seek verification from students of the quality of its fit. Unless the verification process is clearly understood by teacher and students, as part of the process of getting it right, a "What's your voice? Here's how I've used it!" accommodation will be challenging and risky for teachers. The process will expose how the teacher has understood and acted in meeting students' expressed weaknesses, strengths, and needs and in addressing them as part of his/her input into the learning enterprise. While the inclusion of student-based verification will come at a cost in terms of time, for some teachers there may seem to be risk in the rebalancing of power—and this may explain why student voice has not been used as widely as desired as an enabler of student engagement.

Meaningful Tasks and Valued Outcomes

Task characteristics and specific learning outcomes thereof are important contextual influences for engagement. Students' subjective valuing of tasks is a key element in promoting and sustaining engagement (Wigfield & Eccles, 2000). When they perceive a task as worthwhile, the pattern of students' learning is characterized by persistence, effort expenditure, and commitment (Eccles & Wang, 2012). Such patterns demonstrate that engagement has occurred across an extended period and with critical operational features reflecting focus, industry, determination, and strength. Academic tasks that are intrinsically motivating, interesting, enjoyable, and that involve project-based designs and interdisciplinary learning are more likely to promote student engagement (Skinner & Pitzer, 2012), both individually and collaboratively (Jarvela et al., 2016). Similarly, when a task is seen to be leading to a desired outcome that students value, it is likely that engagement can be sustained.

Conventional models of engagement (e.g., Fredricks, Blumenfeld, & Paris, 2004), however, do not cover subjective task value and task outcomes as important precursors to, and supports for, engagement. This is a major shortfall in individualistic conceptualizations of engagement. Their explanatory focus on various dimensions associated with an individual's behavioral, cognitive, and emotional responses alone is a weakness when such responses are contingent on subjective task values and task outcomes. As shown in Chap. 5, where Year 5 students did not value silent reading, the engagement task set by their teacher was to "keep quiet." They valued

this task (keeping quiet) as its fulfillment enabled them to continue their quiet chats and avoid the prescribed reading that they found uninteresting. In this case, it is unreasonable to expect these students to read well as they spent their time not on reading but in complying with an appealing classroom rule (maintaining quietness). Similarly, when capable students from poor families in Chap. 6 were given unchallenging tasks to learn, it was difficult for them to develop deep engagement or strong aspirations to study advanced mathematics. In examples provided in these two chapters, we showed that task characteristics are associated with students' engagement responses. Tasks that are viewed as meaningful promote engagement; those perceived as meaningless are sources of disengagement.

Disadvantaged students need to be challenged in their learning, as much as they need to be supported in the processes best suited to learning classroom tasks. However, more often than not, disadvantaged students are given dumbed-down tasks as a consequence of teachers' concerns of their capabilities. While such practice may appear to tailor learning to meet perceptions of students' needs, inadequate or otherwise incorrect perceptions are likely to reinforce a negative feedback loop where these students already disadvantaged by in-school conditions as well as negatively predisposing backgrounds are further discouraged from engaging. The disadvantaged students described in Chap. 6 were trapped in such practices that limited their ability to accept opportunities to learn mathematics at more challenging levels. We raised a similar concern about marginalized students whose unproven intellectual capabilities and potential are unlikely to be kindled and nurtured if accommodations in social enterprises or alternative education aim solely to provide for these youths' emotional well-being. In short, the provision of uninteresting and unchallenging tasks constrains students' engagement responses and, subsequently, their potential.

Connection, Trust, and Relationships

Renewed optimism about success as a learner, as outlined in Chaps. 7 and 8, is an affective attribute of what marginalized young people commonly shared in their accounts of achievement in alternative education and social enterprise settings. Their wins followed re-engagement initially in the form of attendance at school or participation in a social enterprise and subsequently at having a shot at the tasks at hand. The remarkable feature of their different performances was that as students they now recognized and valued the opportunities to learn, as offered through alternative education. This was an extraordinary turnaround from their prior functioning as disengaged learners. At alternative education sites as described in Chaps. 7 and 8, these marginalized youths rekindled their engagement in contexts characterized by greater accessibility and opportunity, experiences of success, reinforcement, and belief. This allowed them to become forward-looking. Importantly for our consideration as researchers and educators, these once-marginalized youths had clear understandings that alternative education was working for them and could relate effectively

the positive experiences that had re-engaged them as students, as learners, and as social participants in their own development.

Their voice on causation was focused on *connection*—they named the person who had built a relationship with them through which they had been able to circumvent recollections of the negative experiences of their past and likely futures and to follow blueprints for their present-day attempts at mastery of knowledge, skills, and attitudes. The relationship had been the enabler of engagement. Through it, these young people respected and trusted the modeling, demonstrating, encouraging, and assessing provided to them as a basis for catching on, trying, and coming to revalue learning and themselves as learners. The consequence of enablement had been a blend of improved relating, thinking, and action. These re-engaged youths were more likely to interact with mentors and peers to ensure they understood what to do. They tracked the propriety of their progress through successful completion of learning tasks and through reflection on why they engage in alternative settings and for what worthwhile outcomes their engagement would result. Despite personal struggles and difficulties, they persisted and succeeded.

There is a lesson to be learned from research cited in Chaps. 7 and 8 about *connection* as it represents an important dynamic support of engagement that educators can utilize to assist, and re-engage, young people who are predisposed to persistent failure in school learning and prepare them for active participation in well-being development. Being socially connected creates a much-needed contextual dynamic where teachers help marginalized students in their academic, social, and personal learning to create an alternative vista to what would otherwise be perceived as an inevitable breakdown. Building on connection-promoting practices, teachers are well-placed to shape mutual respect and trust with a student, to be convincing in helping him/her to position the past as past and forgotten for purposes of what lies ahead, to be compelling in explaining that what lies ahead is uncharted territory with better opportunities, and to be persuasive in assisting these learners to develop effective strategies to explore, chart the territory and claim their potential. Doing this is not easy and is likely to be outside the familiarity and comfort zones of some teachers. But opening up third space with a student is to ignite possibility which will excite many in contrast with the despondency and wretchedness of malfunction where teaching has not previously connected.

Opening up a "third-space" opportunity is a start. Following through by monitoring and strengthening a student's progress and development of content in the space is critical. The pinnacle objective is developing with the student a metacognitive command and communicative discourse about how, and with what agency and outcomes, the achievement has happened and can be further progressed toward personally meaningful outcomes. It is a professional responsibility to teach a youngster how to engage with content alongside teaching the content per se and to show vulnerability as well as adventure in doing something differently. The teacher who helps in this way needs to be courageous, accommodative, and supportive of student-centered practices. With such a teacher enacting this mentoring, the student is likely not only to prosper as an engaged learner but also to enjoy answering the questions we have used to title this chapter.

Searching for Transformative Engaging Practices: Contradictions and Reflection

Some teachers may be unaware of the significance of students' engagement for academic success, under-informed about distinctions between attending to behavior management and to learning management—or satisfied with prevailing pedagogy regardless of whether it scaffolds their students to access and engage opportunities to learn. For example, in Chap. 5, teachers accepted "pretended reading" so long as students remained quiet during silent reading—albeit, not necessarily "silent" or "reading" in their "quietness." In Chap. 6, mathematics teachers were content with students' completion of tasks within their comfort zones without challenging them to attempt work on more advanced mathematics tasks available in the exercise sets. A point for reflection is what it means for teachers, students, and the work of teaching and learning when students' engagement is directed in specific ways. Turner, Christensen, Kackar-Cam, Trucano, and Fulmer (2014) reported a longitudinal study of a teacher-led intervention and pointed out that providing opportunities for "meaningful learning" is the most difficult task in an instructional intervention. We agree. Translated to the context of engagement, it is important part of our reflection to consider the meaning of engagement, its purpose in relation to a teacher's teaching and his/her students' learning, and the factors that might affect norms and rules that are shared among the members of a teaching–learning community and provide a guide for behaviors and governing interactions, actions, and attitudinal responses (Sivan, 1986).

Currently, rules and norms governing learning engagement of disadvantaged students and marginalized youths are overshadowed by political concerns about testing, underachievement, and accountability and by conceptualizations of education for economic competitiveness that underpin these dialogues and discourses. In this context, the issue of learning engagement has been framed and understood in light of gaps, underperformance, and teacher quality, levels of resourcing and financing. Engagement in this context directs educators and policy-makers toward the intervention and practices most likely to improve test scores and narrow gaps between achievement and standards. The publication of "A Nation at Risk" and subsequently the legislation of the No Child Left Behind Act of 2001 and the Every Student Succeeds Act (ESSA) of 2015 are examples of such policy focus. In Australia, a similar pattern of political development was seen through the Rudd Government's Educational Reform policy that led to the commencement of national testing of literacy and numeracy in 2008 (NAPLAN) and the online publishing of comparative performance data of schools using the My School website.

Under these neoliberalism-driven influences, the humanity of disadvantaged students is easily lost behind a test score (Luke, 2012), and poor results often are interpreted as personal failures of engagement and learning. The key question yet to emerge from the overt focus on accountability and achievement is how education might better restore the confidence and application needed to promote engagement for those who have performed poorly. In response, teacher-proofing practices

abound in neoliberal education systems, targeting specifically low-achieving, disadvantaged students (Renshaw, 2017). The issue here is that teachers, like their students, are being "controlled" in educational processes driven by neoliberal ideologies in a context where "effectiveness" is understood in terms of improvement in students' achievement scores rather than their learning, engagement, and development. In a collaborative action-learning project that explores new ways to improve reading in Australian low SES schools, the first author has experienced the "power" of a controlling work environment where achievement targets set by a state education department were taken as the guide for school policy development and teacher actions in their classrooms. One of the principals explained that the Regional District Office of the department had set the improvement of achievement scores of minority students as the target of its schools, and therefore his school had developed policies and practices helping teachers to work toward this goal. When talking to the teachers about possible collaborative action plans for improving reading, teachers' concerns were about the curriculum, their time to work on assessment and reporting, and whether they could finish the tasks that the school had set for them in order to meet administrative expectations and goals. Nonetheless, these teachers realized they somehow needed to improve their students' reading and reading engagement and that this would be particularly challenging for the many disengaged readers in their classes. Their concern was that to do so would cut across the emphasis, time, resources, and measures allocated within the administrative focus on improving reading scores. The teachers were trapped in a dilemma of competing demands and goals in their classrooms and were reluctant in response to the research team's invitation to collaborate on action plans for increasing disadvantaged students' opportunities to read.

Advocating "education for improvement" in neoliberalism-infused schools and classrooms, while rhetorically endorsed, has been displaced by a discourse of accountability, standards, and achievement gaps (Lingard, Sellar, & Savage, 2014). Engagement in such learning settings is considered as students' own psychological issue and narrowly defined in terms of learning from scripted teaching that focuses disadvantaged students on a trimmed curriculum for basic skills training (Renshaw, 2017). In the school where the first author conducted the research reported in Chap. 5, intensive efforts have been devoted to developing a literacy program that focuses low SES students on spelling, phonics, and basic grammar to meet the minimum benchmarks or standards in national testing of literacy. Similar basic literacy skills programs are common in Australian and American schools and, often, are used to improve the achievement gaps between advantaged and disadvantaged students.

Accepting the logic of a standards-driven paradigm of education that focuses on accountability and achievement mitigates against the development of engaging pedagogies capable of empowering disadvantaged students to learn. The practices we described above are associated with what Ball (2003) called "the terrors of performativity," which are criticized for deskilling teachers and stifling teacher autonomy. From an engagement perspective, such terrors are often associated with controlling teaching styles in ways that have deleterious effects on students' engagement. In the culture of performativity, school leaders and teachers focus on a narrowed curriculum

and gear their teaching toward such a curriculum ostensibly to improve learning for disadvantaged students. In this trimmed curriculum, what is worthwhile learning, and hence engagement, is defined in relation to what a school needs to do to address any achievement gap in relation to standards. Classroom learning activities and interactions are constrained by performance-focused practices such as completing comprehension worksheets that promote rote learning (Thompson & Harbaugh, 2013).

Most disadvantaged students will not find these practices engaging. Wisehart (2004) provided a succinct explanation in stating that "when we reduce learning in our students' eyes to numbers and letters, we lose passion, we lose complexity, we lose fun" (p. 46). More significantly, such practices often serve as a reminder of disadvantaged students' failures or inadequacies, triggering negative emotions such as shame, anxiety, and fear that cause them to delay or avoid engagement (Boekaerts & Pekrun, 2015). Some may engage passively, simply complying with classroom rules and instruction, while others may actively disengage through displacement behaviors such as staring out of the window, walking around the classroom, chatting with friends, or creating disruptions. Teachers of disadvantaged students are concerned about student disengagement and students' unwillingness to expend time and effort. Some conclude that disadvantaged students fail to learn because of inability, lack of commitment, and appalling family conditions (cf. Mills, Keddie, Renshaw, & Monk, 2017; Taylor et al., 2016; Torff & Sessions, 2006). Teachers who are particularly alert to behavior management may leave those of these students who are quietly disengaged alone and resort to disciplinary actions for those who are disruptive. In both cases, students are unlikely to maintain a purpose, keenness, and desire for learning in mainstream school, and disengagement, truancy, and early school dropout loom as consequential possibilities. Some will find their second chance in alternative education, contributing to the mushrooming of alternative education programs. Ironically, alternative education programs work well—and provide us with pointers for more successful engaging pedagogy and management with students who do not seem to fit easily and productively in teaching–learning environments less prepared for the flexibility and resolve needed to engage them within conventional school structures.

In this context, an important consideration is why disengagement seems increasingly widespread in our classrooms and why mainstream schooling has failed marginalized students who seek second chance education in alternative settings. The question is, "What triggers disengagement?" The question is a probe which has mostly been set aside as problematic without careful examination of the circumstances that contribute to disengagement's development and occurrence. The circumstances open up further questions, such as "Will it be justifiable when students are required to join group work if they do not have refined social skills?" "What about students who are expected to read at a time when distraction abounds?" Does it count when students are bored with unchallenging tasks?" If engagement is purposeful, as we have discussed in Chap. 1, so is disengagement. In instances such as those raised in the questions above, disengagement or superficial engagement is more advisable from the student's perspective. In the same vein, basic skills programs

and associated practices such as doing practice papers and streaming students based on achievement levels are more likely to intensify disengagement rather than promote engagement. In short, disengagement is likely when students consider the "object" of engagement (i.e., the task they are asked to do) not to be appealing because it seems irrelevant or linked to outcomes for which they have little desire. As a result, critical questions in relation to engagement with what task, for what purpose, and toward what outcome are likely to turn into a point of negotiation between such students and the teacher. Forcing students to continue their engagement in such settings without considering their perspectives is likely to result in rejection, avoidance, and withdrawal by students. Educators who are successful in re-engaging marginalized students in this negotiated process skillfully open a new dialogue based on care and trust that forms a relational foundation for students' consideration or reconsideration of these important engagement questions and for finding their own authentic answers. This happens within a supportive and enabling setting where the relevant focus of learning is not on achievement and scores but about what personally matters to learners both presently and in the future. "Students' classroom participation is not a manifestation of their (existing) beliefs; rather, students' participation changes as beliefs develop and change in concert with opportunities that are made available to, or required of, students by other classroom participants" (Turner & Patrick, 2008, p. 120). We agree! This is the basis of our answer to the questions of engagement with what, for what purposes, and toward what outcomes. While cognitive enablers continue to be important, more research attention is required to focus on objects, purpose, and situatedness of engagement and disengagement when promoting learning for disadvantaged students.

By way of illustration, Chaps. 4, 5, 6, 7, and 8 provide research examples that highlight these key considerations for promoting engagement for disadvantaged students. These examples also improve our understanding of engagement as changing and active participation in learning individually and collaboratively wherein social engagement facilitators such as collaboration and support play out through an

interactive process in different learning situations in mainstream classrooms and social enterprise settings to support disadvantaged students' pursuit of meaningful engagement. Linear-relational models based on Fredericks' multidimensional framework (2004) encompassing engagement as behavioral, cognitive, and emotional components remain significant in highlighting engagement indicators such as concentration in reading, engaging in challenging mathematics work, and feeling connected in learning through social enterprise programs. More significantly, we have drawn you, our reader's, attention, using these examples, to the fact that disadvantaged students' engagement in mainstream and alternative school settings is being constrained by decisions made by educators, teachers, and leaders in education who have political agendas to fulfill which subsequently direct the nature and provision of learning opportunities. Policies and practices driven by neoliberal ideologies limit opportunities to learn for disadvantaged students. Professional reflection on student engagement and developing practices to support engagement cannot be removed from such an influential context.

As educators, we are certainly not satisfied with students' superficial engagement in the form of compliance to classroom rules. Equally, we are not satisfied to see student engagement being constrained due to entrenched beliefs that disadvantaged students are less capable, or, to observe teaching practices and decisions aimed at narrowing achievement gaps through diet curricula that limit disadvantaged students' opportunities to learn. The forms of engagement that such practices engender are substandard, far from optimal, and can best be classified as superficial. Ironically, many schools and teachers serving disadvantaged students, and perhaps students themselves, too, seem to have put up with superficial forms of engagement (see Chap. 6). In such situations, linear-relational models of engagement like Fredericks' multidimensional conceptualization offer little redress and even may reinforce a deficit position on disadvantaged students' incapability of deep engagement and learning, as these models focus on individuals' lack of motivation and skills. Instead, it is critical to consider access and opportunities to learn that we have used to frame this volume with a focus on the sufficiency of educational provisions that are critical for supporting disadvantaged students' engagement.

Empowering engagement for disadvantaged students requires partnership and collaboration with students to develop engagement tasks (object) that are meaningful and help them work toward outcomes that they desire. Without such effort, adding more "carrots and sticks" to engage disadvantaged students and marginalized youths to work on tasks that they find repetitive, mechanical, and uninteresting will fall short of the ideal of engaging all students to learn in the twenty-first century. To do this, educators at all levels need to be reflective and have the chutzpah to question policies and practices from the perspective of advancing educational needs of disadvantaged students and marginalized youths in order to prepare them through an education that enables equitable participation in academic, social, economic, and other personal dimensions in the new century. It is through such reflective efforts that students who are disadvantaged can be empowered to engage in meaningful learning.

Conclusion

Engagement is a complex phenomenon, molded from environmental factors that are both internal and external to the classroom contexts in which students, and those fostering their growth and development, operate—as well as from factors inherent to the student and supporting personnel. Our address of the nature of engagement and influential factors that mediate the creation and actualization of its opportunities has traversed this range from the theorization and evidence provided from research, particularly in relation to children and young people from vulnerable backgrounds. Other researchers (Anlezark, 2011; Chabanet & Faniel, 2012; Kieselbach, 2013) have depicted conditions of vulnerability linked to exclusion that are associated with specific forms of impoverished engagement and performance resulting in long-term societal disconnection. We followed their lead and highlighted, in Chaps. 1 and

7, theorization of seven areas of vulnerability that may deplete students' opportunities to engage in learning and to use what they learn productively as engaged students and as participating members of society. In closing our discussion, we reiterate these areas of vulnerability to highlight conditions and influences that may pose major challenges to engagement for students from disadvantaged backgrounds. The highly probable challenges will arise from:

- *Intellectual exclusion* where, through deepening lag in knowledge and intellectual know-how, opportunities to learn are less likely to be recognized and more difficult to access
- *Pedagogical and institutional exclusion* where, through lack of realizable support in available pedagogy and institutional policies and practices, opportunities to learn are constrained in meeting needs of assessment and other institutional agendas instead of those of the students
- *Submerged opportunity for academic identity* where inadequate academic successes and frequent off-task responses limit students accessible bases of recognition and self-worth constraining their perceptions of, involvement in, and benefit from, learning opportunities that support efficacious attitude, skills, and knowledge development
- *Continuing education and training exclusion* where basic levels of knowledge, qualification, and lapsed confidence restrict students' possible continuation in post-compulsory years of schooling and admission to higher education and training programs
- *Social isolation* where, through shame and retreat from positively nurturing social and academic networks, relational factors that otherwise may promote students' engagement fail to materialise
- *Cultural exclusion* where, in being unable to live according to socially accepted norms of the educational system, school, and class, students see themselves, and are seen by others, as pariahs in the learning settings they experience
- *Spatial exclusion* where, from living and having schooling only in a subset of places, students' learning and education are limited in their scope

We recognize that teachers will see these conditions as posing difficulties to retrieving young people entangled in their restrictions and reviving them as students. We recognize, too, that some of the conditions and some youngsters are unchangeable within the normal circumstances of teaching–learning interactions. Nonetheless, we are confident that they also will see evidence provided in studies we have reported indicating positive possibilities where students in groups or individually have been drawn by good teachers, good pedagogy, and good management to engagement as the focus of their purpose in schooling. In the often-stated adage, "when the student is ready, the teacher will appear," teachers and their teaching are afforded a responsive position hinging on students' willingness, preparedness, and readiness. In this book, we framed a reverse order, "when the teacher is ready, the student will engage." Teachers and teaching hold the key to promoting engagement for students who come from disadvantaged backgrounds.

But, what then are “engagement” and the “engaging in engagement opportunity” that such good teachers need to create for disadvantaged students and marginalized young people? And what enables the enablers of engagement? Our position at the end of this book is that engagement is the dynamic way that students interact with learning tasks, with activities, and with each other while participating in specific educational contexts. We see engaging in learning opportunities as most likely to happen for students who are disadvantaged when they collaborate with their teachers and peers to co-construct learning and its governing context, focusing on support, meaningfulness, fairness, and agency. We consider that teachers are supported as enablers where their actions in terms of accountability to societal and systemic mandates are met in ways that facilitate, rather than formulate, student-centeredness in why, what, and how they bring students engagingly to the perception and realization of opportunities to learn, aspire, flourish, and connect in meaningful ways.

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