

Fig. 4.1 Map of Philippines (Source: http://www.d-maps.com/m/asia/philippines/philippines/14.gif)



Teachers' Assessment Strategies for Children with Disabilities: A Constructivist Study in Mainstream Primary Schools in Negros Oriental, Philippines

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Abstract Chapter 4 presents a research that gathered the voices of mainstream classroom teachers in Negros Oriental, Philippines regarding the strategies they use for the assessment of pupils with disabilities. There is limited systematic research on assessment strategies used for pupils with disabilities in the Philippines. A constructivist methodology was adopted, including semi-structured interviews with 3 teachers and classroom observations. Findings revealed that teachers used a variety of strategies, such as tests, observations, portfolios, and groupings. Furthermore, in delivering these strategies, teachers made further adaptations based on individual children's needs. The authors stress that when differentiating assessment, teachers need to consider numerous complex factors, and they highlight

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some characteristics of the Philippines context that hinder the adoption of inclusive approaches to assessment of pupils with disabilities.

Keywords Assessment • Differentiation • Pupils with disabilities • Teacher voices • Philippines

Because of the limitations that a child with a disability may have either intellectually or physically, there is a big need to modify the whole assessment process for him. This is the only way of ensuring that everything I do for him is responsive and relevant to his needs as a child with a disability'. (Teacher participant)

4.1 INTRODUCTION

There is very limited systematic research on assessment strategies used for pupils with disabilities in the context of the Philippines. The aim of the research presented in this chapter was to give a voice to teachers from the Negros Oriental province regarding the strategies they use for the assessment of pupils with disabilities. In discussing our findings, we highlight the particular characteristics of the Philippines education system that hinder or enable the adoption of more inclusive approaches to assessment of pupils' learning outcomes.

Both in theory and in practice, assessment is recognised as an important aspect of the teaching-learning process. This is manifested in education policies worldwide that emphasise the assessment process and set principles as to how it should be implemented in the classroom setting. The Philippines has been proactive in supporting appropriate assessment strategies for all learners: in 2012, the K to 12 Basic Education Programme was passed into law, which exemplifies the principles of inclusive education, growth and development, teaching and learning, and assessment (SEAMEO & INNOTECH, 2012).

However, in spite of major policy initiatives like this one, the Philippine education system faces major challenges especially in relation to the assessment of children with disabilities. A rigid curriculum that leads to rigid assessment strategies, classroom shortages, and unfavourable learning environments in general are three of the many causes of students dropping out from school (UNESCO, 2015). These factors are also very likely to

cause children with disabilities to struggle in the mainstream education classes. It is important to emphasise however that in the context of global North countries such as the US, UK, and Australia, there is a breadth of research literature exemplifying the assessment practices of teachers in primary schools for children with disabilities. Baessa (2008) argues that there is a significant need for studies to focus on developing countries so that there is an equal balance of perspectives about issues pertinent to different contexts.

The study reported in this chapter explored how three mainstream primary school teachers in the Negros Oriental province assessed children with disabilities in their classrooms. In particular, it examined the different assessment strategies they used and how they used them in order to respond to the needs of children with disabilities. A constructivist methodology was adopted, which allowed us to understand the experiences of the participants, the meaning of those experiences being constructed by the participants themselves (Charmaz, 2006). Interviews with the teachers and a series of classroom observations were conducted as part of data collection for this research.

The findings revealed that a range of assessment tools were used by the teachers such as tests, observations, portfolios, and groupings. Furthermore, in delivering assessment tools to children with disabilities, the teachers modified the content and delivery based on the needs of each child. The content modification included the use of the child's native language, and the length and level of difficulty of the assessment. Moreover, the foci of delivery modification were proximity, peer support, use of technology, and duration. This suggests that in delivering the different types of assessment strategies, there is a variety of complex factors for teachers to consider in order to best respond to the needs of children with disabilities. These findings raise questions about the capacity of teachers to respond to the needs of children with disabilities, given the harsh reality of mainstream schools in the context of the Philippines, and in this chapter we will be addressing those questions.

We would like to emphasise from the outset that this study is a product of our commitment towards making inclusive education a reality especially in global South contexts. We know how challenging the implementation of inclusive education can be in some contexts, but it is important to note that there also exist ad hoc initiatives that ensure that children with disabilities are provided with a learning process that is responsive to their needs. However, how can these scattered examples of good practice be shared with the education community if they are not documented systematically and further explored? This was the main reason why we interviewed three teachers working with children with disabilities about their approaches to assessment. We are grateful to those teachers for agreeing to take part in our study and for making it happen.

4.2 Assessment of Children with Disabilities in the Philippines: A Brief Background

The Philippine education system fully recognises the importance of providing appropriate assessment to all learners. The Department of Education is committed to creating schools that are more inclusive and to overcoming the challenges associated with educating children with disabilities in mainstream schools. Specifically, an intensive training programme on inclusive education strategies for teachers has been organised with the aim of helping them effectively meet the needs children with disabilities (DepEd, 2015). This initiative seems to have positively influenced schools' practices on inclusive education specifically on the aspect of teachers' innovation and creativity when assessing children with disabilities in their classrooms. Moreover, as mentioned earlier, the K to 12 Basic Education Programme that was introduced in 2012 exemplifies the principles of inclusive education, growth and development, teaching and learning, and assessment (SEAMEO & INNOTECH, 2012). Specifically, in terms of assessment, the Programme recognises learner-centeredness and places emphasis on the role of the learning environment. Furthermore, the Programme's assessment process warrants the employment of a vast array of traditional and new assessment tools and techniques for a valid, reliable, and realistic assessment of learning (DepEd, 2012). Simply put, the K to 12 Basic Education Programme has been designed to address the diverse learner needs and may be adapted to fit specific learner groups also in relation to assessment approaches (SEAMEO & INNOTECH, 2012).

However, in spite of the fact that major policies like this one are in place, the Philippine education system is faced with major challenges that seem to be related to a number of factors. UNESCO (2015: p. 56) notes that rigid curriculum and assessment processes, classroom shortages, and unfavourable learning environment are three of the many causes of students dropping out from school. It adds that teachers especially in government schools are left with no other option but to 'teach to the test' and that written achievement tests determine the quality of performance of the

schools and teachers. In a report published by GP Rehab, one of the teachers interviewed stated:

I do not have much time and resources for differentiation. I have more than 40 children in class. I also have to cope with the number of chapters and lessons I have to cover and deliver before the national test comes. (2013: p. 45)

It follows that this situation causes children with disabilities to struggle in the mainstream class. As a result, some parents continue to express their disappointment about how their children are being taught and assessed. In the same report, a mother of a child with cerebral palsy shared the following experience:

His teacher does not really care about his presence in class. He just goes to school and sits in class. The teacher does not provide other ways for him to answer his exams even if he cannot hold his pencil. He has to force himself to write. (GPRehab, 2013: p. 16)

The above challenges can also be translated into figures. As a whole, only two per cent of Philippine's children with disabilities are in school and the drop-out rate is high (DeptEd, 2012). In addition, according to GPRehab (2013: p. 10) in the Negros Oriental province two out of three children with disabilities enrolled in mainstream primary classes drop out after three months from the start of the school year. The remaining number has less than 30 per cent chance of progressing to the next level (GPRehab, 2013). In response to these challenges, certain organisations such as for example The Great Physician Rehabilitation Foundation (GPRehab) have been leading the advocacy on the rights of children with disabilities in Negros Oriental, by establishing inclusive education systems in identified primary schools in the province. This includes implementing activities such as parent and teacher training programmes, school-based disability awareness activities, and monitoring of the status and progress of children with disabilities. These initiatives have positively influenced schools' practices on inclusive education. Certain public primary schools from three municipalities in the province of Negros Oriental, for example, have been identified and recognised as 'inclusive schools' because of the teachers' efforts to establish inclusive education systems that accommodate all children and especially those with disabilities (GPRehab, 2013). In addition, these efforts have led to significant improvement of teachers' competence in teaching children with disabilities especially in the area of assessment. GPRehab (2013) asserts that certain teachers specifically in primary schools in Negros Oriental initiate modifications in assessment approaches within their classes. The following is an example of a 'success story':

I have a child with cerebral palsy in my grade III class. Because of her spasticity, she has a hard time accomplishing writing activities in class. I have to make some modifications in my classroom instruction. For exams that require intensive writing, I only ask the child to do a verbal evaluation. For example in spelling, instead of making her write the words, she spells them verbally. (Ma, 2013: p. 6)

This highlights the need for innovation and creativity on the part of the teacher when assessing children with disabilities. Miles and Singal (2010) stress that it is empowering to see teachers from developing countries innovating for inclusive education so that they can effectively work with children with disabilities. They add that, indeed, teachers play an important role in making inclusive education a reality, and this is another reason that motivated us to capture the teachers' perspectives and voices in our study, which we describe in detail in the following section.

4.3 Teachers' Assessment Strategies: A Research Study in the Philippines

The goal of our qualitative study was to explore how three selected teachers assessed children with disabilities in mainstream primary classrooms in Negros Oriental, Philippines. Specifically, our aim was to answer the following research question:

1. How do primary school teachers assess children with disabilities in the mainstream classroom?

For greater clarity, we broke down the main question into two sub-questions:

1.1. What assessment strategies do primary school teachers employ for children with disabilities in the mainstream classrooms?

1.2. How do primary school teachers deliver the assessment strategies for children with disabilities in the mainstream classrooms?

In order to substantially explore the answers to these questions, we adopted a constructivist methodology, which provided the framework for our study. This methodology was chosen firstly because it highlights the understanding of human experiences (Corbin & Strauss, 2008) and encourages the researcher to depend upon the views of the participants (Creswell, 2007). Secondly, this methodology 'assumes that the meaning of experiences and events are constructed by individuals, and therefore people construct the realities in which they participate' (Charmaz, 2006: p. 58), because 'reality is socially constructed' (Mertens, 2005: p. 12). Accordingly, we gathered the experiences of primary school teachers in relation to assessment strategies and how they employ these strategies for children with disabilities in their mainstream classroom.

4.3.1 Target Population and Sampling

This study focused on gathering the perspectives of teaches from rural areas in Negros Oriental, who have children with disabilities in their class-rooms. The two main criteria for choosing the study participants were to have:

- (a) children with identified disabilities enrolled in their classrooms and
- (b) experience of practicing inclusive education and specifically assessment strategies for children with disabilities for at least three years.

We wanted to include a diversity of experiences and hence selected participants from different grade levels and schools. In total, three teachers were selected for the interviews, teaching in grade one, two and three respectively. It is important to clarify that the study was limited to primary school teachers because they have responsibility for the total educational programme and a duty of care for their group of students throughout the school day (SEAMEO & INNOTECH, 2012). It is also important to note that most of the training opportunities on inclusive education are given to primary school teachers in the Philippines, perhaps also in response to the fact that more and more children with disabilities are enrolled in primary schools (DepEd, 2012). We sought the informed consent of the selected teachers with a brief activity, informing them of the details of the study, that their participation was voluntary and that they could refuse to take part or withdraw at a later stage. According to Marshall and Rossman (2011), we also considered participant *confidentiality and anonymity*, and accordingly any identifiable information such as names of schools and teachers has been removed from the final report. Finally, another important ethical consideration was the need for *reciprocity*, and we provided participants with 'thank you' tokens and as well as copies of the final report.

4.3.2 Research Tools

We used two constructivist data collection tools, namely, semi-structured interviews and observations (Charmaz, 2006), each of which served different yet equally important purposes especially in the triangulation of data (Creswell, 2007).

Semi-structured interviews were the primary method of data collection and an interview guide (or a list of topics/questions) was used (Patton, 2002). The interviews allowed us to gather 'in-depth and direct perspectives' (Kvale & Brinkmann, 2009: p. 38) from the teachers on how they assessed children with disabilities. The researcher's role during the interview was to facilitate the process and gather relevant information from the teachers using the interview questions as a starting point (Cohen, Manion, & Morrison, 2007). As a constructivist tool, semi-structured interviews should achieve in-depth exploration and this may require multiple interviews with the same participant. This was the reason why the interview process in this study was completed in two stages. In the first stage, the main interview was conducted after a series of 1-2 three-hour class observations. The aim of the interview was to discuss in-depth the topics/questions listed in the interview guide (see Table 4.1). The interviews were a structured process in a sense that the date and time of the sessions were scheduled ahead, and these were audio recorded to ensure clarity and accuracy of data. This usually lasted for more than 30 minutes. In the second stage, informal follow up interviews were conducted where necessary to clarify points that arose from the class observations. These were usually conducted over 5 to 10 minutes at break time.

Furthermore, we used direct observations as a second method of data collection, and more specifically, we conducted naturalistic observations of classroom sessions, in order to explore in a 'direct and natural manner' (Woods & Pratt, 2006: p. 102) how teachers employed assessment strategies

Table 4.1	Interview	guide used
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1. What instances require you, as a primary school teacher, to employ assessment strategies for a child with a disability in your classroom?

i. Are these instances more internal (intrinsic) or external (extrinsic)? Or a combination of both? What are these specific instances?

ii. How do you deal with these instances?

2. What are the different forms or characteristics of assessment strategies you, as a primary school teacher, employ for a child with a disability?

i. Do you give priorities in differentiating among the different assessment strategies? Or do you give equal importance to all of them? Why?

ii. What forms or characteristics of assessment strategies do you employ for a child with a disability in your classroom?

iii. Can you give specific examples of these specific assessment strategies you employ for a child with a disability in your classroom?

3. How do you, as a teacher, deliver the assessment strategies for a child with a disability your classroom?

i. What aspects or criteria do you have to consider in delivering the assessment strategies for a child with a disability your classroom?

ii. Do you have to utilize existing assessment materials and modify them? Or do you have to create new ones? Elaborate.

iii. What specific strategies do you employ in delivering the assessment for a child with a disability in your classroom?

for children with disabilities in their classrooms. For every teacher participant, one observation session was done on a Monday morning, and one on a Tuesday afternoon. Each session lasted for three hours. Two different time frames were involved in the observations—morning and afternoon primarily because different sets of subjects were being taught in each slot. Worksheets were used to record relevant instances in the classroom in relation to assessment strategies. After that, the interviews took place (usually on a Wednesday), and after the interviews, two more observation sessions were carried out per teacher, one on a Thursday morning, and another on a Friday afternoon. Hence 2 interviews and 4 observation sessions were carried out per teacher, i.e. 12 observations and 6 qualitative interviews in total.

4.3.3 Data Analysis

The data collected from interviews and observations were analysed through the constructivist procedure suggested by Marshall and Rossman (2011), which has several phases. First, we organised the data by listing it

on note cards, performing the minor editing necessary to make fieldnotes retrievable, and transcribing the interviews verbatim. In the second phase, we immersed ourselves in the data by taking the time to read and reread them several times which helped us become familiar with the material as per Marshall and Rossman's (2011) suggestion: 'researchers should think of data as something to cuddle up with, embrace, and get to know better' (p. 210). In the third stage, we generated categories and themes from the data using the two sub-questions of the study. The first subquestion provided categories regarding the types of assessment and it further provided themes on specific assessment strategies that teachers used under each assessment type. The second sub-question created categories on content and delivery of assessment strategies, and each category led to the development of specific themes such as proximity, use of technology, and length and content of assessment strategies. In the fourth stage, from the generated categories and themes, we started coding the data by using both the readings of the data, and the conceptual framework provided in the literature in relation to assessment, in order for us to see how the data on assessment strategies function or nest in their context and what varieties appear and how frequently the different varieties appear. In the fifth stage, we provided interpretations of the coded data. In this phase, we brought meaning and coherence to the themes, patterns, and categories, developed linkages and a story line related to assessment strategies that made sense and was engaging to read. Part of this phase was concerned with evaluating the data for their usefulness and centrality. In the sixth and final stage, the searching for alternative understandings took place with us constantly evaluating the plausibility of our developing understandings on the data regarding assessment strategies to ensure the quality and credibility of the study. Finally, this phase framed the writing of the final report by helping us summarise and reflect on the complexity of the findings.

4.3.4 Trustworthiness

In constructivist qualitative studies, validity is usually referred to as *trustworthiness* (Davies & Dodd, 2002; Mishler, 2000; Stenbacka, 2001). In our study, we explored the concept by considering two criteria commonly used for this purpose by qualitative researchers, namely, *credibility* and *transferability*. The credibility of this study was ensured with the use of the following processes: firstly, we used *triangulation*, the process of utilising different methods when collecting data (Punch, 2009), and accordingly we employed two data collection methods, namely, semi-structured interviews and direct observations. Secondly, we used *iterative questioning*, which allowed us to detect any contradictions that emerged in participants' statements. Finally, we used *member checking*, a process according to which the researcher asks participants whether the collected data are correct (Shenton, 2004). Each participant was sent the transcript of their interview and this allowed us to get the reactions, corrections, and further insights of the participants about the interview data.

Patton (2002) emphasises that *transferability* or external validity, 'is concerned with the extent to which the findings of one study can be applied to other situations' (p. 22). Since the findings of this qualitative study were specific to a small number of individuals and contexts, it seems impossible to demonstrate that the findings and conclusions are applicable to other situations and populations. However, it is argued that the prospect of transferability should not be immediately rejected especially in research projects that utilise *multiple environments* (Brewer & Hunter, 1999). It is useful to note again here that this study involved three teachers coming from three different mainstream primary schools in the province of Negros Oriental. These schools were located in different regions within the province, which we argue qualify as *multiple environments* and therefore, our study fulfils partially the transferability requirement of a qualitative study.

We also recognised from the outset the threats to our study's credibility and transferability. One of which was researcher bias due to the social interaction component of the interviewer-interviewee relationship. Kvale and Brinkmann (2009) describe it as 'the asymmetrical power relations of the research interviewer and the interviewed subject'. In response to this threat, we had to reflect on our status and position as researchers. The first author had worked closely with all three participants over three years in the past on an inclusive education project. We saw that this might have motivated the participants to want to make things seem better, or to please the researcher by responding in the way that they believed he expected. To minimise this risk, we made sure that the participants were clear on the nature of research (Field & Morse, 1995), and stressed the fact that we were absolutely not collecting data for evaluation purposes. We did this at the orientation activity with participants before the research commenced and before the interviews were conducted. In continuously reflecting on our researcher status and its impact on our findings, we followed Field and Morse's suggestion:

The researchers [...] should examine and declare their underlying values and assumptions in light of the research situation so that they can be considered when reading the research. (1995: p. 56)

4.4 FINDINGS

Based on the research sub-questions, the findings were organised in two main themes, namely, *types of assessment strategies* and *delivery of assessment strategies* (see Table 4.2 for a summary of all themes and sub-themes that emerged from the analysis).

4.4.1 Types of Assessment Strategies

The three teachers interviewed showed a substantial understanding of the concept of *assessment* and its importance for children with disabilities. This was manifested when they were able to categorise assessment strategies as

Themes	1. Types of assessment strategies		2. Delivery of assessment strategies		
Subthemes	1.1. Diagnostic assessment		2.1. Assessment content		
	1.1.1. Т	Tests	2.1.1.	Use of native language	
	1.1.2. I	nformal observations	2.1.2.	Adjustment of level of	
	1.1.3. P	Previous teacher	difficulty		
	recommend	lations	2.1.3.	Adjustment of length	
	1.2. Form	ative assessment	2.2. Ass	sessment delivery	
	1.2.1. I	ndividual work	2.2.1.	Proximity	
	1.2.2. P	aired work	2.2.2.	Peer support	
	1.2.3. 0	Group work	2.2.3.	Use of technology	
		*	2.2.4.	Time element	
	1.3. Summative assessment				
	1.3.1. Т	Tests			
	1.3.2. 0	Group work activities			
	1.3.3. P	*			

 Table 4.2
 Themes and sub-themes emerging from the data

diagnostic, formative, and summative. We can argue that this level of awareness is context specific, and a result of how assessment is explicitly emphasised especially in certain education policies in the Philippines. This relates to the perspectives of *equity* and *personal fulfilment and satisfaction*. Recognising that assessment is not merely a 'summative' tool is a manifestation that teachers are sensitive towards the diversity children may bring in the classrooms. This emphasises that assessment should be utilised as an opportunity to promote equity and learning within the education system, and not as a way of 'judging' children. In addition, the teachers' use of formative assessment, for example, exemplifies the idea of *learner-centeredness* within the perspective of *personal fulfilment and satisfaction* and the teachers said that they took the time out to substantially monitor how the children were performing during instruction. This allowed teachers to make necessary adjustments or improvements in the teaching and learning process.

According to the interviews, the teachers used specific assessment strategies per assessment function in their classrooms. These specific assessment strategies came in varied forms to ensure that children with disabilities had more options to express their learning in class. This is strongly linked to the concept of *dynamic assessment* primarily because of the fact that teachers go beyond using 'pen and paper' tests, which are characterised as static testing. The use of groupings, for example, reflects the characteristics of dynamic assessment as being 'interactive, open ended, and generate information about the responsiveness of the learner to intervention' (Lidz & Elliot, 2005: p. 103). Furthermore, it is important to note that the application of the principles of dynamic assessment is not solely related to the teachers' use of varied assessment strategies; it is also significantly linked to how they deliver them to children with disabilities.

Overall, teachers' awareness and use of varied assessment strategies reflects that they were sensitive to the needs of children with disabilities. They moreover followed the guidelines given by the Department of Education especially regarding the use of 'pen and paper tests' in diagnostic and summative assessments. However, it is important to highlight that there were certain assessment strategies that teachers employed that are not necessarily mandated by the Department of Education. These include the use of observations with anecdotal records in diagnostic assessment, and groupings in both formative and summative assessments. The next sections discuss in depth the main types of assessment that were mentioned by the teachers.

Diagnostic Assessment Strategies

Popham (2008) defines diagnostic assessment as an attempt to quantify what students already know. The teachers we interviewed emphasised that diagnostic assessment played an important role in identifying the strengths and weaknesses of children with disabilities before teaching them. In addition, our observations showed that it could also be used during lesson time, such as for example by this teacher, who said that she kept informal observation notes during her daily lessons:

What I usually do is that I have one notebook for one child that I'd like to observe. Every time I get to see relevant behaviours, I write them down. If the behaviour becomes recurring and problematic, I make recommendations on how to address it.

It is interesting to note that the whole idea of diagnostic assessment reflects the fact that assessment should be an integral element of the Individual Education Plan (IEP) process. This means that whatever data teachers collect from diagnostic assessment should be used as the basis for creating an IEP relevant to the needs of the child with disabilities in question. However, in this study, teachers did not mention IEPs and we assume that this is because IEP is a concept that is only used among special education teachers in the Philippines. Another likely explanation is that an IEP is a document that takes time to prepare and teachers in primary schools face daily time constraints due to their numerous other responsibilities.

Within diagnostic assessment, teachers used three specific assessment strategies: (1) tests, (2) informal observations, and (3) formal recommendations from previous teachers. The tests were 'pen and paper' tests, where children with disabilities were asked to respond to given tasks in writing, and we discuss the inclusiveness or not of these tests later in this section. Informal observations were carried out by the teachers in order to gather information about how children with disabilities were performing academically and socially, while the formal recommendations from previous teachers contained critical information as to how children had performed in the previous year and how the current teachers could accommodate them in specific aspects or areas of learning. One teacher reflected on the benefits of this approach:

The good thing about having recommendation documents is that I can always approach the previous grade level teacher to clarify some important things presented in the documents. I always find time to talk with the teacher so that I will get a clear idea on how I can teach the child best. This encourages cooperation between us, teachers.

The tests used as a diagnostic tool by teachers in this study were administered twice, i.e. pre and a post learning. This process is strongly linked to the 'sandwich' design of dynamic assessment, which implies that before an instruction, a child with a disability is given a pre-test to identify his or her strengths. Instruction then follows. The child's learning is finally assessed based on a post-test. All teachers described this process as follows: they administered a pre-test at the start of the school year and used the results of the test to support instruction. Post-test then followed in the form of periodical tests.

Tests should not solely be used to diagnose children's strengths and weaknesses primarily because they do not holistically capture the strengths and weaknesses of children with disabilities. For example, a test that requires reading and writing skills might not be accessible to a child with dyslexia or with a visual impairment (Carney & Sheppard, 2003; Handler & Fierson, 2011). This is why teachers of children with disabilities need to explore other strategies of determining the strengths and weaknesses of these children before teaching them. Therefore, it is important that the teachers in this study made use of the recommendations made by the previous year's teachers and informal observations on a daily basis to complement the results of the 'pen and paper' diagnostic tests. It is also relevant to mention that teachers took the time necessary to approach the previous teachers and discuss further their recommendations, which can be a challenge given that this time is not timetabled into their daily routines.

Formative Assessment Strategies

In relation to formative assessment, which seeks to determine how students are progressing through a certain learning goal (Wininger, 2005), the following strategies were used by the teachers: (1) individual work, (2) paired work, and (3) group work. These strategies require different mechanisms, but focus on a similar purpose, according to the teachers themselves, i.e. to inform instruction. This practice seemed to reflect the teachers' awareness and sensitivity towards the diverse needs of children with disabilities in their classrooms.

The individual work was similar to a self-assessment strategy in that it utilised journal writing, for example, to allow children to express their reflections. As exemplified in the literature, journal writing is a common strategy in assessing children with disabilities. This was specifically manifested in two empirical studies done by Brady and Kennedy (2011) and McMiller (2010) stressing that assessment should be a formative process and a demonstration of real achievement.

The use of 'Think Pair Share' as a specific activity in pairs in formative assessment brings Zone of Proximal Development (ZPD) (Chaiklin, 2003) and mediated learning experiences into the picture. This is due to the fact that according to the teachers, the main purpose of employing paired work activities was to allow a more competent child to work with a child with a disability in order to accomplish a task. Furthermore, this was to encourage a child with a disability to work with the help or support from someone in class. The Zone of Proximal Development and mediated learning experiences are relevant here because the child is provided with the so-called 'scaffolding' in the form of human assistance or support.

The group work activities employed by the teachers in this study were strongly linked to the principles of differentiated instruction and flexible groupings during assessment. Tomlinson (2001) argues that the use of differentiated outputs for certain tasks is an essential aspect of tailoring the assessment to meet individual needs. In this study, differentiated outputs took the forms of drawing, role-playing, diagramming, and other creative activities. These forms were based on student readiness, interest, or learning profile as reflected in the principles of differentiated instruction. However, it is important to stress that the employment of group work activities may pose a challenge in the classroom. In most cases, in the Philippines, one teacher has more than 50 children in a small classroom and doing flexible groupings may impose further challenges on classroom management and time. We would like to stress that good planning is essential before using such activities in the classroom to ensure their smooth and meaningful implementation. In this study, the teachers did come from government primary schools where they had an average number of 40 children per class. However, they were able to use differentiation to some extent and to make varied formative assessment strategies a natural part of their daily lessons as much as possible.

Summative Assessment Strategies

Aside from diagnostic and formative assessment strategies, the teachers also made use of varied strategies of summative assessment, a process, which assesses students' mastery of a topic after instruction (Black & Wiliam, 2003). In the context of this study, the summative assessment strategies were divided into: (1) tests, (2) performance, and (3) product assessments (Brady & Kennedy, 2003). The weekly quizzes and periodical tests fall under tests, while group work activities and portfolios were examples of performance assessment and product assessment, respectively. However, tests were consistently used as the main summative assessment strategy. Tests are considered as a form of traditional assessment and are explicitly highlighted in the K to 12 Basic Education Curriculum. In other words, tests are standardised tools that teachers have to use when assessing children.

However, as we mentioned before, since tests are generally in a 'pen and paper' format, where children are required to respond to questions or tasks in writing, tests have the potential to exclude children with disabilities, especially those with reading and writing difficulties. Consequently tests should not be used as the only summative assessment strategy and there is a big need for teachers to look for other strategies that match the needs of children with disabilities. This was reflected by the experiences of the teachers in the study. Two of them used other summative assessment strategies for children with disabilities, namely, portfolios and group work activities with the use of checklists and rating scales. One teacher explained the rationale for this approach:

I do not think it is fair to assess the learning of the child just through pen and paper tests. What if the child has other ways of expressing what he or she knows, not necessarily through writing? It is in that reason that as a teacher, I am looking for another strategy that is responsive to the needs of the child. And to be specific, I use portfolios.

Literature highlights the benefits of portfolios (Brady & Kennedy, 2003) because of their features that allow students some degree of choice of entries such as drawing, essays, diagrams, and art works. On the other hand, the use of group work activities with varied outputs allows the students to demonstrate their learning based on their interests or readiness, which is a key characteristic of differentiated learning as mentioned before.

4.4.2 Delivery of Assessment Strategies

How the teachers in this study delivered the various assessment strategies to children with disabilities again demonstrated their sensitivity towards the needs of these children. Instead of sticking to the traditional means of delivering assessments, they took the time out to differentiate and to develop innovative strategies so that the children would be able to give appropriate responses to given tasks. Several empirical studies (e.g. Brady & Kennedy, 2011; McMiller, 2010; Taylor, 2009) suggest that teachers play a critical role in making the classroom atmosphere responsive and relevant to the needs of children with disabilities. This includes how teachers differentiate their instructional practices, part of which is the assessment process. In relation to differentiating instructional practices, the teachers related their assessment practices to the concept of *differenti*ated instruction, which strongly suggests that certain aspects of teaching have to be considered when dealing with diversity, namely, content, process, products, and learning environment. This was manifested by how the teachers continuously considered assessment *content* and *delivery* for those children with disabilities, as we demonstrate in the following sections.

Assessment Content

In terms of assessment content, the use of a child's native *language* in the assessment process was identified as one important strategy. We would like to stress that this practice, in the Philippine context, is believed to enhance learning as exemplified in the K to 12 Basic Education Programme. The rationale behind this is based on strong theoretical justifications that the children learn best through their native language (King & Mackey, 2007; Kosonen, 2005; Malone, 2003). Delivering the assessment to children in their native language allows them to fully grasp the task and provide appropriate responses. This view is strongly linked with one of the principles of dynamic assessment, as stated by Kozulin (2001): 'cognitive processes are modifiable, and an important task of assessment is to ascertain their degree of modifiability, rather than to remain limited to estimation of the child's manifest level of functioning' (p. 23).

Also related to assessment content was the teachers' strategy to adjust the *level of difficulty* and *length* of their assessments for children with disabilities. This was manifested in the fact that if teachers, for example, sensed that children with disabilities were not ready for the level of difficulty of a given assessment, they had to simplify it in order to meet the needs of the children. This is primarily because of the fact that some children may have partial mastery of the content or display mistaken ideas about the content (Tomlinson, 2001). Finally, modifying the length of the assessment, especially shortening it, was one consideration that teachers in our study made under the content of differentiated instruction (Hall, 2002) as a teacher put it:

For weekly quizzes, I usually shorten the items for [name of child]. This is primarily because he easily loses his attention and focus in doing long tests. So instead of taking a 20-item test, I would give him a 7–10-item one.

Assessment Delivery

Four essential categories were identified in under the sub-theme 'assessment delivery', namely, (1) proximity, (2) peer support, (3) use of technology, and (4) time element. According to the teachers, these played an important role in ensuring that children with disabilities were able to effectively demonstrate their learning using varied means of assessment delivery.

As mentioned before, *proximity* and *peer support* as assessment delivery strategies are linked with the Zone of Proximal Development (ZPD) through its mediated learning experiences component. The teachers' purpose of employing these two strategies was to provide assistance to children with disabilities so that they would be able to accomplish certain assessment tasks. This matches what mediated learning experiences are all about—they occur when a more skilled adult like a teacher assists the child to do something that he or she could not do independently. However, it is useful to stress that the employment of mediated learning experiences requires a lot of skill on the part of the teacher in order to ensure that a child will not become too dependent on the teacher. This is where *fading* comes in, a process involving the gradual removal of assistance given by the skilled person to the child, and this was explicitly seen during the class observations in this study.

However, in the Philippine context where teachers teach in large classes, *proximity* can be time consuming and can put too much pressure on the teachers. This is the reason, according to the teachers, why the idea of *peer support* was developed with the aim of utilising the potential of the peers as partners. In the literature there is evidence for the benefits of peer support or the involvement of more learners when scaffolding tasks. For example, Tolmie et al. (2005) showed that scaffolding threesomes for learning tasks produced better outcomes than one-to-one when the tutor focused on the basic task, using group discussion. Moreover, Howe and

Tolmie (2003) in their research on scaffolding foursomes for controlled experiments in primary science lessons demonstrated that scaffolding is effective if the group have an opportunity to first produce a common understanding of the task. Another very important outcome of collaborative learning are its social benefits, namely, the development of social skills of the children involved (see Tolmie et al., 2010).

The assistance teachers gave to children with disabilities in relation to assessment in this study was also translated in *use of technology*. In this context, technology took the form of low-tech materials that were readily available for teachers to use. In the assessment process, both low-tech (that refers to simple technology, often of a traditional or non-mechanical kind) and high-tech (that refers to the most advanced technology available) resources play an important role in ensuring that children receive support that allows them to accomplish tasks. Although in the Philippine context, high-tech becomes more and more available, there are still instances when schools do not have the luxury of accessing it. This results in teachers only adapting existing resources as seen in the practices of teachers in this study:

In making a test for a child with a disability, I always make sure that it does not overwhelm him because it has a lot of texts or the fonts are too small or the spacing is problematic. The test paper itself has to be responsive to the needs of the child.

Finally, it is important to highlight that one strategy for assessment delivery in relation to children with disabilities was the *time element*. This practice reflected the reality that when teachers gave children with disabilities a particular task, the latter needed more time to accomplish it. As shared by one teacher:

Adjusting the time is very important for [name of child] primarily because of the fact that he does have intellectual limitations. I want him to have more time so that he will be able to give his best in answering the test.

Time element is a critical element exemplified in the process of differentiation. Tomlinson (2001) asserts that when teachers deal with the diverse needs of the children in the classroom, the instruction or assessment process has to be differentiated either through flexible groupings or time extension. This strategy allows children to give appropriate responses to the given tasks.

4.5 MOVING FORWARD: POSSIBILITIES AND CHALLENGES

The purpose of conducting this qualitative study was to explore how primary school teachers assessed children with disabilities in mainstream classrooms in a province of the Philippines. The ultimate aim was to contribute to the moving forward of inclusive education in the Philippines. As we noted in the introductory sections, although certain efforts or initiatives on inclusive education have been implemented in the province of Negros Oriental, there seems to be a lack of empirical studies documenting them. The findings of the study presented in this chapter are helpful in moving forward the assessment of children with disabilities in several ways.

Firstly, there was a strong connection between theoretical perspectives on assessment (such as ZPD and mediated learning experience) and the practices of teachers interviewed for this study. We assume that this may be due to the fact that these theoretical perspectives became the basis of education policies related to assessment in the Philippines specifically the K to 12 Basic Education Programme; and policies need to be translated into classroom practices. However, it must be noted that although certain assessment strategies such as tests are a requirement that teachers should practice in the classroom, it seemed that many other strategies used by the teachers in this study were the products of the teachers' own efforts and exploration, at the expense of their personal time. Moreover, the findings of this study provide an important lesson to teachers that in assessing children with disabilities, employment of variety of strategies is a necessity. Sticking to traditional methods without exploring other strategies does not help respond to the diverse needs of children with disabilities. Hence it is important to emphasise that how the teachers assessed children with disabilities demonstrated innovation, creativity, and willingness which are all important ingredients of inclusive education, especially in challenged contexts like the Philippines. This scenario again highlights the teachers' role in the successful inclusion of children with disabilities.

Secondly, this study provided a unique opportunity to listen to the voices of teachers from a small locality in moving towards inclusive education. Interviewing the three teachers in this study created a space for them to share their experiences of assessing children with disabilities. In sharing their experiences, they illustrated many examples of good practice, but also many gaps in terms of the support they receive when implementing inclusive education. We recommend that these voices become an integral part of decision- and policy-making processes. It is high time to close the gap between policy and practice by creating an education system that gives central importance to the voices and experiences of teachers through more studies like ours that will eventually help map current successful practices, identify problems, and create a pool of practice-based evidence.

Thirdly, although it appeared that teachers in this study had a substantial level of awareness of assessment as a concept, we were left with unanswered questions regarding the use of Individualized Education Plans (IEPs) in the process of assessment. We recognise that due to its small sample, our study's findings may have limited generalisability. However, it is useful to note here that the special and inclusive education literature praises the merits of the IEP in the teaching of children with disabilities. In this study, IEP was not a part of the assessment practices of teachers. Taylor (2009) maintains that this happens especially when teachers do not have the capacity to execute the plan because of a handful of other responsibilities that are part of their daily role. Although the mentioned reasons can be regarded as valid, we argue that the value of an IEP should not be underestimated and that efforts are needed to recondsider its use in practice. In addition, it is useful to remind ourselves that differentiating assessment is not only applicable to children with disabilities. Due to the increasing diversity of learners in mainstream classrooms, differentiation has to be employed not only for the selected few but for all learners.

Finally, we recognise that this study has limitations, which can be addressed by future studies. For example, this study had a very wide focus on the types of disability and subject areas. We think that in the future studies, researchers could focus on one specific type of disability and how assessment strategies in the Philippines are used in response to this type of disability. For example, the assessment strategies suitable for a child within the Autistic Spectrum may not necessarily be the same with those that would be beneficial for a child with a Visual Impairment. In addition, we also recommend that specific subject areas are considered in relation to assessment strategies. This means that future researchers could explore, for example, the assessment strategies suitable for a child with dyslexia across different subjects.

In closing, we would like to emphasise that in moving towards inclusive education, the whole education community must strive to explore the perspectives of 'global South' contexts like the Philippines. In contexts where resources are a huge challenge due to poverty, the implementation of inclusive education becomes a herculean effort. It is therefore empowering to note that amidst this hard reality, our study captured instances where inclusive teaching and learning does happen, and this seemed to be thanks to the efforts of dedicated and committed teachers, who are at the forefront of the realisation of inclusive education.

References

- Baessa, Y. (2008). Research in a developing country. American Psychological Association, 12(2), 2–15.
- Black, P., & William, D. (2003). In praise of educational research: Formative assessment. British Educational Research Journal, 29(5), 623–637.
- Brady, L., & Kennedy, K. (2003). Celebrating student achievement: Assessment and reporting. Australia: Pearson Education.
- Brady, L., & Kennedy, K. (2011). Assessment and reporting: Celebrating student achievement (4th ed.). Australia: Pearson Education.
- Brewer, J., & Hunter, A. (1999). *Multimethod research: A synthesis of styles* (3rd ed.). Newbury Park: Sage.
- Carney, S., & Sheppard, V. (2003). *Teaching students with visual impairments*. Saskatchewan: Saskatchewan Learning.
- Chaiklin, S. (2003). The zone of proximal development in Vygotsky's analysis of learning and instruction. Cambridge: University Press.
- Charmaz, K. (2006). *Objectivist and constructivist methods of research*. Thousand Oaks: Sage.
- Cohen, L., Manion, L., & Morrison, K. (Eds.). (2007). Research methods in education (6th ed.). London: Routledge.
- Corbin, J., & Strauss, A. (2008). Basics of qualitative research: Techniques and procedures for developing grounded theory. London: Sage.
- Creswell, J. W. (2007). Designing a qualitative study: Choosing among five approaches (2nd ed.). Thousand Oaks: Sage.
- Davies, D., & Dodd, J. (2002). Qualitative research and the question of rigor. *Qualitative Research*, 12(2), 279–289.
- Department of Education. (2012). The Philippine education system. Manila: DepEd.
- Department of Education. (2015). Republic of the Philippines: Department of education. Manila: DepEd.
- Field, P. A., & Morse, J. M. (1995). *Research: Application of qualitative approaches*. Kent: Croom Helm.
- GPRehab. (2013). Plight of children with disabilities in education in Negros Oriental. Negros Oriental: GPRehab.
- Hall, T. (2002). *Differentiated instruction*. Wakefield: National Center on Accessing the General Curriculum.
- Handler, S. M., & Fierson, W. M. (2011). Learning disabilities, dyslexia, and vision. *Pediatrics*, 127(3), 23-36.

- Howe, C. J., & Tolmie, A. (2003). Group work in primary school science: Discussion, consensus and guidance from experts. *International Journal of Educational Research*, 39, 51–72.
- King, K., & Mackey, A. (2007). The bilingual edge: Why, when, and how to teach your child a second language. New York: Collins.
- Kosonen, K. (2005). Education in local languages: Policy and practice in Southeast Asia. In *First languages first: Community-based literacy programmes for minority language contexts in Asia.* Bangkok: UNESCO Bangkok.
- Kozulin, A. (2001). Psychological tools and mediated learning. In A. Kozulin, B. Gindis, V. Ageyev, & S. Miller (Eds.), *Vygotsky's educational theory in cultural context* (pp. 15–38). Cambridge: University Press.
- Kvale, S., & Brinkmann, S. (2009). InterViews: Learning the craft of qualitative research interviewing (2nd ed.). Thousand Oaks: Sage.
- Lidz, C., & Elliott, J. (Eds.). (2005). Dynamic assessment: Prevailing models and applications. Amsterdam: Elsevier Science.
- Ma, J. (2013, June 16). The heart of an inclusive teacher. The Advocate, 22, 6.
- Malone, D. L. (2003). Developing curriculum materials for endangered language education: Lessons from the field. *International Journal of Bilingual Education* and Bilingualism, 6(5), 332.
- Marshall, C., & Rossman, G. B. (2011). *Designing qualitative research* (5th ed.). London: Sage.
- McMiller, T. S. (2010). Assessment as demonstration of real achievement. International Journal on Inclusive Education, 10(1), 115–131.
- Mertens, D. M. (2005). Research methods in education and psychology: Integrating diversity with quantitative and qualitative approaches (2nd ed.). Thousand Oaks: Sage.
- Miles, S., & Singal, N. (2010). Education for all and inclusive education debate: Conflict, contradiction, or opportunity? *International Journal of Inclusive Education*, 14(1), 14–15.
- Mishler, E. G. (2000). Validation in inquiry-guided research: The role of exemplars. In B. M. Verzuela, J. P. Stewart, R. G. Carillo, & J. G. Berger (Eds.), Acts of inquiry in qualitative research (pp. 119–146). Cambridge: Harvard Educational Review.
- Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). Thousand Oaks: Sage.
- Popham, W. J. (2008). Transformative assessment. Alexandria: Association for Supervision and Curriculum Development.
- Punch, K. F. (2009). Introduction to research methods in education. London: Sage.
- SEAMEO & INNOTECH. (2012). K to 12 toolkit. Manila: SEAMEO & INNOTECH. Retrieved form http://www.gov.ph/downloads/2012/201209-K-to-12-Toolkit.pdf

- Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information*, 22, 63–75.
- Stenbacka, C. (2001). Quality research requires quality concepts of its own. Management Decision, 39(7), 351-355.
- Taylor, R. L. (2009). IEP and the assessment of exceptional students. *International Journal of Inclusive Education*, 22(11), 238–272.
- Tolmie, A., Thomson, J. A., Foot, H. C., Whelan, K., Morrison, S., & McLaren, B. (2005). The effects of adult guidance and peer discussion on the development of children's representations: Evidence from the training of pedestrian skills. *British Journal of Psychology*, 96, 181–204.
- Tolmie, A. K., Topping, K. J., Christie, D., Donaldson, C., Howe, C., Jessiman, E., et al. (2010). Social effects of collaborative learning in primary schools. *Learning and Instruction*, 20, 177–191.
- Tomlinson, C. A. (2001). *How to differentiate instruction in mixed ability classrooms* (2nd ed.). Alexandria: Association for Supervision and Curriculum Development.
- UNESCO. (2015). The Philippine case study. Philippines: UNESCO.
- Wininger, R. S. (2005). Using your tests to teach: Formative summative assessment. *Teaching Psychology*, 32(2), 164–166.
- Woods, P., & Pratt, N. (2006). *Qualitative research*. London: Open University Press.