CHAPTER 6

A Phenomenography of Educators' Conceptions of Curriculum: Implications for Next Generation Curriculum Theorists' Contemplation and Action

Jazlin Ebenezer, Susan Harden, Nicholas Sseggobe-Kiruma, Russell Pickell and Suha Mohammed Hamdan

A task of the curriculum theorists for the twenty-first century is to engage educators in critiquing the various ways theorists conceptualize curriculum. Educators need opportunities in curriculum studies courses to critically analyze and assess the relative worth of the underlying assumptions and values of curriculum theories. Teacher educators are responsible for enabling the next generation of educators in curriculum studies

J. Ebenezer (✉) · S. Harden · N. Sseggobe-Kiruma · R. Pickell · S. M. Hamdan
Wayne State University, Detroit, MI, USA
e-mail: aj9570@wayne.edu

S. Harden
e-mail: susan.harden@wayne.edu

N. Sseggobe-Kiruma
e-mail: fn8034@wayne.edu

C. Hébert et al. (eds.), *Internationalizing Curriculum Studies*,
https://doi.org/10.1007/978-3-030-01352-3_6

to experience curriculum "*in particular ways*" (Marton and Booth 1997, p. vii). Consequently, we must understand the various ways in which we conceptualize curriculum. In this chapter, we discuss how a phenomenographic eye can discern the different historical and contemporary conceptions of curriculum and highlight them in curriculum studies courses.

Phenomenography is an empirical approach that originated in Sweden (Marton and Tsui 2004). It is a research tradition in which the qualitative differences of how people experience, perceive, conceptualize, and understand the same event are inductively analyzed to determine their influence on an individual's reality (Akerlind 2008). This approach has been one of the most influential developments in higher teaching and learning in the past three decades (Bradbeer 2004). Within the framework of phenomenography, "qualitative changes occur through learning to transform an individual's reality" (p. 53). Thus, phenomenography is grounded in a theory of learning can serve as an analytical tool to describe, interpret, and represent categories of curricular conceptions (Ebenezer and Fraser 2001). Although curriculum courses may carry out rich discourses about curriculum and engage educators in reflective practice, there is no study to our knowledge that has mapped the variations of educators' conceptions.

This research took place in the context of the doctoral seminar: a curriculum and instruction course at Wayne State University, Detroit, Michigan, in the fall of 2014. The course was 15 weeks long. The lead author has taught this course for many years. Twelve doctoral students (educators) from diverse educational and ethnic/racial backgrounds were in the doctoral seminar. Some of them are the co-authors of this chapter. The prescribed textbook for the course was *Pragmatism, Post-modernism, and Complexity Theory: The "Fascinating Imaginative Realm" of William E. Doll, Jr.*, edited by Donna Trueit (2012). During the doctoral seminar, we discussed Dolls' reflections on his experiences in becoming a curriculum theorist; the process of transformation of learning theorists such as Dewey, Piaget, Bruner, and Whitehead; structures, forms, and organization of modernism and postmodernism; and teaching.

R. Pickell
e-mail: rpickell@riverviewschools.com

S. M. Hamdan
e-mail: suha.mohammed.hamdan@wayne.edu

The research focused on the educators' reflections on the classroom discussion of curriculum issues via Blackboard's discussion board. The outcome of this research is the educators' conceptions of curriculum. At the outset, we discuss the different conceptions of curriculum theorists over time.

A Phenomenography of Curriculum

Internationally, curriculum theorists conceive curriculum differently regarding its content, aims, and the process of enactment in different philosophical, socioeconomic and political contexts. The theorists' conceptions of curriculum engender the metaphors that they posit in theorizing about curriculum to find answers to curriculum questions. For instance, Pinar and Grumet (1976) situate curriculum as an autobiographical text and posit narrative as the theoretical basis for its conceptualization, whereas Schwab (1983, 2013) conceptualizes curriculum as a communal and participatory process that leads to bodies of knowledge. This view of the curriculum is rooted in understanding the learners' communities and contexts for making decisions about what constitutes legitimate knowledge concerning who should teach it and to whom. Hurren (2003) theorizes curriculum as "the medium that creates the space for telling" (p. 120), where curriculum occurs within contextual stories. And Norman (2003) takes up curriculum and its theorizing as a dream work embedded within the mystical and metaphysical realm.

Dillon (2009) underscores the fact that the incoherence and divergence of opinions among scholars render the strict definition of curriculum futile. However, in response to Schwab's seven curricular elements, Dillon proposes seven corresponding curricular questions. Dillon argues that these "seven elements constitute an entity or enterprise called curriculum" (p. 348). Dillon further notes that "practice in *the curriculum* field is not a matter of brute action but thinking-in-action" (p. 349). The study of the ways to think and act through curriculum enactment has been a domain of curriculum development, which has morphed into curriculum studies.

In retrospect, Hlebowitsh (2005) hails Schwab for keeping what Hlebowitsh calls, generational ideas, that is, focusing on "the development of the school experience and on the relevance of local school authority" (p. 73), and for his new outlook at curriculum. He showed us the way toward a more participatory process in curriculum decision making. This commitment "kept the school close to the hands of the people and the practitioners that produced better teacher ownership of and investment in school reforms" (p. 86).

As Westbury (2005) makes clear, contemporary curriculum studies now focuses on understanding curriculum itself rather than on the "traditional narrow focus of doing curriculum work" (p. 89). Understanding curriculum, as Weenie (2008) asserts, "is about acknowledging lived pedagogy" (p. 549), or, as Aoki (2003) puts it, acknowledging "the site[s] of chaos in which dwell transformative possibilities" (p. 6). Understanding the historical foundations of curriculum studies and its theorizing is crucial for scholars and practitioners to situate themselves as active enactors who can contribute to the growth of our curriculum field.

Bellack (1969) notes that the purpose of a historical inquiry into curriculum thought "should not be viewed as a search in the past for solutions in present-day instructional problems" (p. 291). Rather we should perceive curriculum as a narrative "to help make us aware of the possibility and complexity of curriculum change, and conscious of the carryover of past doctrines and practices into the present situations" (p. 291). Further to this, curriculum scholars should not separate the history of curriculum thought and practice from the general history of American education. The curriculum knowledge development should be part of "the broader stream of cultural and intellectual history" (p. 291).

Historical Moments in Curriculum Knowledge Development

According to Pinar (2014), there have been three historical moments in the development of curriculum as a field of study in the USA, which have had a significant influence on its public school system and education systems across the globe. For us, the first moment, which lasted five decades (1918–1969), was the inauguration of the curriculum field and its stabilization as curriculum development. The first part of the second moment was a decade long (1969–1980) during which scholars focused on re-conceptualizing curriculum development into curriculum studies. During the second part of the second moment (1980–2001), curriculum scholars aimed at understanding curriculum as an interdisciplinary and paradigmatically organized academic field.

Emerging in 2001, a third moment, characterized by the internationalization of curriculum studies, is what we call the postmodern era (Ropo and Autio 2009; Sohoni and Petrovic 2010). The overarching curricular concerns among scholars during the third moment included the nature of knowledge, the process of knowing, the professional status

of the new specialty of curriculum making, and procedures for introducing new curriculum insights into educational practice on a broad scale. Caswell (1966) observes that the 1920s through 1930s were the years of the organized curriculum movement. During this period, curricular specialists focused on guaranteeing sound sequence in the curriculum, establishing consistent relationships between general goals of education and specific objectives that guide curricula design and enactment. The trend of curricular thought in the 1920s through 1930s, according to Pinar (1977), was the fruit of the practical concerns of curriculum specialists working with school personnel to revise the school curriculum. Curriculum specialists at that time, Pinar (1977) argues, were "former school people whose cultural and intellectual ties *tended* to be with the practitioner" (p. 3). They were "less interested in basic research, theory development, [and] parallel theoretical movement in other fields than in the reality of the classroom and school settings" (p. 3). Kliebard (1968) described this social efficiency movement as an educational moment in time, which sought to hold "up all school subjects, indeed all school activity, against the criterion of social utility" (p. 75).

According to Pinar (2014), Ralph Tyler's (1950) *Basic Principles of Curriculum and Instruction* ushered in the first paradigmatic movement. Doll (1972) reminds us that Tyler's *Rationale rested* on four fundamental questions: What goals should a school seek? What means should it use? How should these means be organized? How should the effectiveness of these means be organized? In his criticism of Tyler's *Rationale*, Doll notes that the preset, standardized, and goal-oriented curriculum fell short of engaging the learner in the determination of the objectives or ends of the learning process. Arguably, Tyler's conception of curriculum influenced his focus on its enactment. Tyler's view of the learner as a product of a preset process in which the learner was a passive consumer of the curriculum laid the foundation of his curriculum theorizing. Tyler seems to have borrowed the concept of behavioral objectives from behavioral psychologists such as, but not limited to, Edward Lee Thorndike (1874–1949), Burrhus Frederick Skinner (1904–1990) and Robert Gagne (1916–2002). From a behaviorist's perspective, knowledge is finite while learning is overt, measurable, and observable through behavioral changes in the learner (Cunningham et al. 2007). The teacher then determines the objectives that the learner should achieve ahead of the lesson. Curriculum practice based on Tyler's principles, and

as influenced by behaviorist learning theories, was—and still is—rooted, in linearity and a step-by-step approach to teaching.

During the 1950s, the criticisms of the quality of the US public school system intensified and even more so after the Soviets launched Sputnik. "Sputnik launched," as Pinar (2014) makes clear, "a persisting curricular obsession with science and technology" (p. 521). Such educational obsessions lead to curriculum reforms that "yielded a quasi-official doctrine of rational curriculum planning embedded in large-scale curriculum projects … notable for their global orientation, teacher-proofing and discipline-specificity" (Sears and Marshall 2000, p. 200). For Pinar (2014), the charge that the quality of the US public school system needed revamping was the irrationality, which politicians deployed to wrestle the curriculum away from teachers and university curriculum development specialists. Further to this, Cornbleth (2008) notes that even though external events (Sputnik, 1957 and the Vietnam War, 1965–1975), internal events (US Census, 2000 and the Terrorist Attack on the World Trade Center, September 11, 2001), and sociopolitical economic forces (the Great Depression of 1930s; the Civil Rights Movement of the 1950s–1960s; the Bush administration, 2001; the Economic Depression, 2007; the Obama administration, 2008–2016) seem to have influenced US curricular thought over the decades, "there has been relatively little systematic examination of what makes a difference, when, where and how" (p. 144). Sears and Marshall (2000) observe that during the 1950s, conceptualizing curriculum the Tylerian way dominated the field and behavioral objectives became the mantra for curriculum enactment. However, Sears and Marshall also report the existence during this period of a dichotomy among curriculum specialists where one group focused on "curriculum in a pure or theoretical sense" (p. 201) and another group emphasized "life in schools as their starting point" (p. 201).

A generation of curriculum theorists came of age during the 1960s era of "political activism, civil rights marches, anti-war rallies and acts of civil disobedience" (Sears and Marshall 2000, p. 201). At that time James Macdonald, a curriculum generalist, argued that education should be grouped within the humanities and not the sciences (Sears and Marshall 2000). The discipline "is made up," Macdonald (1971) told us then, "of problems in social policy, social decision making and social action" (p. 121). According to Wraga and Hlebowitsh (2013), a different generation of curriculum scholars emerged at the beginning of the 1970s

that "pronounced the historic curriculum field 'dead' and launched a self-styled reconceptualization of curriculum studies" (p. 426). In 1973, William F. Pinar planned a landmark conference, which in turn was attended by a growing band of new curriculum revolutionaries who provoked the "re-conceptualization of the curriculum studies as political, historical and autobiographical" (Sears and Marshall 2000, p. 204). Pinar brought to the fore a reconceptualization of curriculum which engendered a new path to curriculum theorizing. Pinar's reconceptualization of curriculum, now rooted in politics, history, and autobiography, pronounced life narrative as the new way of conceptualizing curriculum. Davis and Sumara (2000) describe their frustrations as student teachers during the 1970s when a behaviorist doctrine still reigned:

> As we each learned more about working with different groups of students, in different schools and communities, amid tremendous social, economic, and political change, it became obvious that learning outcomes could not be contained by orderly boxes, and teaching intentions refused to be bounded by the tidy grids we had been asked to create. (p. 822)

Evidently, until the 1970s, the knowledge that would lead to social efficiency underlay curriculum theorizing, inquiry, and practice as the goal of the educational enterprise. The most effective way to enact the curriculum was the Tylerian preset-behavioral-objectives-step-by-step approach.

The identification of curriculum workers in the curriculum field and their respective roles in curriculum development characterized the latter part of the second moment. Sears and Marshall (2000) observe that curriculum specialists at this time "continued to borrow freely from a variety of academic disciplines while focusing on the cultural struggle and everyday life, the competitive ethos, and the moral and spiritual crises in education" (p. 208). Hilda Taba's (1902–1967) hallmark book, *Curriculum Development: Theory and Practice* (first published in 1962), drew significant attention in curriculum theorizing, inquiry, and practice during this moment. Taba's philosophical ideas on curriculum theory and curriculum development embraced four principles (Krull 2003). First, social processes are nonlinear, and sequential planning cannot model curriculum. Second, social institutions, among them school curricula and programs, are more likely to be defensibly rearranged if the leaders can use a reliable and coordinated system of development from bottom to top.

Third, the development of new curricula and programs is more effective if democratic principles guide the distribution of work. Fourth, the renovation of curricula and programs is not a short-term effort but a long process, lasting for years.

Having worked with John Dewey, Ralph Tyler, and Benjamin Bloom, Taba's work not only furthered some of her colleagues' ideas but also put forth some modifications. One of Taba's major contributions to curriculum theorizing was her conceptualization toward understanding curriculum about nonlinearity. Taba explained that ends and aims were not simple and easily comprehensible units. Therefore, it was unreal and impossible to set up rigid educational goals to develop specific objectives for a concrete plan (Krull 2003). Taba's bottom-up efficiency approach to curriculum theory, inquiry, and practice was also key toward re-conceptualizing and democratizing the processes of curriculum development (Krull 2003). Taba's metaphorical language included notions such as a "spiral curriculum"; "a multiplicity" of learning objectives; "strategies of learning"; and "inductive teaching," all of which were rooted in her conception of a flexible and nonlinear curriculum.

The mid-1980s witnessed the development of *Naturalistic Inquiry*, published by Lincoln and Guba (1985), who propounded a new research paradigm that challenged the dictatorship of the popular rationalistic or scientific method. Naturalistic inquiry emphasized research in natural settings, qualitative research methods, the human as a research instrument, purposive sampling, grounded theory, emergent design, inductive data analyses, negotiated outcomes, case study reporting, idiographic interpretation, tentative applications, special criteria for trustworthiness, and focus-determined boundaries. A naturalistic paradigm intended to aid social scientists in investigating behavioral and social issues. The paradigm brought about a new conversation not only to the landscape of curriculum research, inquiry, and practice but also to research and inquiry in various fields (Lin 2012). A naturalistic approach moved hand in hand with the social constructivist view of reality advanced by Berger and Luekmann (1967). Social constructivists posited that individuals develop subjective meanings of their experiences to understand reality in the world. The subjective meanings are negotiated socially and historically within the individual's life settings through interaction with others (Creswell 2014). Social learning theorists including Lev Semavovich Vygotsky (1896–1934), Albert Bandura (1925–present), and Michael Eraut espoused the concept of learning as social interaction

and knowledge as co-creation through cooperation, interaction, and negotiation among individuals (Cunningham et al. 2007). According to Wertsch (1985), the constructivist movement re-emphasized the active role the students play in acquiring knowledge and in the social construction of knowledge as an important principle in sociocultural theory. The interfacing and intermingling of social constructivist concepts and those of social learning theorists rooted in the milieu of naturalistic inquiry ushered in a new and different way of engaging with curriculum theorizing, inquiry, and practice.

Curriculum scholars of the second moment of the curriculum field also borrowed some concepts and principles from the proponents of the humanistic theory of learning including John Dewey (1859–1952), Alexander Sutherland Neill (1883–1973), Carl Rogers (1902–1987), and Abraham Maslow (1908–1970). Knowledge, for the humanists, is deemed infinite with limitless possibilities. The learner's potential for growth is considered to be boundless. Therefore, learners only need to be empowered to take charge of the learning process for them to unleash their potential for growth. The teacher then is a facilitator of the learning process and is responsible for creating an enabling environment in which the learner explores new ideas through reflection and critical inquiry (Cunningham et al. 2007). The metaphors of the humanistic language included words such as "self-worth," "self-esteem," "self-actualization," "reflection," and "self-analysis" pointing to the centrality of the learner's engagement in the learning process and of meeting the learner's needs. The individual learner and the learners' social, political, economic, and cultural context or setting became central to curriculum theorizing and enactment in an endeavor to answering the call for "learner-centeredness."

The third moment of curriculum, which we date back to 2001, is characterized by the internationalization of our field and is a process that promises another paradigmatic shift. This third moment sought to invite "cosmopolitan curriculum research" and challenge "the disabling provincialism of American exceptionality" (Pinar 2014, p. 525). Among the outstanding curriculum theorists of the third moment is William E. Doll (1931–2017). Rooted in John Dewey's belief in science and the methodology of experimentation and the interactional concept of change (Schecter 2011), Doll delves into "devising a curriculum that is dynamic, emergent, transformative and non-linear" (Trueit 2012, p. 1). Like Dewey, Doll believes that it is through reflection and interaction on

situations in the present and those in the past that individuals grow intellectually. According to Trueit (2012), Doll underscores the importance of reflective thinking as a process that brings about transformation within the individual and in the environment through the subject's interaction with other subjects in that particular environment. Doll borrows concepts and ideas from various curriculum theorists and educational philosophers in an eclectic fashion while modifying some and creating new ones to propose a "new" conceptualization of curriculum and the entire education enterprise. Doll puts forth the idea that nature is complex, fractal, self-organizing, and turbulent, drawn from contemporary science, complexity theory, chaos theory, and fractal geometry. His complex conceptualizations of curriculum underlie his fervent proposal for the urgency to follow a new path of curriculum conceptualization, inquiry, and practice.

In 1967, Whitehead observed "the problem of keeping knowledge alive, of preventing it from becoming inert … is the central problem of all education" (as cited by Doll 2005, p. 5). Reflecting on Whitehead's assertion, "ideas," Doll argues, "are inert when they are disconnected, atomistic, isolated" (p. 111). Ideas are not related to the practicalities of life, an individual's interests, or the field of which they are part. Doll's view of curriculum as dynamic, emergent, nonlinear, and transformative influences his perception of the kind of knowledge that is of greatest worth and how that knowledge should emerge during the teaching and learning experience. For Doll (2002), teaching is journeying with others on "a path of learning engagement and personal transformation" (p. 97). Doll employs several sets of metaphors in advancing curriculum theorizing, inquiry, and practice. Doll proposed a curriculum that is rich, relational, recursive, and rigorous (the 4Rs). The 4Rs were supplemented by the 5Cs, namely currere, complexity, cosmology, conversation, and community that engendered complex thinking. Doll also proposed play, precision, and pattern (the 3Ps) as methods for curriculum enactment. Lastly, Doll espouses spirit as curriculum in the third space; science and story are the first and second spaces, respectively.

Some contemporary situational learning theorists including Etienne Wenger, Jean Lave, Paul Hager, and Stephen Billet share some of the concepts that Doll propounds for the curriculum in the third space. Situational learning theory emphasizes the integral link between learning and the social environment (Cunningham et al. 2007). Here, knowledge is meaningful in a particular context in which it is learned, and

social interaction is a fundamental part of situated learning. Social learning theorists use metaphors such as sharing ideas, views, and opinions, the co-creation of knowledge, and interactive negotiation during the learning experience. Doll with Trueit (2012) and Mason (2008) warn that a complex relationship in curriculum cannot be reduced because the whole is greater than its parts. Thus, discerning curriculum complexity requires a balance of intellectual struggle and understanding that can be achieved reflectively (Rasmussen 2012). Instead of taking what someone else says to be true, reflection allows thinkers to generate their own "truth." Dewey calls this process reconstruction or reinvention of knowledge, a by-product of humans reflecting on their experiences (Doll 1993). Knowledge is the interaction of thinking and experience; it does not exist independent of human experience; it exists through acting reflectively. Reflection on any past or present situation allows one to grow intellectually (Doll 1993). It is through reflective practice that individuals are persuaded to transform their thinking and commit to renewed practice. For this imperative, curriculum theorists should not only theorize about curriculum but also take on the task of doing empirical research at the intersection of theory and practice.

Such assumptions of curriculum knowledge growth persuaded a teacher educator to engage her students (referred to as educators in this study) to reflect on curriculum through reading and face-to-face classroom interaction. Thus, the following research question framed the study at hand: What are educators' qualitatively differing conceptions of curriculum?

Methodology

All twelve students, three males, and nine females enrolled in the doctoral seminar (curriculum and instruction course) participated in the study. There were four African Americans, seven Caucasians, three people who identified as Middle Eastern, and one Asian American, with diverse experiences from various countries. The educators represented varying professions with the majority in an educative role.

Each week two or three educators led the class discussion about the complexities of curriculum discourse. Throughout the semester, as part of their assignment, the educators were expected to keep a reflective journal to explore their and peers' evolving thoughts, questions, and ideas of curriculum theory. With the aid of their journal writing, they also dialogued on Blackboard. Based on their journal writing and

e-dialogues, each educator wrote two sets of reflective papers consisting of five pages.

All twelve educators consented to use their reflective papers and Blackboard dialogues for this study. We downloaded e-dialogues from the system. For ethical reasons, data analysis began only after the course was complete, and the marking period was over.

We assigned a letter code and a pseudonym to each educator. All twenty-four reflective papers and discussion board dialogues were carefully read and critically analyzed using phenomenography. Through an iterative process, each author of this study color coded and labeled the common conceptions to develop the descriptive categories. To agree upon the descriptive categories for ensuring inter-rater reliability and validity, we held three one and one half hour meetings. These results were subsequently presented to two researchers within the curriculum field to critically analyze the match between the descriptive categories of educators' conceptions, excerpts of educators' reflections as evidence, and researchers' interpretations.

Results and Discussion

Based on educators' reflections, we depicted three descriptive categories of conceptions of curriculum theory focusing on student learning. They are as follows: promoting openness and flexibility, listening to students' voices, and engaging in reflective thinking.

Promoting Openness and Flexibility

A curriculum that promotes openness and flexibility for student learning was the focus of educators' discussion. For example, Aaliyah reflected on Randall's comments about students needing the freedom and encouragement to think outside the existing paradigms.

> Randall stated that the current educational models are framed with no realistic expectations of students' needs and growth in mind. We must, therefore, encourage students to reinvent the wheel and work outside the given paradigms. Randall's comments are in line with what Doll speaks about regarding [the] learners' reinventing the wheel. Doll believes learners should be helped to transform and blossom their intellectual powers and creativity through the interaction and the connection of their learning to the real-life contexts. (Aaliyah, November 10, 2014)

Randall, according to Aaliyah, is of the view that current educational models neglect students' need and growth. Pointing to Randall's connection to Doll's notion of "reinventing the wheel" rather than thinking about it in a traditional sense and not requiring students to reinvent what has been known, Aaliyah states that a child's learning should involve connections to and interactions with real-life contexts that will transform "intellectual powers and creativity."

Kristen notes that the notion of "reinventing the wheel" for students is likely only in an educational system where administrators, teachers, and students are in synchronicity and are adaptable (Doll 1993, p. 193).

> This ability to reinvent the wheel and allow the educational experience to progress organically is only possible when all parties recognize its importance and allow[s] the programming to be adaptable at the administrative, teacher, and student level. Curriculum focused on the intellectual and emotional relationships becomes less objective and deterministic. This promotion of creative thinking and freedom breathes new life to Doll's "spirit" and "story" in an educational setting. Teacher adaptability and flexibility is how curriculum can become rich and full of possibilities. (Kristen, October 6, 2014)

Kristen notes, reinventing the wheel is possible only when programming can be adaptable "at the administrative, teacher and student level." The curriculum can become less "objective and deterministic" when it focuses on "intellectual and emotional relationships." Creative thinking and freedom breathe life into Doll's spirit and story for learning allowing critical thoughts to emerge from interactions, not impositions. When the teacher qualities of "adaptability and flexibility" to make the curriculum rich with possibilities are absent, a student learning to think critically would be hampered. Thus, teachers should be allowed the flexibility to model traits of adaptability in the classroom.

Educators highlighted situations where teachers strive to be adaptable, but administrators restrict deviations from programming.

> Melissa feels that the curriculum she is teaching is more passive, and certainly more restrictive. She is asked to follow scripted lessons and not deviate from the given scripts. This is extremely restrictive for both the teacher and the learner. (Sarah, November 10, 2014)
>
> If teachers are not given space, trust, and respect, they will be like obedient servants. (Saina, October 6, 2014)

> Educators need the freedom to promote abstract thinking and creativity in curriculum. When educators are placed in a facilitative role, learners can craft their own experience and advance to a more experiential learning style. (Kristen, October 6, 2014)

In essence, educators' reflective thoughts as revealed by the above excerpts suggest that they do not have the autonomy to adapt and create their curriculum, but must follow "scripted lessons and not deviate" as mentioned by Sarah. Saina's image of this restriction is that of an "obedient servant" to a master. Kristen highlights the need for teacher "freedom" to promote thinking and creativity to design a curriculum that will facilitate "experiential learning." Thus, it is necessary for administrators to be more cognizant of teachers' notions of teaching and learning rather than focus on their programming.

In contrast, situations might characterize administrators who are open to change that empower and encourage teachers to try new teaching strategies only to find teachers' reluctance to abandon old strategies.

> Randall stated, "What happens if your set objectives are not being met and your instructional methods are not getting students to learn?" A good teacher should be adaptable. We need teachers to be creative people who discover the learner's path. (Noah, October 6, 2014)

If the teacher is not adaptable enough to change instructional methods to promote students' learning needs, the class agreed with Noah that instruction and student learning would be limited. Teacher buy-in, or rather lack of buy-in, may be one reason for inflexibility in teaching. Akerlind (2008) suggests that learning should be student centered and teachers should turn their attention to what students are experiencing in class and how their actions impact student learning.

In analyzing the different dynamics of an administrator/teacher relationship, there exist situations of synchronicity, but both are unadaptable to the needs of students according to the following excerpts:

> Sarah stated, it would be nice if all teachers had the opportunity to be creative and drive curriculum in a creative way, but in a system of high accountability teachers and administrators are afraid to try. (Randall, November 10, 2014)
>
> To have all students do the same problem, text, exercise in the same uniform manner is an inefficient way to teach and a poor way to learn

> (Noah, November 10, 2014). In discussing current educational conditions in urban public schools, Trisha said it seems that the art of teaching has been abandoned and teachers have been replaced with technicians. (Randall, November 10, 2014)

The accountability expectations of current teaching might be a leading cause for creating a system of restriction and frustration for both teachers and administrators. In this situation, both teachers and administrators do not feel empowered to provide what is necessary to educate students. In an era of high accountability, teachers and administrators find it easier to follow the status quo and not adapt. In urban public schools, teachers have been reduced to mere "technicians" according to Randall. Unfortunately, such constraints do not allow teachers to promote abstract thinking within the lesson, to give students an opportunity to craft their own experience, and to explore the "spirit" of the subject (Doll 1993).

Discussion occurred around the idea that teachers take responsibility for continuous learning to be adaptable to meet curriculum challenges. Dana and Melissa reflected on the preceding issue:

> Kristen expressed her view by stating that we do not shape curriculum, curriculum shapes curriculum and that we are bound to make mistakes because we are always faced with challenges. It is our responsibility to learn. (Dana, October 6, 2014)
>
> Teaching is not a set process, it's about your interaction. Let's use rigor, let's play, and let's make mistakes because we are shaped by curriculum. We don't make it. It's about being and it's our responsibility to go out there and learn. (Melissa, October 6, 2014)

Dana reminds us that "curriculum shapes curriculum" and teachers are "bound to make mistakes." She takes up the responsibility to learn, a trait of teacher adaptability. Melissa states that curriculum shapes teachers because they "don't make it." Like Dana, Melissa also understands that making mistakes is normal and teachers take the "responsibility to go out and learn." Teacher concern is caused by a continuous change in the profession and teachers are continually operating in an atmosphere of chaos (Doll 1993). For instance, contemporary curriculum and teacher professional changes include instructional technology advances, instructional best practices, and school climate and demographics. As well, the strength of the teacher is measured by their ability to learn and adapt to

meet curricular and professional challenges. For this reason, Dana and Melissa bargain for making mistakes and taking responsibility to learn new knowledge advancements and meet new curricular expectations (the attributes of teacher adaptability).

Listening to Students' Voices

During the doctoral seminar, discussion revolved around the notion of considering students' voices as curriculum frameworks. This view is evident in the following excerpts.

> The idea of teachers relinquishing power to students is a change oppositional to the current curriculum pattern. Essentially, the students' ideas would be used in the construction of curriculum or added into the existing curriculum. Furthermore, the teacher would sacrifice the power of being the expert and join the students in their world to create experiential learning. (Kristen, November 10, 2014)
>
> A complex curriculum designed by teachers with student input would most likely benefit the students more than a linear program that has goals set by someone other than the intended user. (Thea, November 10, 2014)

To incorporate students' ideas into existing curriculum and to join with students to create experiential learning were viewed by Kristen as a sacrifice of expert power. Thea points to the complexity of curriculum with students' input and suggests that such a curriculum will benefit students more than a linear one. As Doll (1993) contends, when power lies outside the entity, the rules are designed and enforced by the powerful. In our postmodern era, the current methods dictate that the teacher is in power and will control the learner's thinking. The systematic and explicit use of students' conceptions in curriculum redesign supports Doll's notion of power, which was emphasized by the teacher educator of the doctoral seminar course based on the "variation theory of learning" underpinning phenomenography (e.g., Wood et al. 2013). These authors contemplate on the need for teachers to relinquish power to students by incorporating students' conceptions of natural and social phenomena and negotiating expert explanations with them. The educators' conceptions of the curriculum are rich with examples of the usefulness of encouraging student power over curriculum content. One way of releasing teacher power resides in viewing curriculum, not as a set of pre-determined structures and goals but as a way to provide freedom of learning:

> Freedom of learning must come into play to help children be creative, ask questions, inquire, and look for answers. (Noah, November 10, 2014)
>
> Teaching students how to think and make real connections between knowledge and real-life experiences should be one of the main themes in curriculum development. In this approach, learners are motivated to make their own reflections, understanding and learning, and raise questions. (Saina, November 10, 2014)

The discourse in class challenged how educators may work with the existing curriculum although they felt constrained by it. One way of overcoming their challenges is to incorporate students' ideas into the curriculum. Another way to work with the curriculum is not to view the curriculum as a set of rigid guidelines to be covered, but to uncover the core ideas and standards using a more inquiry-based approach.

Noah and Saina point to elements of inquiry. An authentic inquiry process is the exploration of ill-structured problems, open to variations of meaning and solutions. The inquiry-based curriculum allows for reflective practices requiring the learner to interact with concrete experiences and find a relationship with abstract thought (Patary-Ching and Roberson 2002). These authors state that inquiry provides a learner-centered, curricular framework that ensures learners see the world through a lens of questioning which allows them to make changes and adjustments to their thinking, experiment with tools in their environment, invent new tools, and venture further into their inquiries. Such an inquiry process does not lend itself to certainty and precision. Doll (1993) likens inquiry curriculum to an ecological view, rich with ambiguity and uncertainty and evolving. This image of learning enables a teacher to take the back seat and provide students the driver's seat for learning.

Engaging in Reflective Thinking

Several educators focused on reflective thinking for learning within today's educational system. Excerpts follow:

> Children need to be reflective in order to learn. Being reflective allows students the opportunity to assess what they do well and what improvements they need to make. It is seeing relationships between materials being presented and making connections with real-life situations and experiences. It is creating new and original expressions of what is known and understood. (Melissa, October 6, 2014)

> A true learning experience is one that is naturally felt and reflected upon, analyzed, and compared. The purpose of growth should be further growth. Constraining, or molding, the minds of the youth is not an option in this era. (Aaliyah, October 6, 2014)
>
> Reflective thinking invites subjectivity into the classroom which opens up spaces for multiple opinions; consequently, students are exposed to various points of view, open-mindedness, deeper understanding, and much growth. It is important for teachers to support students in order to engage them in a constant reflective process that allows room for broader, nonlinear development. (Saina, November 10, 2014)

Aaliyah suggests that "true learning experience" has several characteristics and one of them is reflection. Melissa and Saina observe distinct values of reflecting thinking. Saina calls teachers to open up space to invite variations in views and to be open minded so that students will develop a deeper understanding and grow intellectually. Saina admonishes teachers who constantly engage students in reflection that "allows room for broader, non-linear development." While some educators reflect on the importance of students' reflecting on their learning, Noah places the responsibility on parents and teachers to be reflective and to bring reflective thinking to student awareness.

> Families and schools are not attuned to reflective thinking. Perhaps, the discourse on reflective thinking was not and is not pervasive enough to inform and influence teacher training programs and teacher practice. (Noah, November 6, 2014)
>
> There is a need to bring reflectiveness to the children in order to facilitate their journey to intellectual growth. We must engage parents and teachers in reflectiveness if children are to engage in reflective thinking in the learning process. (Noah, November 10, 2014)

Noah alludes to the idea that families and schools are not attuned to reflective thinking. He blames the discourse of reflective thinking itself, suggesting that it did not have a powerful influence on teacher preparation and teacher practice. Noah argues that student reflectivity is important for their intellectual growth, but this can be accomplished if parents and teachers engage in reflection. In line with Noah's concerns on teacher reflections, Latta and Kim (2011) make a similar case. Not only can the student learn from reflective practices, but the teacher can learn and improve on their practice through inquiry, specifically narrative

inquiry that allows teachers to interrogate their teaching and learning by negotiating how the past, present, and future recursively interact with each other.

Curricular Implications

This study used phenomenography as a learning theory and an analytical tool espoused by international scholars to identify descriptive categories of educators' conceptions of curriculum theory, all concerning learning (Ebenezer and Fraser 2001; Marton and Tsui 2004). Thus, this phenomenographic research has implications for curriculum theorists, practitioners, and researchers. Educators are admonished to practice adaptability to embrace openness, nonlinearity, and complexity in the curriculum. They are encouraged to explore students' conceptions to incorporate into the curriculum for explanatory transformation and shaping inquiry. Teacher educators need to model such practices in their university classroom to deepen their students' understanding of curriculum and to promote reflective thinking for learning. For continued growth, our doctoral students need to build knowledge through reflection and interactive discourse.

In this study, the educators focused on the conditions for quality learning, perhaps because most of them were classroom teachers and student learning was crucial to them. Exploring educators' conceptions of curriculum theory in the university classroom is important to understand the curricular issues that confront them. Furthermore, educators have the time and opportunity to engage in discourse with peers at a similar knowledge level. There is also increased likelihood for educators to undergo transformative experience based on the exposure to the curriculum theorists' tasks from the perspectives of their interpretive communities to advance knowledge.

Based on the variation theory of learning, this study provides educators the context to contemplate on various curriculum views. The reason is that they think about curriculum as the dispersion of perspectives existing at a given time in history rather than a progression getting better and better to find the most plausible theory as in science. The preceding argument is vital to narrowing the disconnect between curriculum theory and practice, and between universities and schools because practitioners do not believe in curriculum theorists or have confidence in adopting what they have to say (Petrina 2004; Pinar et al. 1995).

Curriculum theories are also often dismissed because of the enactment of standards, increased accountability, and high-stakes testing (Au 2011). Thus, this study gives the educators an alternative focus through the variation theory of learning to contemplate on one interpretive community of curriculum, a postmodern perspective, so that it becomes a part of their professional repertoire. Perhaps the kind of curriculum theorizing, inquiry, and practice that Doll (2003) proposed is the new direction for international curriculum scholars to reconsider. Curriculum, as Doll succinctly puts it, "honors, *and* utilizes the ineffable, the aesthetic, the creative, the passionate, the awe-inspiring … *while* engaging difference with a sense of passion, play reverence, *and* respect" (p. 103). Curriculum so conceived is a space where science, story, and spirit interact toward teachers and students living, learning, and creating knowledge together.

References

Akerlind, G. (2008). A phenomenographic approach to developing academics' understanding of the nature of teaching and learning. *Teaching and Learning in Higher Education, 13*(6), 633–644.

Aoki, T. (2003). Postscript c. In W. F. Pinar & R. L. Irwin (Eds.), *Curriculum in a new key: The collected works of Ted T. Aoki* (pp. 453–457). Mahwah, NJ: Lawrence Erlbaum Associates.

Au, W. (2011). Teaching under the new taylorism: Standardization of the 21st century curriculum. *Journal of Curriculum Studies, 43*(1), 25–45.

Bellack, A. A. (1969). History of curriculum thought and practice. *Review of Educational Research, 39*(3), 283–292.

Berger, P. L., & Luekmann, T. (1967). *The social construction of reality: A treatise in the sociology of knowledge*. Garden City, NJ: Anchor.

Bradbeer, J. (2004). Undergraduate geographers' understandings of geography learning and teaching: A phenomenographic study. *Journal of Geography in Higher Education, 28*(1), 17–34.

Caswell, H. L. (1966). *Emergence of the curriculum as a field of professional work and study: Precedents and promises in the curriculum field*. New York: Teachers College Press.

Cornbleth, C. (2008). Climates of opinion and curriculum practices. *Journal of Curriculum Studies, 40*(2), 143–168.

Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed approaches* (4th ed.). Los Angeles, CA: Sage.

Cunningham, T., Gannon, J., Kavanagh, M., Greene, J., Reddy, L., & Whitson, L. (2007). *Theories of learning and curriculum design key positionalities and their relationships.* Dublin Institute of Technology [Online]. Available at http://level3.dit.ie/html/issue5/tony_cunningham/cunningham.pdf.

Davis, B., & Sumara, D. J. (2000). Curriculum forms: On assumed shapes of knowing and knowledge. *Journal of Curriculum Studies, 32*(6), 821–845.

Dillon, J. T. (2009). The questions of curriculum. *Journal of Curriculum Studies, 41*(3), 343–359.

Doll, W. E. (1972). A methodology of experience. In D. Trueit (Ed.). (2012), *Pragmatism, post-modernism, and complexity theory: The "fascinating imaginative realm" of William E. Doll, Jr.* (pp. 49–65). New York: Taylor and Francis.

Doll, W. E. (1993). *A post-modern perspective on curriculum.* New York: Teachers College Press.

Doll, W. E. (2002). Beyond methods. In D. Trueit (Ed.). (2012), *Pragmatism, post-modernism, and complexity theory: The "fascinating imaginative realm" of William E. Doll, Jr.* (pp. 81–97). New York: Taylor and Francis.

Doll, W. E. (2003). Modes of thought. In D. Trueit (Ed.). (2012), *Pragmatism, post-modernism, and complexity theory: The "fascinating imaginative realm" of William E. Doll, Jr.* (pp. 103–110). New York: Taylor and Francis.

Doll, W. E. (2005). Keeping knowledge alive. In D. Trueit (Ed.). (2012), *Pragmatism, post-modernism, and complexity theory: The "fascinating imaginative realm" of William E. Doll, Jr.* (pp. 111–119). New York: Taylor and Francis.

Ebenezer, J. V., & Fraser, D. (2001). First year chemical engineering students' conceptions of energy in solution process: Phenomenographic categories for common knowledge construction. *Science Education, 85,* 509–535.

Hlebowitsh, P. (2005). Generational ideas in curriculum: A historical triangulation. *Curriculum Inquiry, 35*(1), 73–87.

Hurren, W. (2003). Auto'-geo'-carto'-graphia' (a curricular collage). In W. Hurren & E. Hasebe-Ludt (Eds.), *Curriculum inter-text: Place/language/pedagogy* (pp. 111–121). New York: Peter Lang.

Kliebard, H. (1968). The curriculum field in retrospect. In P. W. F. Witt (Ed.), *Technology and the curriculum* (pp. 68–84). New York: Teachers College Press.

Krull, E. (2003). Hilda Taba (1902–1967). *Prospects, 33*(4), 481–491.

Latta, M., & Kim, J. (2011). Investing in the curricular lives of educators: Narrative inquiry as pedagogical medium. *Journal of Curriculum Studies, 43*(5), 679–695.

Lin, A. M. Y. (2012). Towards transformation of knowledge and subjectivity in curriculum inquiry: Insights from Chen Kuan-Hsing's "Asia as method". *Curriculum Inquiry, 42*(1), 153–178.

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Beverly Hills, CA: Sage.

Macdonald, J. B. (1971). Curriculum theory. *Journal of Educational Research, 64*(5), 196–200.

Marton, F., & Booth, S. (1997). *Learning and awareness*. Mahwah, NJ: Lawrence Erlbaum Associates.

Marton, F., & Tsui, A. (2004). *Classroom discourse and the space of learning*. Hillsdale, NJ: Lawrence Erlbaum.

Mason, M. (2008). Complexity theory and the philosophy of education. *Educational Philosophy and Theory, 40*(1), 4–18.

Norman, R. (2003). Whispers among places: Teaching and writing in-between past, present and future. In W. Hurren & E. Hasebe-Ludt (Eds.), *Curriculum inter-text: Place/language/pedagogy* (pp. 243–258). New York: Peter Lang.

Patary-Ching, J., & Roberson, M. (2002). Misconceptions about a curriculum-as-inquiry Framework. *Language Arts, 79*(6), 498–505.

Petrina, S. (2004). The politics of curriculum and instruction design/theory/form: Critical problems, projects, units, and modules. *Interchange, 35*(1), 81–126.

Pinar, W. F. (1977). *The re-conceptualization of curriculum studies*. A paper presented to the annual meeting of the American Educational Research Association. New York City.

Pinar, W. F. (Ed.). (2014). *International handbook of curriculum research* (2nd ed.). New York: Routledge.

Pinar, W. F., & Grumet, M. R. (1976). *Toward a poor curriculum*. Dubuque, IA: Kendall Hunt.

Pinar, W. F., Reynolds, W., Slattery, P., & Taubman, P. (1995). *Understanding curriculum: An introduction*. New York: Peter Lang.

Rasmussen, H. (2012). Wrestling with data. *Instructional Leadership, 33*(5), 46–49.

Ropo, E., & Autio, T. (2009). *International conversations on curriculum studies: Subject, society, and curriculum*. Rotterdam, the Netherlands: Sense Publishing.

Schecter, B. (2011). "Development as an aim for education": A reconsideration of Dewey's vision. *Curriculum Inquiry, 41*(2), 250–266.

Schwab, J. (1983). The practical 4: Something for curriculum professors to do. *Curriculum Inquiry, 13*(3), 239–265.

Schwab, J. J. (2013). The practical: A language of the curriculum. *Journal of Curriculum Studies, 45*(5), 591–621. Retrieved from http://dx.doi.org/10.1080/00220272.2013.809152.

Sears, J. T., & Marshall, D. (2000). Generational influences on contemporary curriculum thought. *Journal of Curriculum Studies, 32*(2), 199–214.

Sohoni, D., & Petrovic, M. (2010). Teaching a global sociology: Suggestions for globalizing the U.S. curriculum. *Teaching Sociology, 38*(4), 287–300.

Trueit, D. (Ed.). (2012). *Pragmatism, post-modernism, and complexity theory: The "fascinating imaginative realm" of William E. Doll, Jr*. New York: Taylor and Francis.

Tyler, R. (1950). *Basic principles of curriculum and instruction*. Chicago: University of Chicago Press.

Weenie, A. (2008). Curricular theorizing from the periphery. *Curriculum Inquiry, 38*(5), 545–557.

Wertsch, J. V. (1985). *Vygotsky and the social formation of mind*. Cambridge, MA: Harvard University Press.

Westbury, I. (2005). Reconsidering Schwab's "practicals": A response to Peter Hlebowitsh's "generational ideas in curriculum: A historical triangulation". *Curriculum Inquiry, 35*(1), 89–101.

Whitehead, A. N. (1967). *The aims of education and other essays*. New York: The Free Press (Original publication, 1929).

Wood, L., Ebenezer, J., & Boone, R. (2013). Effects of an intellectually caring model on urban African American alternative high school students' conceptual change and achievement. *Chemistry Education Research and Practice*. https://doi.org/10.1039/c3rp00021d.

Wraga, W., & Hlebowitsh, P. (2013). Toward a renaissance in curriculum theory and development in the USA. *Journal of Curriculum Studies, 35*(4), 425–437.