Reflection and Learning: Characteristics, obstacles, and implications

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Abstract

Reflection represents an important form of human thought; from ancient to modern times, the human capacity for reflective thinking has held the imagination of various philosophers and educational theorists. Despite this interest, researchers define reflection in different ways. One of the purposes of this article is to explore the activity of reflection by examining characteristics and contextual factors associated with it. For this purpose, various philosophical and theoretical sources are considered including Socrates, Rousseau, and Bruner, among others. Following this, empirical research is examined to determine whether elements associated with reflection are consistently integrated within regular classroom instruction. Next, practical and theoretical obstacles to reflection are proposed. One of these obstacles is an over-emphasis on the technical interest, a concept described by Jürgen Habermas. Last, some implications are suggested with regard to the use of reflection as a construct for infusing new points of discussion in teacher education and practice.

Keywords: reflection, metacognition, formative assessment, depth, Socrates, Habermas

In the poem The Dry Salvages, T.S. Eliot (1943) wrote, ‘We had the experience but missed the meaning’. This line serves as a reminder that the connection between experience and meaning is sometimes tenuous or altogether absent. Arguably, one function of teaching is to promote connections between what students experience and the meaning that they derive from those experiences. One way for promoting or reinforcing this connection is reflection (Dewey, 1997). Reflection represents the human capacity for higher-order thinking, specifically, our ability to make connections between thoughts and ideas. However, one difficulty with the idea of reflection is that researchers and theorists define it differently (Grossman, 2009; Kompf & Bond, 1995; Rodgers, 2002). Nevertheless, these differences have not diminished the interest that educators have taken in the topic. For instance, searching the Education Resources Information Center database using the keyword reflection produces more than 8,000 results. Additionally, professional organizations such as the National Board for Professional
Teaching Standards (1987), the National Council for the Social Studies (2009), and the National Foundation for the Improvement of Education (1996) suggest that reflection is a valuable activity for teachers and students alike.

Despite its evident popularity, research indicates that increasing learners’ capacity for reflection is difficult, but possible (King & Kitchener, 2004; Kompf & Bond, 1995; Spalding & Wilson, 2002). The purpose of this article is to examine the concept of reflection by discussing some of its characteristics and factors that promote its application in educational settings. This discussion involves multiple theoretical sources, including Socrates (Plato 2006a, 2006b), Rousseau (2004), and Dewey (1997, 2004), among others. Next, this article proposes that an over-emphasis on the technical interest, a construct situated within Jürgen Habermas’s (1971) doctrine of interest, is a primary obstacle to engaging students in reflection. Moreover, throughout this article, an attempt has been made at connecting reflection to relevant topics such as preservice teacher education and educational practices overall. Last, the various arguments proposed in the first two sections are summarized by examining some implications regarding reflection as a point of departure for organizing new discussions about teacher education and practice.

Characteristics of Reflection

One of the difficulties encountered when discussing reflection is that there is no widely agreed upon definition (Grossman, 2009; Kompf & Bond, 1995; Rodgers, 2002). Rodgers suggests that this is especially problematic for educators that integrate reflection as an instructional practice with preservice teachers. Rodgers goes on to state two reasons for this difficulty; first, there is no common language for discussing reflection, and second, there is no standardized method for observing its occurrence. Nevertheless, descriptions from ancient texts may offer some general guidance about the characteristics and factors that comprise and promote reflection. For example, in the Old Testament, the psalmist reports meditating on the law of the Lord by talking to himself day and night (Psalm 1:2, The New King James Bible). Elsewhere, in one of his fables, the Greek sage Aesop tells of an old woman who, chancing upon an empty wine bottle, recollects the once fragrant contents of the remaining dregs (Aesop, 1992). In the Tao Teh Ching, the wise master Lao Tzu reminds the disciple that in order to cultivate the mind, one must ‘know how to dive in the hidden deeps’ (1989, p. 17). Yet again, in the Bhagavad Gita (2:41), the hero Arjuna is advised to contemplate one action at a time in order to avoid straying onto irresolute paths and innumerable distractions. According to these sources, reflection could include activities such as meditation, recollection, and contemplation.

Gustafson and Bennett (2002) simply define reflection as thinking for an extended period of time about recent experiences, ‘looking for commonalities, differences, and interrelations beyond their superficial elements’ (p. 1). The key characteristic to note here is the idea of spending extended time on one learning event and doing so in a way that produces a thorough exploration. On the other hand, John Dewey defines reflection as ‘active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it, and the further conclusions to which it tends’
Dewey went on to state that reflection involves a conscious and voluntary effort to establish belief upon a ‘firm basis of reasons’ (p. 6). What should be noted from Dewey’s definition is the idea of reflection as active, for instance, engaging learners with educational practices that cause them to establish their own set of beliefs by way of reason and proof. Finally, the Enlightenment philosopher John Locke defines reflection as, ‘that notice which the mind takes of its own operations’ (1974, p. 90). In Locke’s definition, the important characteristic is thinking about one’s own thinking or metacognition.

These three definitions seem to suggest that reflection consists of characteristics as well as factors. That is, characteristics are defined as cognitive qualities that promote certain kinds of mental activity, for instance, prolonged consideration of one topic. Alternatively, factors are defined as those instructional methods or variables in the environment that promote reflection from the outside, for instance, use of reflective journals. In this article, these two constructs are discussed together because the definitions under consideration do not seem to indicate that they are entirely separate. Moreover, a theme throughout this discussion is that reflection consists of various elements that are linked together. Other sources support this assertion (Brown, 1997; Grossman, 2009; Kompf & Bond, 1995; Rodgers, 2002).

Two characteristics, or factors depending on one’s perspective, emerge from the definition by Gustafson and Bennett (2002); these are time and thorough exploration. Simply put, reflection involves spending significant time on one topic in order to explore it thoroughly. One way to replicate these characteristics is by teaching through the application of a broad range of instructional methods. For instance, in the course of instructing on some topic, educators might include methods that represent reading, conversing, illustrating, and modeling. In addition to this, the characteristic of conducting a thorough exploration suggests depth. Depth is a frequent topic of discussion with regard to student achievement (Goodlad, 1984; Porter et al., 1993; Roach, Niebling, & Kurz, 2008) and it refers to one’s sophistication of understanding and ability to apply knowledge to new problems and environments. In summary, the definition by Gustafson and Bennett suggests that reflection requires spending significant time on one topic in order to explore it thoroughly. However, in terms of educational settings, this practically translates to the application of a broad range of instructional approaches and promoting depth of understanding.

Another characteristic, one suggested by Locke (1974), is metacognition. This is especially evident with respect to Locke’s statement regarding reflection as the mind observing its own procedures. Metacognition is concerned with how learners think about their own thinking and account for their own mental processes (Bruner, 1996a; Flavell, 1979). Instances of metacognitive thinking include learner awareness regarding the variables of a cognitive enterprise, such as personal strengths and weaknesses, attributes of a given task, and strategy use (Flavell, 1979). Moreover, metacognitive thinking means being aware of one’s own progress toward meeting a learning goal or completing the requirements for a learning activity (Flavell, 1979). Grossman (2009) suggests that metacognitive reflection is one way to conceive of the reflective process in terms of educating preservice teachers, while Brown (1997) recommends infusing metacognitive thinking as a regular part of the grade school experience.
One final characteristic, or factor, suggested by Dewey (1997), is the idea that reflection has to be about something. This may seem like a rather obvious proposition; however, Dewey outlines requirements for the content of reflection. In Dewey’s words, reflection depends upon the formation of a firm basis of reasons from which one’s thoughts develop and connect. If reflection depends upon some basis of reasons then the question arises: What is the basis? One could argue that it has multiple sources, for instance, textbook readings, teacher talk, and videos. However, Dewey states that reflective thinking is active, persistent, and contemplative. As such, the basis for a student’s beliefs is more likely to consist of active and not passive qualities, such as classroom interaction.

One way to conceptualize such interactions is through formative assessment, which researchers generally define as an interactional process between student and teacher for informally determining the content of student thinking and progress toward achieving learning goals (Bell & Cowie, 2001). Indeed, researchers have connected methods of feedback, such as formative assessment, and reflection before (McAlpine et al., 1999; Ruiz-Primo et al., 2004; Spalding & Wilson, 2002). More to the point, feedback is an essential factor of reflection because it appears to facilitate and promote meaningful correspondence between students and their teachers (Pavlovich, 2007; Werderich, 2006).

Arguably, there are additional characteristics of reflection not included in this discussion. For example, Kegan (1994) and Mezirow (1997) attach transformative and self-authorship qualities to processes of reflection. However, the purpose of limiting the discussion to the few characteristics outlined so far is to accomplish what Jerome Bruner (1996a) calls the outside-in requirements of educational theories. By outside-in, Bruner means that educationally relevant theories require careful specification of the cognitive resources needed for their use and a description of their setting requirements. Without these, questions of the what and where of educational theories and their implications go unattended. With this goal in mind, the characteristics and factors of reflection proposed in this article are limited to these: (a) applying a broad range of instructional practices, (b) promoting depth of understanding, (c) integrating metacognition, and (c) utilizing formative assessment.

Theoretical Basis of Reflective Thinking

Although these elements may appear unrelated, there is some historical precedent for associating them together. For example, in Meno (Plato, 2006a) and Theaetetus (Plato, 2006b), Socrates not only appears to employ methods indicative of these, but he also describes them as principles of philosophical thinking. For example, in Theaetetus (Plato, 2006b), Socrates suggests that philosophy requires time, stating that, ‘[philosophers] talk at their leisure in peace ... and they do not care at all whether their talk is long or short’ (Plato, 2006b, pp. 115–117). Similarly, Socrates proposes that the work of the philosopher’s mind is to focus its attention toward questioning, interviewing, and cross-examining the whole nature of things seen and unseen in order to explore various phenomena (Plato, 2006b). One explanation for Socrates’ emphasis on taking time to explore ideas has to do with the view that learning is recollection.
Socrates suggested that all learning was a form of recollection; the exact word for this is anamnesis (αναμνησις), which literally means calling to mind (Liddell & Scott, 1996; Plato, 2006a). By recollection, Socrates was referring to the belief that ideas existed in the mind of the knower, preloaded as it were, and that learning was the re-collection of unconscious knowledge through mental activity.

One of the strategies used most often by Socrates to promote mental activity was dialogue. However, a careful examination of Meno (Plato, 2006a) suggests that Socrates employed a wide range of methods such as summary, comparison, and illustration (in Meno, Plato tells us that Socrates drew in the sand as a way to show geometric figures). Additional passages suggest that Socrates integrated metacognitive thinking as well. For instance, Socrates recommends examining one’s thoughts and identifying gaps in one’s arguments (Plato, 2006a).

The components of formative assessment, such as evaluation and feedback, are also present in Socrates’ method. For instance, Socrates suggests that teaching is not didacticism (διδασκοντα), but a process of joint inquiry; Plato (2006a, p. 314) uses a phrase (ζητον μετ ειμου), which literally means seeking with another person. Often, Socrates begins this process of joint inquiry with questioning, followed by an evaluation to assess the validity of arguments. In addition, throughout this process Socrates integrates summaries and examples, which he then uses as launching points for further inquiry (Plato, 2006a). In this way, Socrates interacts through dialogue, checking for understanding in order to stir up ideas and memories.

The characteristics and factors present in Socrates’ method, used more than 2,000 years ago, continue to receive attention from modern thinkers. For example, Alfred North Whitehead (1929) proposes two principles of effective teaching: teach less content and teach for understanding. Whitehead follows these basic principles with the suggestion that teachers introduce a few main ideas over time, putting them together into different combinations to assist students in achieving fluent understanding. Likewise, Rousseau (2004) recommends a similar approach. For instance, Rousseau states, ‘we always advance slowly from one sensible idea to another, and as we give time enough to each for ... [the student] to become really familiar with it before we go on to another’ (p. 158). Socrates, Whitehead, and Rousseau seem to have the same idea in mind, which is to contemplate one idea or topic at a time, explore it thoroughly, and learn it well.

A number of professional organizations reiterate these principles. For instance, according to the American Association for the Advancement of Science (AAAS, 1990), educators should concentrate on fewer topics worthy of long-term investigation. The purpose of this, according to the AAAS, is to provide learners with richer insights and deeper understandings about scientific principles. The National Council of Teachers of Mathematics (2009) makes a similar suggestion, citing that an underlying principle of effective mathematics curriculum is to build connections and skills over time in order to deepen and expand students’ mathematics knowledge. Likewise, the National Council for the Social Studies (2009) suggests that effective social studies teachers assist their students in understanding a few key concepts and themes developed over time and with depth.

In the classic educational text, The Process of Education, Jerome Bruner (1996b) recommends a similar approach. Bruner suggests that students learn the underlying
structures of a discipline by understanding its generalized principles. Bruner defines generalized principles as those rules and precepts that govern a particular body of knowledge and their related phenomena. For example, the commutative property of Algebra is one of these generalized principles. At one level, the commutative property is quite easy to understand; it simply means that numbers are movable in situations of addition and multiplication. However, when numbers are replaced with variables, the commutative property acquires a new level of sophistication. Accordingly, if mathematics students learn the basic rules that govern the commutative property first, then this understanding can be cultivated over time into flexible and transferable knowledge throughout grade school and beyond. These are the building blocks of Bruner’s theory of the spiral curriculum and the idea of transferable knowledge plays an important role in this theory.

Bruner (1996b) defines transference as the ability to apply an understanding or skill to a new problem or within a new environment. Moreover, transference is not limited to content-specific knowledge. Rather, Bruner suggests that educators promote generalized principles of the learning process itself. One of these principles is learning how to learn, otherwise known as metacognition.

Although Flavell (1976) coined the term metacognition, philosophers and theorists have discussed its characteristics for thousands of years. For instance, the Greek travel author Pausanias (Book 10:24:1) wrote that each visitor to Apollo’s temple at Delphi was greeted with a sign posted at the entrance, admonishing visitors to ‘know thyself’. Likewise, the ancient Greek poet Sophocles’ authored *Oedipus the King* with the process of achieving self-knowledge as its major theme.

The discussion of these ideas continues today in education. For instance, Bruner (1986) observes that ‘much of the process of education consists of being able to distance oneself in some way from what one knows by being able to reflect on one’s own knowledge’ (p. 127). Similarly, Dewey (2004) suggests that reflection is an intentional examination of the details that connect one’s actions to the results that they bring about. Alternatively, thinking which lacks characteristics of metacognition is similar to trial and error. For example, the unreflective thinker tries different solutions to a problem without attempting to understand why one method works and another fails (Dewey, 2004). Thinking without some element of metacognition is random and discontinuous; it does not lead to meaningful or thoughtful activity (Dewey, 2004). This is why Dewey (1997) and Bruner associate reflection and metacognition together with active learning. The focus of control shifts more toward learners as they begin examining their own thinking. As a result, thinking becomes more strategic and focused. Learners begin to operate as users of knowledge rather than passive receivers of it (Bruner, 1986).

With regard to passive learning, Rousseau (2004) recommends that teachers guide students in the formation of knowledge, not simply its transmission. Rousseau put the matter of teaching this way: instead of memorizing exact knowledge of, say, local topography, have the learner understand the art of map making. Such knowledge would serve the student better than exact knowledge, according to Rousseau, because it represents the ability to access knowledge in a variety of circumstances and at just the right time. Whitehead (1929) phrases the process somewhat differently, suggesting that the learner’s ‘knowledge shrinks as wisdom grows’ and that the details of what one learns ‘are
swallowed up in principles’ (p. 48). The recommendations of Rousseau and Whitehead point back to Bruner’s (1996b) interest in teaching general principles of a discipline. Arguably, metacognitive thinking represents one of these principles. However, metacognition is distinguished from other principles because it is not tied to any particular discipline or content. That is, learners can use it in any type of educational setting.

One of the reasons for its transferability is that metacognition distances the learner from his or her thoughts, while also requiring an assessment of one’s abilities and resources for the completion of a learning endeavor. However, self-assessment, whether as a goal in teacher education or adolescent learning is difficult to achieve (Brown, 1997; Grossman, 2009; King & Kitchener, 2004). One explanation for this is that metacognitive thinking is not altogether an independent activity; it depends on elements of interaction (Bruner, 1996a).

An example of the intersection between interaction and metacognition comes from Lev Vygotsky’s (1978) illustration of a young child attempting to grasp some object just out of reach. According to Vygotsky, the child points as a gesture to make persons nearby react. To some degree, the child is metacognitively aware of his or her inability to reach the object, but through the act of gesturing, the child summons additional resources to solve the problem at hand. In this way, metacognitive thinking and social interaction go together. Bruner (1986) supports this assertion when he states that learning in most settings is a ‘communal’ activity (p. 127). In other words, learning involves interaction and this interaction has the potential to assist learners in taking a metacognitive-step, as it were, away from the objective at hand to evaluate their progress (Bruner, 1986, 1996b). When teachers encounter large class loads or apply primarily didactic teaching methods, the interactional and communal aspects of learning weaken and so does the potential for prompting metacognition. Perhaps it is these types of factors that interfere with the promotion of reflection among adolescent learners as well as with preservice teachers (Gustafson & Bennett, 2002; Nielsen, Stragnell & Jester, 2007; Song et al., 2006; Spalding & Wilson, 2002).

One way to reintegrate interaction in the context of modern educational environments is through formative assessment. The basis for this assertion is partly practical: in classroom environments, formative assessment represents an effective instructional strategy (Black & Wiliam, 1998; Fuchs & Fuchs, 1986). However, the theoretical basis for this suggestion derives from Dewey’s (1997) idea that reflection uses a certain kind of raw material, described as ‘the firm basis of reasons’ for the cognitions that a student possesses (p. 6). Possibly, this firm basis of reasons is constructed from the social interactions that a student experiences.

Socrates’ method seems to demonstrate this possibility; after all, Socrates’ primary method of teaching (although Socrates would not call it teaching) is questioning and discussion. Similarly, Vygotsky (1978) imagined that learning depends on social interaction, primarily of a linguistic nature. Vygotsky identifies this process as the zone of proximal development, which is defined as the distance between what a learner can do independently and what a learner can do with the assistance of competent peers or adults. Rousseau (2004) also suggests that interaction has an important role to play in learning. Indeed, Rousseau has the same idea in mind as Vygotsky when he recommends that teachers ‘increase the difficulty of the task in proportion to [the student’s] skill’
Educators could use any number of formats to promote meaningful classroom interaction, such as cooperative learning (Johnson & Johnson, 1994) and peer-questioning (King, 2002). However, formative assessment has two qualities that seem to set it apart. First, it involves a learner and a competent peer or adult who guides the learner beyond their present capabilities. Second, it creates the potential for meaningful feedback and researchers have shown that feedback is a variable that promotes reflection (Ruiz-Primo et al., 2004; Spalding & Wilson, 2002).

Reflection and Educational Practice

In this article, it has been suggested that reflection is composed of various elements; however, other sources make similar claims (Grossman, 2009; Kompf & Bond, 1995; Rodgers, 2002). Nevertheless, an effort has also been made at deriving characteristics and factors of reflection from philosophical and theoretical sources such as Socrates (Plato, 2006a, 2006b), Dewey (1997), and Rousseau (2004), among others. Although these elements are not intended to be comprehensive, they are consistent with the definitions of reflection established by Gustafson and Bennett (2002), Dewey (1997), and Locke (1974). As mentioned, these components include (a) applying a broad range of instructional practices, (b) promoting depth of understanding, (c) integrating metacognition, and (c) utilizing formative assessment.

Despite the theoretical basis for these elements in the writings of various philosophers and educational theorists, the question remains as to whether or not these characteristics and factors describe educational practice in American schools. Evidence suggests that these are not common principles upon which instructional methods depend (Faulkner and Cook, 2006; Jackson, 1990; Leming, Ellington & Schug, 2006; Porter et al., 1993). The seminal study by Goodlad (1984) is one source that supports this assertion.

Goodlad (1984) collected data and observations from 38 schools, 1,000 classrooms and 17,000 students. Interestingly, Goodlad’s study ranks as one of the largest and most comprehensive studies ever conducted in American schools. According to Goodlad, students in primary and secondary classrooms had the tendency to cover too much content, rarely taking time to sort out the most important principles from the minuteness of specifics. Additionally, Goodlad reported that students at primary and secondary levels often did not have enough time to complete their lessons or were confused about what the teacher wanted them to do. Finally, Goodlad found that students frequently engaged in a narrow range of classroom activities that were mostly expositive in nature. For instance, students spent most of their time listening to teachers, writing answers to questions, and taking quizzes and tests.

In another seminal study, Jackson (1990) observed primary school classrooms and described findings similar to those of Goodlad’s (1984). Jackson found that teachers moved students from one activity to the next based on a time schedule, not because students were finished with their work. For example, math begins at 10:00 and ends at 10:42; this is followed by spelling at 10:47, and so on. As a result, Jackson stated that students often left lessons incomplete. Another finding was that the instructional methods teachers chose were influenced not by their perceived effectiveness for learning, but by their ability to facilitate crowd control. Indeed, Jackson suggested that crowd
control was a governing theme in primary classrooms. As an example, Jackson writes that, ‘teaching commonly involves talking and the teacher acts as a gatekeeper who manages the flow of the classroom dialogue’ (p. 11).

Despite their insights, the studies by Goodlad (1984) and Jackson (1990) are 20 years old. One could argue that these findings are outdated and maybe educational practices, as a whole, have changed. However, there is further evidence to suggest that the classrooms Goodlad and Jackson described 20 years ago are much the same today. For instance, Porter et al. (1993) examined 18 different schools, made 116 classroom observations, and interviewed 44 district administrators with regard to secondary mathematics and science education. According to Porter et al., science and mathematics students rarely engaged in developing deep conceptual understanding of content material. That is, they did not understand the underlying principles or structure of science and mathematics but attended more to the superficial details of each discipline. In addition, like the findings reported by Goodlad, Porter et al. found that students engaged in the repetitive use of a finite number of instructional practices, which were primarily expositive in nature.

More recently, Leming et al. (2006) surveyed 1,051 elementary and secondary social studies teachers and found that teachers rated student-centered instruction as their preferred style. Nevertheless, when asked about their use of instructional methods, 90% of teachers indicated that they used teacher presentation and discussion most often. Similarly, Bolinger and Warren, (2007) surveyed 140 primary and secondary social studies teachers and found that lecture was the most used method of instruction at all levels, especially in the secondary grades. Other frequently employed practices included text readings and worksheets.

Finally, Faulkner and Cook (2006) surveyed 146 middle school teachers with regard to their use of instructional approaches. Similar to the results found by Leming et al. (2006), teachers acknowledged the importance of using a wide variety of instructional strategies (Faulkner & Cook). However, when asked, most teachers stated that the instructional strategies they used most often were discussion, lecture, and worksheets. The least used strategies, according to Faulkner and Cook, were hands-on experimentation, reflective writing, inquiry, and integrated units.

The research cited in this section is by no means exhaustive; nevertheless, it does seem to suggest that teachers have the tendency to emphasize content coverage while employing didactic and expositive methods. Perhaps teachers feel pressure to cover content as a way to demonstrate progress; this would partly explain the consistent use of direct teaching practices. Although this conclusion is only speculative, there is some evidence for its validity. For example, Goodlad (1984) summarizes one of the central problems of secondary education by stating: ‘At no academic level is the need one of cramming more into the curriculum and into each lesson. Indeed, a sorting out of principles from the clutter of specifics would be beneficial. A few concepts should be learned through a variety of approaches’ (p. 128). Goodlad’s observation brings to mind the advice of Whitehead (1929) and Rousseau (2004): teach less content, teach for understanding. However, it appears as though this advice has gone unheeded.

Moreover, the pressures exerted by the perceived need for content coverage and the use of direct teaching methods may explain some of the difficulty that older students
and preservice teachers have in generating meaningful reflections (Gustafson & Bennett, 2002; Pavlovich, 2007; Spalding & Wilson, 2002). Possibly, after multiple years in an educational system that emphasizes content coverage and passive learning, students have neither practiced nor cultivated their capacity for reflection. Arguably, reflective capacity is a function of developmental level (King & Kitchener, 2004); however, this does not exclude the possibility that educators can assist their students in reflecting in age appropriate ways (Brown, 1997; Choi, Land & Turgeon, 2005; Ruiz-Primo et al., 2004; Song et al., 2006). Indeed, Brown (1997) argues that educational researchers should be doing more to understand and develop students’ capacity for reflection in age-appropriate ways.

Obstacles to Reflection

The question, then, is why this occurs. Why do educators in primary and secondary levels of education seem to emphasize content coverage and direct instruction methods? Possibly, these are the best methods for coping with large crowds, as Jackson (1990) asserts. In other words, content coverage and direct teaching methods make learning environments more manageable. This systematization and organization of learning environments is demonstrative of the institutional qualities of education. Indeed, these qualities are discussed by both Goodlad (1984) and Jackson. In comparison, the elements necessary for reflection seem out of place. For example, if a teacher were to give meaningful feedback through formative assessment processes to students on individual reflections, this would consist of additional hours of work each day. Then again, individual student reflections would also demonstrate a good deal of diversity. How would teachers score such an assignment in an efficient manner, especially when every student is expressing a different line of thinking? Maybe this is one reason why direct teaching methods are frequently used: they standardize student output. Arguably, practical concerns serve as one category of obstacles to reflection. However, they do not necessarily tell us much about underlying causes.

One way to discuss obstacles of reflection at a theoretical level is through Jürgen Habermas’s (1971) doctrine of interest. The doctrine of interest is a theory in which Habermas suggests that humans construct knowledge according to three fundamental interests. In these terms, interest means a fundamental orientation of human thinking by which humans develop means and methods for promoting life. These interests are practical, technical, and emancipatory. Although Habermas originally intended the doctrine of interest as a critique of the dominance of positivism in Western thought life, educational theorists have used Habermas’s doctrine as a way to organize discussions about curriculum, instruction, and other topics relating to education (Grundy, 1987; Ellis, 2005).

The technical interest represents the fundamental human desire to control the environment through principles of positivism (Habermas, 1971). Because of its positivistic nature, the technical interest requires careful definitions, set criteria, and verification (Habermas). Moreover, the overall purpose of these methods is to produce predictable outcomes. An accompanying dynamic associated with predicting outcomes is the careful monitoring of input and output mechanisms (Habermas, 1971, 1973).
mechanical description, Habermas does not suggest that the technical interest is negative. The problem, however, is when humans use the technical interest as their primary orientation for the constitution of knowledge. An overemphasis of the technical interest is particularly problematic in terms of educational practice (Ellis, 2005) because methods indicative of the technical interest limit or exclude certain types of human behavior such as discussion, consensus building, and reflection (Grundy, 1987).

Alternatively, the practical interest represents the fundamental human desire to understand the surrounding environment through social interaction (Grundy, 1987). Characteristics of the practical interest include communication, mutual understanding, and argumentation (Habermas, 1971). One of the purposes of the practical interest is to achieve consensus among participants (Habermas). As such, the relationship between humans and the practical interest is one of working within the environment, unlike the technical interest, which seeks to shape the environment. In terms of education, the practical interest is demonstrated when learners participate in various forms of interaction, such as discussion and collaboration (Grundy).

The last interest, emancipatory, describes the fundamental human desire for autonomy and responsibility, primarily achieved through self-reflection. Unlike the other two interests, the emancipatory interest is less an inclination than an orientation grounded in rationality, or at least, the potential for humans to think and act rationally (Grundy, 1987). However, as the name suggests, the emancipatory interest frees humans from something. This something is the tendency of the technical interest to objectify other humans and their activities. The primary process by which humans experience emancipation is self-reflection. This is because self-reflective individuals consider the meaning and consequences of their actions. Additionally, self-reflection refocuses responsibility back toward the individual and away from the authority of external experts (Habermas, 1971). The proposition that one can be self-reflective points back to the idea of metacognition and the theoretical sources that surround it, such as Socrates’ suggestion to examine one’s thoughts, or more directly, the Greek aphorism to ‘know thyself’, as well as Locke’s (1974) definition of reflection as the mind examining its own operations.

When one interest dominates an environment, human activity in all its forms, becomes unbalanced (Habermas, 1971). The implications for educational practice where the technical interest dominates are many. For instance, instructional methods tend to focus on controlling the learning environment through careful monitoring of input and output processes (Grundy, 1987). Moreover, an orientation toward the technical interest focuses on making student learning more efficient and objective. One particular example of this is the learning objective, popularized by Franklin Bobbitt (2004) in 1918. Bobbitt proposed to define and quantify every skill, behavior, and cognition of which humans were capable in order to assemble a comprehensive list of what students should know and be able to do. Similarly, in 1962, Robert Mager (1984) followed Bobbitt’s lead by detailing methods for preparing instructional objectives. Perhaps the standards and testing movement observed in American schools today is yet another manifestation of these activities.

This is not to suggest that learning objectives or standards are obstacles to reflection in and of themselves. Arguably, there must be some systems for organizing educational
practice (Tyler, 2004). However, when the technical interest dominates, then it is reasonable to say that essential dimensions of human learning remain uncultivated, specifically, the characteristics and factors associated with reflection. Arguably, engaging students in the emancipatory interest requires more effort, resources, and time. Perhaps this is why researchers state that keeping a reflective journal is more problematic, at least in the context of educational environments, with regard to grading, feedback, and administration (Pavlovich, 2007; Spalding & Wilson, 2002; Surbeck, Han, & Moyer, 1991). Reflection simply requires additional resources and effort. More importantly, engaging students in reflection may require that educators examine their beliefs about knowledge and the ways in which students acquire it, arguably a difficult undertaking in its own right.

Implications for Educational Practice

However, one way to begin such an examination is through theoretical sources, like those presented in this discussion. For instance, teacher educators could use Habermas’s (1971) doctrine of interest as an alternative or supplementary rationale for reflective practice, beyond those presented by Schön (1987) and Brookfield (1995). In addition, perhaps teachers working in the field would benefit by classifying their own practice as technical, practical, and emancipatory in order to determine whether they address each category in reasonable proportions over the course of conducting a lesson or unit.

Another implication relates to teachers’ beliefs about the relationship between reflection and students’ ability to develop reflective thinking. There is some evidence to suggest that learners can improve their reflective thinking in post-secondary environments as well as grade school (Brown, 1997; Choi, Land, & Turgeon, 2005; King & Kitchener, 2004, Song et al., 2006). At the same time, it should be acknowledged that developmental level and contextual support play a role in this process (King & Kitchener, 2004; Song et al., 2006, Spalding & Wilson, 2002). Moreover, questions remain about the steps that are necessary for teaching students about reflection and its related constructs (Brown, 1997; King & Kitchener, 2004; Zimmerman, 2002). Possibly, the theoretical backdrop for beginning a discussion of such questions could come from sources cited here, such as Socrates, Bruner, and others.

Finally, there are implications that relate to the discussions that educators are having about educational practice overall. Arguably, conversations relating to the standards movement have occupied a large portion of this discussion (Parkison, 2009; Ravitch & Chubb, 2009). Perhaps, further investigations relating to reflection will assist in realigning the content of these conversations toward significant ideas about teaching and learning. Arguably, the construct of reflection has the potential to assist in this process because it represents the human capacity for higher-level thinking and our ability to assign meaning to our experiences.

References


