

## **Pedagogical Relevance of Reflective Thinking in Teaching and Learning**

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### **ABSTRACT**

This study critically examined reflective thinking as a multifaceted process. By virtue of its complexity, the task of teaching requires constant and continual classroom observation, evaluation, and subsequent action. It is an analysis of classroom events and circumstances. This study also looked at reflection as a process of rethinking and analyzing certain actions in class that students and teachers reach their teaching and learning objectives. This study utilized the traditional methods of enquiry: namely the speculative; analytic; and prescriptive methods. Findings among others revealed that reflective thinking skills makes it possible for students to achieve “deep learning”; beginning with the experience as opposed to the current trend of beginning with the instilling of information. It is against this backdrop that following recommendations were made, that teachers should be periodically sensitized on the utility and application of reflective thinking. Game of Chess, Scrabble, Monopoly, Lego blocks can be encouraged at all level of learning. For the purpose of developing reflecting thinking, examination/test questions in schools should be tailored in such a way to make the students “Problem-Solve”.

### **Introduction**

Ever since Plato, the good life 'philosophically' has been propagated as a life that is permeated by reflection, that is, a life that aims at wisdom, at finding truth about our existence, and achieving a moral balance in our actions (Plato, 1997). Learning through reflection is one of the most interesting experiences that students ought to have. It is considered a very good tool for self-assessing learning. It is believed that teachers who promote reflective classrooms ensure that students are fully engaged in the process of making meaning. Reflection goal is to identify, evaluate, and consider the beliefs and assumptions that influence one's actions.

Essentially, reflection is important because it is the process that enables teachers to learn from their educational experiences and, at the same time, offers meaning to their teaching practices. Palermo (2010) mentioned that a “teacher's responsibility is to guide.” Teachers who reflect will understand how their concerns and personal theories affect their teaching decisions as

they guide students. Again, experience is valuable in helping teachers reflect on how they learn, particularly on how, as learners, they experience the interplay between cognition and meta-cognition. This is crucially important in shaping the effectiveness of learning and in influencing students' motivations to learn (Webb, 2001). Meanwhile, reflective thinking consists of taking conscious, systematic, and deliberate action in the classroom through ongoing inquiry, in which teachers continuously revise their practices through a cyclical process toward high-quality standards of teaching (Pollard, 2002). Therefore, the current need for educational transformation in Nigeria, amongst educational theorists, can amongst many things bring a renewed interest in what John Passmore (1975) calls "critico-creative thinking," the kind that is consciously norm-governed, but at once, willing to challenge rules that become irrelevant or stultifying. Critico-creative thinking as the opening of new ways of "looking at things" (Passmore, 1975:33) and it is grounded in reflective thought. Reflective thinking is an engine of all kinds of critical inquiry that deliberately challenge desires for certainty and fixity.

Reflective thinking is a multifaceted process. It is an analysis of classroom events and circumstances. By virtue of its complexity, the task of teaching requires constant and continual classroom observation, evaluation, and subsequent action. To be an effective teacher, it is not enough to be able to recognize what happens in the classroom. Rather, it is imperative to understand the "whys" "hows," and "what if's" as well in the classroom setting. This understanding comes through the consistent practice of reflective thinking (McKnight, 2002). Pollard (2008), showed that reflective teaching leads to a steady increase in the quality of education provided for children. However, with the current demands on teachers in improving test scores, students become the victims to an ever-increasing workload with the hopes that if they can produce more work, the result will be higher scores. However, engaging in reflective

practice, students reflect back on completed work, and analyze procedures, thoughts, and conclusions, as well as assess their strengths and weaknesses. In this form of activity, students are keenly making decisions about the work that has occurred, increasing their effective role in that work, and formulating their own conclusions rather than relying on the judgments or statements of others, thereby improving their critical thinking skills.

### **Concept of Reflective Thinking**

Reflection, in the most general sense, is the cognitive inquiry process that contains analyzing and finding ways which will lead to production of new knowledge and experiences in the context of previous knowledge and development of alternative ways. Most commonly, reflection is defined as a thought occurring in consideration or meditation of a past action or experience (Schön, 1983). For Cole (1997) and Freese (1999), it is a desirable attitude and practice to improve one's practice and learning. According to Dewey (1933) reflection is the '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'. He also referred to reflection as a form of thought growing from puzzlement felt in directly experienced situation, and an important aspect of learning from experience. He again maintained that reflective thinking leads practitioner to act in a deliberative and intentional fashion rather than in a blind and impulsive manner. Williams (1998) sees reflection as "a theory of meta-cognition which directs skilled behaviour during professional activity or assists in the deliberative processes which occur during problem solving". Indeed, how people think and reflect upon prior experiences can influence their following professional activities. Seeing reflection as an activity for exploring experience and learning from it, Boud, et al (1985) define reflection as a generic term for those intellectual and affective activities in which individuals engage to explore their

experiences in order to lead to new understandings and appreciation. In short, in reflection, people recall, consider and evaluate their experience usually in relation to improve their practice and to deepen their understanding of that experience (Richards, 1990).

Meanwhile, in the teaching and learning enterprise, reflections give students opportunities to think and reflect about their learning and note down the obstacles they might face during this process. Although, there has been a concerted effort among secondary learning to encourage students to think critically. However, as evidenced by researches (Choy & Cheah, 2009), students may not be able to think critically because their teachers are not able to think critically themselves.

Although, the roots of reflective teaching are historically evident in the works of John Dewey (1938), who maintained that reflection is an important aspect of learning from experience. Worthy to note that reflective thinking according to Dewey (1933) is part of the critical thinking process specifically referring to the processes of analysing and making judgments about what has happened. Therefore, Dewey suggests that this form of thinking is an active, persistent consideration of a belief or suggested form of knowledge, of the grounds that support that knowledge, and the further conclusions to which that knowledge leads. Vehemently, reflective thinking leads educators to act deliberately and intentionally rather than randomly and reactively. But do all teachers engage in reflective activities? This is because when teachers are involved in an active and deliberate reflection and analysis regarding those events, they may lead to formulating new strategies for changing behavior in the classroom (Reagan et al., 2000), he or she is using reflection for professional growth. Although, Brookfield (2004) argued that without reflection, teachers run the continual risk of making poor decisions and bad judgments. Again, he further adjudicated that without reflection, teachers unquestioningly believe that students can

accurately interpret their actions as intended. Therefore, teachers may continue to plan and teach on the basis of unexamined assumptions. They then fall into the habit of justifying what they do as “common sense.” Yet unexamined common sense is a notoriously unreliable guide to action. Reflection itself is not, by definition, critical. Pertinently, learners who think reflectively become aware of and control their learning by actively accessing what they know, what they need to know and how they bridge that gap during learning situations (Sezer, 2008). Therefore, critical thinking involves a wide range of thinking skills leading towards desirable outcomes and reflective thinking helps to integrate these thinking skills by making judgments about what has happened (Shermis, 1999).

In light of the preceding, an important role played by reflective thinking is to act as a means to prompt the thinker during complex problem-solving situations. This is because, it provides students an opportunity to step back and think about how they actually solve problems and to use the best set of strategies to achieve their goals (Rudd, 2007). Therefore, teachers who are able to use reflective practices will themselves be more attuned to using this strategy to help students think critically (Shermis, 1999). However, it must be noted that reflective thinking will facilitate critical thinking and is a practice that must be encouraged among students. Therefore, as a teacher the objective is to go beyond memorization so that students can apply what they have learned to other situations in order to help make the world a better place. If teachers truly want students to think beyond the memory level and to understand then teaching students to become reflective thinkers must become the norm in educational enterprise. In order to allow reflective thinking to become the norm, no matter how long they have been in the teaching profession, they must be enthusiastic about thinking differently. According to Shermis (1999), reflective thinking skills help make it possible for students to achieve “deep learning”; beginning

with the experience as opposed to the current trend of beginning with the instilling of information. Be that as it may, it's quintessential to lay bare the theories encapsulating reflective thinking. Notably too, reflection and reflective thinking are crucial to the teaching and learning process.

### **Theorizing Reflective Thinking in Teaching and Learning**

In retrospect, Socrates set the agenda for the tradition of reflective thinking; to reflectively question common beliefs and explanations, carefully distinguishing those beliefs that are reasonable and logical from those which lack adequate evidence or rational foundation to warrant a belief. Reflective thinking for Plato and Aristotle, like other Greek skeptics, emphasized the need to be able to see through the way things appear on the surface to the way they really are. It is imperative to note that Socrates, Plato and Aristotle provided the bedrock for reflective thinking, but they may not have provided a sufficient ground for reflective thinking. Therefore, drawing inferences from the modern thinkers like John Dewey, Schon, Bloom and so forth, become imperative.

As proposed by John Dewey, Donald Schon, David Kolb, Benjamin Bloom and some others, reflection is quite connected to learning theories. Beginning with John Dewey, he considered reflective thinking to be an active and deliberative cognitive process that involves sequences of interconnected ideas that take into account underlying beliefs and knowledge. In that case, school's actions that became routine are needed to be changed.

In this regard, the idea that teachers need reflection not only to change their everyday routines within a classroom, but also to realize what problems are arising should become a current belief for teachers. It is common to recognize that teachers tend to implement routinized

teaching methods, perhaps because of their teaching beliefs or lack of professional development. Meanwhile, Dewey had several criteria for his concept of reflection. First, reflection is a meaning-making process that moves the learner from one experience into the next with deeper understanding of its relationships and connections to other experiences and ideas. Reflection is the thread that makes continuity of learning possible and ensures the progress of the individual. Secondly, reflection is a systematic, rigorous, disciplined way of thinking, with its roots in scientific inquiry (Rodgers, 2002). In this same vein, Dewey claimed that “Reflective thinking is important not only as a tool for teaching, but also as an aim for education since it enables both the teachers and learner to know what they are about when they act” (Kucey and Parsons, 2010:13). Schon (1987), talks about reflection that is intimately bound up with action. Rather than attempting to apply theories and concepts to practical situations, he holds the view that professionals should learn to frame and reframe the often complex and ambiguous problems they are facing, test out various interpretations, then modify their actions as a result. In addition, Kolb and Bloom suggested that “reflective observation” is essential to build understanding, and that the kind of learning that leads to synthesis and self-development is distinctly different from the acquisition of the objective, factual content of a course” (Eaton, 1985:3). While Gregory, Cameron & Davies (2000:10) assert that, “when students are involved in self-assessment, they provide themselves with regular and descriptive feedback to guide their learning” and this can also include communicating and sharing what students know to peers, parents, or teachers. Deductively, by reflecting on their learning, students deepen their understanding based on experience (Chappuis, 2009).

However, as Boud, Keogh & Walker (1985:7) affirm “experience alone is not the key to learning”. In this case, it is necessary to promote awareness in learners of the possibilities for

learning and the need for them to take control of their own learning. Meanwhile it is important for educators to draw upon learners' prior experience and to provide opportunities for them to be engaged actively in what they are learning. Active engagement is done through the process of reflection, a form of response of the learner to experience. Boud, et al (1985:11), further state, "Only learners themselves can learn and only they can reflect on their own experiences". In a further explanation, they describe the reflective process as quite a complex one in which feelings and cognition are closely interrelated and interactive. In other words, it is not mind wandering or day dreaming, but a purposeful activity directed towards a goal. It is a way of dealing with the vast array of inputs and coping with feelings that are generated. Thus, there is a need for students to process the information they have been given, relate this to their previous knowledge, and test their understanding. In this regard, tests, assignments, and tutorial exercises do not allow students to fully relate to the inputs they receive, which tends to inhibit the development of self-organized learning. So, reflective activity enables effective problem solving to take place and improves the effectiveness of learning.

On the whole, reflective practice can be viewed as a continuous process that involves the learner considering critical incidents in his or her learning or life experiences. It is in this context that Schön asserts that reflective practice involves thoughtfully considering one's own experiences in applying knowledge to practice while being coached by professionals in the discipline (Schön, 1983). He further argued that the model of professional training which relied upon filling up students with knowledge then sending them out into the world of practice was inappropriate, especially in a fast-changing world. Schön (1983) recommended a reflective practice model that will enable learners and even novices within a discipline learn to compare their own practices with those of experienced practitioners, which ultimately leads to



development and improvement. Even though this idea was initially applied to adults, it can easily be transferrable to secondary school students who also engage in a reflective practices with the teachers as experts in the field.

In some quarters, there are other theorists who see reflection as central to constructivism and important to education. Specifically, Bruner (1966) suggested that when students reflect on a difficulty, think about what occurred, and evaluate the outcomes, this helps to increase their conceptual understanding and long-term knowledge retention. The reflective process deductively in teaching and learning is often describe as a set of interacting instructional strategies used to help students actively process content during critical learning experiences. In this manner, reflection is an intentional act, engaging students in questioning their own thinking to construct understanding of it.

### **Summary, Conclusion and Evaluation**

From the foregoing, it could be said that reflection encourages the cultivation of meaningful learning, the development of skills such as articulation, and the theorization of new knowledge. The rationale as Marzano (2010) concluded is that “students who see learning as having the initiative and capability to reflect and to generate new theoretical knowledge are more likely to succeed academically”. Again, students who pursue performance-approach goals are, in general, more likely to adopt the use of reflection, as this process may facilitate better understanding and analysis of knowledge and skill improvement. Likewise, the notion of learning to master new skills and knowledge for interest and skill development may also help students to practice the art of reflection. Reflection, in turn, may enable students to articulate their thoughts, current knowledge, and experience, which ultimately, leads to academic achievement and learning.

Nevertheless, in order to implement reflective practice as a means of developing student learning, reflection, and critical thinking, it is essential that reflection activities are designed to be both retrospective and prospective: students considering their learning experience in order to influence future actions. Effective reflection activities are those that are linked to particular learning objectives of the class, are guided by the instructor, occur regularly throughout the course, allow feedback and assessment, and include opportunities for clarification of values (Hatcher, 1998). Eyler and Giles (1999) found that the more rigorous the reflection in a course, the better the learning, including academic outcomes such as deeper understanding and better application of subject matter, increased complexity of problem solving, openness to new ideas, and critical thinking skills. Additionally, when reflective activities are integrated into class activities and discussions, and appear on exams, students report higher levels of satisfaction with the course and greater academic gains from the experience (Hatcher, 1998).

At this juncture, recognizing the role of reflection in learning and becoming familiar with the basic elements of reflective practice will allow students to begin to understand that knowledge is embedded in their learning experiences, and to realize the importance of this knowledge in improving their critical thinking skills. McPeck (1990) notes that to think critically, students need something to think about. Therefore, by engaging in reflection, students are bringing a high level of awareness to their thoughts and actions. When students take the time to reflect, they develop the metacognitive elements necessary to think and plan how they may do things differently in the future based on either their success or failures at an activity.

Finally, having understood the crux of reflective thinking and its application within education, the following recommendation are made on the ways in which reflective thinking can be encouraged in teaching and learning.

1. Seminars and Workshops: Teachers should be periodically sensitized on the utility and application of reflective thinking. Teachers should be taught how to carry out reflective actions and the several ways they can capture their social environment for reflection (purposes).
2. Games: When reflective thinking is taken as a goal, there are indeed several ways that one can tow to achieve this. Taking a look at Dewey's perplexity approach (reflective thinking), one who is adept with the game of Chess, Scrabble, Monopoly, Lego blocks, etc, will see a direct correlation. If games akin to Chess and others can be encouraged in all levels of learning, we can be sure of gradually imbuing this essential thinking skill in children.
3. Opinion Boxes/ Survey/Questionnaire: To garner social materials for reflection, by the teachers, opinion boxes can be created in schools with the main aim of letting students comment/ventilate on teaching styles of different teachers.
4. Examination Questions: For the purpose of developing reflecting thinking, examination/test questions in schools should be tailored in such a way to make the students "Problem-Solve". Just mere thinking and regurgitation of facts is no-where close to reflective thinking. There should be concerted/deliberate efforts to make the child problem-shoot.

## References

- Ahmad, I., Said, H. B., Zeb, A., Rehman, S., Ahmad, S., & Khan, W. (2013). How *Reflective Practice Improves Teachers' Classroom Teaching Skill?* A Case of Community Based Schools in District Chitral, Khyber Pakhtunkhwa. *Social Sciences and Humanities*, 4(1), 73-81.
- Bett, H. K. (2016). The cascade model of teachers' continuing professional development in Kenya: a time for change. *Cogent Education*, 3, 1-9. <https://doi.org/10.1080/2331186X.2016.1139439>.

- Baldwin, J. & Williams, H. (1988) *Active learning: A trainer's guide*. Oxford: Blackwell
- Beyer, B. (1987). *Practical strategies for the teaching of thinking*. Boston: Allyn and Bacon, Inc.
- Blair, J. A. (1983). *Presentation at the third critical thinking*. Project Speaker/Workshop Series, California State University, Sacramento.
- Bloom, B. S., Engelhart, M. D., Furst, E. J., Hill, W. H., & Krathwohl, D. R. (Eds.). (1956). *Taxonomy of educational objectives: The classification of educational goals*. handbook 1: Cognitive domain. New York: David McKay.
- Boud, D., Keogh, R., & Walker, D. (1985). *Reflection turning experience into learning*. London, UK: Kogan Page.
- Boyd, E. M., & Fales, A. W. (1983). Reflective learning: *Key to learning from experience*. *Journal of Humanistic Psychology*, 23, 99–117.
- Chappuis, J. (2009). *Seven strategies for assessment of learning*. Boston: Pearson.
- Choy & Cheah, (2009). Teacher perceptions of critical thinking among students and its influence on higher education. *International Journal of Teaching and Learning in Higher Education*, 20(2), 196-204.
- Dawe, G., R. Jucker, & Martin, S. (2005) *Sustainable development in higher education: current practice and future developments*. A report for the Higher Education Academy. [www.heacademy.ac.uk/assets/York/documents/ourwork/tla/sustainability](http://www.heacademy.ac.uk/assets/York/documents/ourwork/tla/sustainability)
- Ditchburn, G. M. (2015). Remembering reflection in pre-service teachers professional experience. *Australian Journal of Teacher Education*.
- Dewey, John (1983). *How we think: A restatement of the relation of reflective thinking to the educative process*. Boston: Heath & Company.
- Dewey, John (1997). *Experience and education*. In A. Hall-Quest (Ed.), The Kappa Delta Pi lecture series.
- Dewey, J. (1966). *Democracy and education*. New York: The Free Press.
- Dewey, J. (1933) *How we think: A restatement of the relation of reflective thinking and the educational process*. New York: D.C Heath
- Dewey, J. (1991). *How we think*. New York: Prometheus Books.
- Donaldson, M. (1979). *Children's minds*. New York: W.W. Norton.

Akintude, A. V.

Eaton, M. (1985). *Student self-assessment. Thinking about the way we know*. Retrieved on May 3, 2016 from the web: [http://evergreen.edu/washingtoncenter/docs/eaton\\_selfassess](http://evergreen.edu/washingtoncenter/docs/eaton_selfassess.pdf) .pdf

Gelter, H. (2003) *How can we improve our understanding of reflection in learning?*

Ghaye,T.& Lillyman,S. (2000) *Reflection: Principles and practice for healthcare professionals* Wiltshire: Quay Books

Greene, M. (1978). Teaching: The question of personal reality. *Teachers College Record*, 80 (10, 23-35).

Greene, M. (1986). Philosophy and teaching, In M.C. Wittrock (ed.) *Handbook of research on teaching*, 93<sup>rd</sup> Ed), New York: Macmillan.

Greene, M. (1988). *The dialectic of freedom*. NY: Teachers College Press.

Greene, M. (1991). Teaching: The question of personal reality. In Lieberman, A. & Miller, L. (Eds.). *Staff development for education in the '90s*. New York: Teachers College Press.

Gregory, K., Cameron, C., & Davis, A. (2000). *Knowing what counts: Setting and using criteria*. Marville, British Columbia: Connections.

Grimmett, P.P. & Erickson, G.L. (1988) *Reflection in teacher education* (New York, Teacher College Press.

Hatton, N., & Smith, D. (1995). Reflection in teacher education: Towards definition and implementation. *Teaching and Teacher Education*.

Kolb, D. (1984) *Experiential learning*. London: Prentice Hall.

Kraus, S. J. (1995). Attitudes and the prediction of behavior: a meta-analysis of the empirical literature. *Personality & Social Psychology*, 21(1), 58-75.

Kristiansen, C. M., & Zanna, M. P. (1991). Value relevance and the value-attitude relation: Value expressiveness versus halo effects. *Basic and Applied Social Psychology*, 12(4), 471-483.

Kyles, C., & Olafson, L. (2008). Uncovering preservice teachers' beliefs about diversity through reflective writing. *Urban Education*, 43(5), 500-518.

Kucey, S. & Parsons, J. (2010). *Connecting Dewey and assessment for learning*. Retrieved from the web: [http://files.eric.ed.gov/fulltext/ED514289](http://files.eric.ed.gov/fulltext/ED514289.pdf) pdf

Larrivee, B. (2008). Meeting the challenge of preparing reflective practitioners. *The New Educator*, 4(2), 87-106.

- Leroux, M., & Théorêt, M. (2014). Intriguing empirical relations between teachers' resilience and reflection on practice. *Reflective Practice*, 5(3), 289-303.
- Marzano, R. (2000). *Designing a new taxonomy of educational objectives*. Thousand Oaks, CA:Corwin Press
- Mezirow, J. (1990). *Fostering critical reflection in adulthood: A guide to transformative and emancipatory learning*. San Francisco: Jossey-Bass.
- Osterman, K. F., & Kottkamp, R. B. (2004). *Reflective practice for educators: Professional development to improve student learning* (2nd ed.). Thousand Oaks, CA: Corwin.
- Passmore, J. (1975). On teaching to be critical. In R.F.Dearden, P. H. Hirst, & R.S. Peters (Eds.), *Education and reason*. London, UK: Routledge, pp.415 - 433.
- Plato. (1997). *Plato*. Complete works (J. M. Cooper & D. S. Hutchinson, Eds.). Indianapolis, IN: Hackett Publishing Company.
- Schon, D.A. (1983). *The reflective practitioner: Toward a new design for teaching and learning in the professions*. San Francisco, CA: Jossey-Bass
- Schon, D. (1987) *Educating the reflective practitioner*. San Francisco: Jossey-Bass
- Smith, (1990). *What is critical thinking. Retrieved from the web: ImplementingTasksThatStimulateCriticalThinkingInEF-4462181%20 (1).pdf*
- Sterling, S. (2001) *Sustainable education. revisioning learning and change*. Dartington: Green Books
- Sterling, S. (2003) *Whole systems thinking as a basis for paradigm change in education: explorations in the context of sustainability*. [www.bath.ac.uk/cree/sterling .htm](http://www.bath.ac.uk/cree/sterling.htm)
- Taylor, B. (2007) *Learning for tomorrow*. Boston Spa: Oasis Press