

Teacher Professional Development in Nepal: Theories and Scope

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Abstract

Teaching today takes place in a world of rapid change and development and teachers are expected to meet high standards of teaching and raise levels of achievement in schools and colleges. Goal of teacher professional development is required to ensure that all teachers have the knowledge and skills required to effectively facilitate students learning processes (MoE, 2009). Teaching today takes place in a world of rapid change and development and teachers are expected to meet high standards of teaching and raise levels of achievement in schools and colleges (MoE, 2009). However, this article has highlighted some theories and its scope in education for development of teachers in Nepal.

Keywords: Teacher, professional development, skills, theories and scope

1. Introduction

Education has been the subject of intense accountability measures around the world. As measures to inspect schools and appraise teachers have been introduced under the banner of 'modernizing' teaching, teachers have often felt a lack of ownership and a lack of self-worth (Rudduck, 1991). Within the context of 'rolling reform' and piecemeal implementation, the professional development of teachers has become a high-profile, politically 'hot' issue.

All teachers are required to engage in professional development; to identify, document, record and evaluate it as they cross through the barriers of qualified teacher and induction standards, grapple with targets for performance management, submit threshold applications or bid for research scholarships, international exchanges, professional bursaries and sabbaticals. (Anne Campbell, Practitioner Research and Professional Development in Education, 2004)

The education and professional development of every teacher needs to be seen as a lifelong task, and be structured and resourced accordingly. To equip the teaching body with the skills and competences needed for its new roles, it is necessary to have both quality initial teacher education and a coherent process of continuous professional development to keep teachers up to date with the skills required in a knowledge based society (Hendriks & Luyten & Scheerens & Slegers & Steen, 2010).

The conceptual clarification on professional development given by Guskey (1999) sounds appropriate: "those processes and activities designed to enhance the professional knowledge, skills, and attitudes of educators so that they might, in turn, improve the learning of students ... it also involves learning how to redesign educational structures and cultures" (p.16). He also argues that the deficiency approach (i.e. professional development activities to contribute to make up one's deficiencies of knowledge and skills) is itself deficient, and should cover a wider canvas of continuing professional development (CPD) so as to keep pace with the emerging knowledge base of the profession and its conceptual and craft skills (Panda, 2009).

The professional development of teachers has been a target of government policy. It is contained within an official publication, *Learning and Teaching: A Strategy for Professional Development* (DfES, 2001). There has been a gradual recognition over the last ten years or so of the importance of continuing professional development (CPD), as the English government has launched initiative after initiative in schools and teachers have tried to meet the challenges of rapid change. Literacy and numeracy strategies followed the juggernaut of the National Curriculum and testing, then for example, education action zones, Excellence in Cities, Beacon schools, flagship schools, training schools, specialist schools and colleges, city academies and networked learning communities, to name but a few.

2. Social constructivism

Social constructivism is a sociological theory of knowledge that applies the general philosophical constructivism into social settings, wherein groups construct knowledge for one another, collaboratively creating a small culture of shared artifacts with shared meanings. When one is immersed within a culture of this sort, one is learning all the time about how to be a part of that culture on many levels. Its origins are largely attributed to Lev Vygotsky (Encyclopedia, Constructivism, 2012).

2.1. Social constructivism and philosophy

'Strong' social constructivism as a philosophical approach tends towards the suggestion that "the natural world has a small or non-existent role in the construction of scientific knowledge." According to Boudry & Buekens

Freudian psychoanalysis is a good example of this in action. As Freudian psychoanalysis is also regarded as epistemically fundamentally flawed—using its own inventions to support its arguments—this suggests that 'bona fide' science, which (by and large) is not flawed in the same way, is also not validly subject to social constructivism.

Interestingly, however, Boudry & Buekens do not claim that 'bona fide' science is completely immune from all socialization (Smith, 2001) and the Kuhnian claims of paradigmatic shifts, merely that the 'strong' social constructivist claim that all scientific knowledge is constructed ignores the reality of scientific success (Montessori, 1946) and falls prey to the ancient Cretan, Parmenides' famous dictum, "All Cretans are liars." - including, of course, Parmenides (Kolb, 1984).

2.2. Social constructivism and education

Social constructivism has been studied by many educational psychologists, who are concerned with its implications for teaching and learning. Social constructivism extends constructivism by incorporating the role of other actors and culture in development. In this sense it can also be contrasted with social learning theory by stressing interaction over observation. For more on the psychological dimensions of social constructivism, see the work of A. Sullivan Palincsar.

An instructional strategy grounded in social constructivism that is an area of active research is computer-supported collaborative learning (CSCL). This strategy gives students opportunities to practice 21st-century skills in communication, knowledge sharing, critical thinking and use of relevant technologies found in the workplace.

Additionally, studies on increasing the use of student discussion in the classroom both support and are grounded in theories of social constructivism. There is a full range of advantages that results from the implementation of discussion in the classroom. Participation in group discussion allows students to generalize and transfer their knowledge of classroom learning and builds a strong foundation for communicating ideas orally (Reznitskaya, Anderson & Kuo, 2007).

One recent branch of work exploring social constructivist perspectives on learning focuses on the role of social technologies and social media in facilitating the generation of socially-constructed knowledge and understanding in online environments.

3. Constructivism

Constructivism is a theory to explain how knowledge is constructed in the human being when information comes into contact with existing knowledge that had been developed by experiences. It has its roots in cognitive psychology and biology and an approach to education that lays emphasis on the ways knowledge is created in order to adapt to the world. Constructs are the different types of filters we choose to place over our realities to change our reality from chaos to order. Von Glasersfeld describes constructivism as "a theory of knowledge with roots in philosophy, psychology, and cybernetics". Constructivism has implications for the theory of instruction. Discovery learning, hands-on, experiential, collaborate, project-based, tasked-based are a number of applications that base teaching and learning on constructivism.

3.1. Historical and Theoretical Roots

According to Kliebard, John Dewey created an active intellectual learning environment in his laboratory school during the early 20th century. Neuroscience now supports this form of active learning as the way people naturally learn. Active learning conditionalizes knowledge through experiential learning. Smith writes that John Dewey believed education must engage with and expand experience; those methods used to educate must provide for exploration, thinking, and reflection; and that interaction with the environment is necessary for learning; also, that democracy should be upheld in the educational process. Dewey advocates the learning process of experiential learning through real life experience to construct and conditionalize knowledge, which is consistent with the Constructivists.

Maria Montessori's key points contribute to both Humanism and Constructivism; however, the following quote from her emphasizes her value of experiential learning to conditionalize knowledge:

"Scientific observation has established that education is not what the teacher gives; education is a natural process spontaneously carried out by the human individual, and is acquired not by listening to words but by experiences upon the environment. The task of the teacher becomes that of preparing a series of motives of cultural activity, spread over a specially prepared environment, and then refraining from obtrusive interference. Human teachers can only help the great work that is being done, as servants help the master. Doing so, they will be witnesses to the unfolding of the human soul and to the rising of a New Man who will not be a victim of events, but will have the clarity of vision to direct and shape the future of human society." Montessori's beliefs are consistent with the Constructivists in that she advocates a learning process which allows a student to experience an environment first-hand, thereby, giving the student reliable, trust-worthy [conditionalized]

knowledge.

4. Humanism

Humanism is a group of philosophies and ethical perspectives which emphasize the value and agency of human beings, individually and collectively, and generally prefers individual thought and evidence (rationalism, empiricism) over established doctrine or faith (fideism). The term *humanism* can be ambiguously diverse, and there has been a persistent confusion between several related uses of the term because different intellectual movements have identified with it over time (Glaserfeld, 1989). In philosophy and social science, humanism refers to a perspective that affirms some notion of a "human nature" (contrasted with anti-humanism). In modern times, many humanist movements have become strongly aligned with secularism, with the term *Humanism* often used as a byword for non-theistic beliefs about ideas such as meaning and purpose, however early humanists were often religious, such as Ulrich von Hutten who was a strong supporter of Martin Luther and the Reformation.

Before the word was associated with secularism, German historian and philologist Georg Voigt used *humanism* in 1856 to describe the movement that flourished in the Italian Renaissance to revive classical learning; this definition won wide acceptance (Kliebard, 1992). During the Renaissance period in Western Europe, humanist movements attempted to demonstrate the benefit of gaining learning from classical, pre-Christian sources in and of themselves, or for secular ends such as political science and rhetoric. The word "humanist" derives from the 15th-century Italian term *umanista* describing a teacher or scholar of classical Greek and Latin literature and the ethical philosophy behind it, including the approach to the humanities (Zull, 2002 ; Smith, 2001).

During the French Revolution, and soon after in Germany (by the Left Hegelians), humanism began to refer to philosophies and morality centered on human kind, without attention to any notions of the divine. Religious humanism developed as more liberal religious organizations evolved in more humanistic directions. Religious humanism integrates humanist ethical philosophy with the rituals and beliefs of some religions, although religious humanism still centers on human needs, interests, and abilities (Hendriks & Luyten & Scheerens & Slegers & Steen, 2010).

As the ethical movement began using the word in the 1930s, the term "humanism" became increasingly associated with philosophical naturalism, and with secularism and the secularization of society. The first Humanist Manifesto, formalized at the University of Chicago in 1933 (Hendriks & Luyten & Scheerens & Slegers & Steen, 2010), identified secular humanism as an ideology that espouses reason, ethics, and justice, while specifically rejecting supernatural and religious ideas as a basis of morality and decision-making. The International Humanist and Ethical Union and other organizations describe it simply as 'Humanism', capitalized and without qualification

5. Component of professional Development

5.1. The structures of the learning process

It is important to achieve the right balance between the degree of structure and flexibility that is built into the learning process. Savery (1994) contends that the more structured the learning environment, the harder it is for the learners to construct meaning based on their conceptual understandings. A facilitator should structure the learning experience just enough to make sure that the students get clear guidance and parameters within which to achieve the learning objectives, yet the learning experience should be open and free enough to allow for the learners to discover, enjoy, interact and arrive at their own, socially verified version of truth. (Encyclopedia, Constructivism , 2012)

Humanistic educators believe that both feelings and knowledge are important to the learning process. Unlike traditional educators, humanistic teachers do not separate the cognitive and affective domains. This aspect also relates to the curriculum in the sense that lessons and activities provided focus on various aspects of the student and not just rote memorization through note taking and lecturing. Humanistic education tends to focus on the felt concerns and interests of the students intertwining with the intellect. It is believed that the overall mood and feeling of the students can either hinder or foster the process of learning. (Encyclopedia, Humanistic Learning, 2012)

As described by Gage and Berliner (1991) there are five basic objectives of the humanistic view of education: (olopokol, 2006)

1. Promote positive self-direction and independence.
2. Develop the ability to take responsibility for what is learned.
3. Develop creativity.
4. Curiosity.
5. An interest in the arts.

5.2. The nature of the learner

The type of learner is self-directed, creative, and innovative. The purpose in education is to become creative and innovative through analysis, conceptualizations, and synthesis of prior experience to create new knowledge. The educator's role is to mentor the learner during heuristic problem solving of ill-defined problems by enabling quested learning that may modify existing knowledge and allow for creation of new knowledge. The learning goal is the highest order of learning: heuristic problem solving, meta cognitive knowledge, creativity, and originality.

Social constructivism not only acknowledges the uniqueness and complexity of the learner, but actually encourages, utilizes and rewards it as an integral part of the learning process (Wertsch, 1997).

5.3. The responsibility for learning

Furthermore, it is argued that the responsibility of learning should reside increasingly with the learner (Glaserfeld, 1989). Social constructivism thus emphasizes the importance of the learner being actively involved in the learning process, unlike previous educational viewpoints where the responsibility rested with the instructor to teach and where the learner played a passive, receptive role.

It is called the "Harkness" discussion method because it was developed at Phillips Exeter Academy with funds donated in the 1930s by Edward Harkness. This is also named after the Harkness table and involves students seated in a circle, motivating and controlling their own discussion. The teacher acts as little as possible. Perhaps the teacher's only function is to observe, although he/she might begin or shift or even direct a discussion. The students get it rolling, direct it, and focus it. They act as a team, cooperatively, to make it work. They all participate, but not in a competitive way. Rather, they all share in the responsibility and the goals, much as any members share in any team sport. Although the goals of any discussion will change depending upon what's under discussion, some goals will always be the same: to illuminate the subject, to unravel its mysteries, to interpret and share and learn from other points of view, to piece together the puzzle using everyone's contribution. Discussion skills are important. Everyone must be aware of how to get this discussion rolling and keep it rolling and interesting. Just as in any sport, a number of skills are necessary to work on and use at appropriate times. Everyone is expected to contribute by using these skills.

5.4. The nature of the learning process

Social constructivism, strongly influenced by Vygotsky's (1978) work, suggests that knowledge is first constructed in a social context and is then taken up by individuals (Bruning et al., 1999; M. Cole, 1991; Eggan & Kauchak, 2004). According to social constructivists, the process of sharing each person's point of view—called collaborative elaboration (Meter & Stevens, 2000)—results in learners building understanding together that wouldn't be possible alone (Greeno et al., 1996). (Encyclopedia, Constructivism , 2012)

5.5. Collaboration among learners

Learners with different skills and backgrounds should collaborate in tasks and discussions to arrive at a shared understanding of the truth in a specific field (Duffy and Jonassen 1992).

Most social constructivism models, such as that proposed by Duffy and Jonassen (1992), also stress the need for collaboration among learners, in direct contradiction to traditional competitive approaches. One Vygotskian notion that has significant implications for peer collaboration is that of the zone of proximal development. Defined as the distance between the actual developmental level as determined by independent problem-solving and the level of potential development as determined through problem-solving under adult guidance or in collaboration with more capable peers, it differs from the fixed biological nature of Piaget's stages of development. Through a process of 'scaffolding' a learner can be extended beyond the limitations of physical maturation to the extent that the development process lags behind the learning process (Vygotsky 1978). (Encyclopedia, Constructivism , 2012)

6. Training and Teaching Aspects of Teacher Professional Development

6.1. Approach of Training

There are three approaches to training: (1) the traditional approach, (2) the experiential approach, and (3) the performance-based approach (Rama, Etling, & Bowen, 1993). In the traditional approach, the training staff designs the objectives, contents, teaching techniques, assignments, lesson plans, motivation, tests, and evaluation. The focus in this model is intervention by the training staff. In the experiential approach, the trainer incorporates experiences where in the learner becomes active and influences the training process. Unlike the academic approach inherent in the traditional model, experiential training emphasizes real or simulated situations in which the trainees will eventually operate. In this model, the objectives and other elements of training are jointly determined by the trainers and trainees. Trainers primarily serve as facilitators, catalysts, or resource persons. In the performance-based approach to training, goals are measured through attainment of a given level of

proficiency instead of passing grades of the trainees. Emphasis is given to acquiring specific observable skills for a task. This performance-based teacher education (PBTE) model, developed by Elam (1971), is mostly task or skill centered and is also applicable to non-formal educational organizations such as extension. (Ali)

6.2. The role of the instructor

According to the social constructivism approach, instructors have to adapt to the role of facilitators and not teachers (Bauersfeld, 1995). Whereas a teacher gives a didactic lecture that covers the subject matter, a facilitator helps the learner to get to his or her own understanding of the content. In the former scenario the learner plays a passive role and in the latter scenario the learner plays an active role in the learning process. The emphasis thus turns away from the instructor and the content, and towards the learner (Gamoran, Secada, & Marrett, 1998; Encyclopedia, Constructivism, 2012)

7. Courses and Content of Teacher Professional Development

The constructivism believes that Knowledge should be discovered as an integrated whole. Knowledge should not be divided into different subjects or compartments, but should be discovered as an integrated whole (McMahon 1997; Di Vesta 1987). This also again underlines the importance of the context in which learning is presented (Brown et al. 1989). The world, in which the learner needs to operate, does not approach one in the form of different subjects, but as a complex myriad of facts, problems, dimensions, and perceptions (Ackerman 1996). (Encyclopedia, Constructivism, 2012)

The wide ranges of activities are offered for students allowing for free choices of interest. *According to Bob Green Humanistic education is an educational approach.* Most educators who advocate humanistic education typically intend this approach to mean one or more of three things:

1. *Humanistic education teaches a wide variety of skills* which are needed to function in today's world--basic skills such as reading, writing and computation, as well as skills in communicating, thinking, decision-making, problem-solving and knowing oneself.
2. *Humanistic education is a humane approach* to education--one that helps students believe in themselves and their potential, that encourages compassion and understanding that fosters self-respect and respect for others.
3. *Humanistic education deals with basic human concerns*--with the issues throughout history and today that are of concern to human beings trying to improve the quality of life--to pursue knowledge, to grow, to love, to find meaning for one's existence.

Humanistic education methods are used in public and private schools, the family, religious education, business and other settings. (Green, 1994)

8. Environment

Social constructivism or socioculturalism encourages the learner to arrive at his or her version of the truth, influenced by his or her background, culture or embedded worldview. Historical developments and symbol systems, such as language, logic, and mathematical systems, are inherited by the learner as a member of a particular culture and these are learned throughout the learner's life. This also stresses the importance of the nature of the learner's social interaction with knowledgeable members of the society. Without the social interaction with other more knowledgeable people, it is impossible to acquire social meaning of important symbol systems and learn how to utilize them. Young children develop their thinking abilities by interacting with other children, adults, and the physical world. From the social constructivist viewpoint, it is thus important to take into account the background and culture of the learner throughout the learning process, as this background also helps to shape the knowledge and truth that the learner creates, discovers, and attains in the learning process (Wertsch, 1997). One good example of constructivist learning in a non-formal setting is the Investigate Centre at the Natural History Museum, London. Here visitors are encouraged to explore a collection of real natural history specimens, to practice some scientific skills, and make discoveries for themselves.

8.1. Constructivist learning environments

Jonassen (1997) proposed well-designed, well-structured learning environments provide scaffolding for problem-solving. Finally both Sweller and Jonassen supported problem-solving scenarios for more advanced learners (Jonassen, 1997; Luga, Ayres, Chandler, and Sweller, 2003).

Sweller and his associates even suggest well-structured learning environments, like those provided by worked examples, are not effective for those with more experience--this was later described as the "expertise reversal effect" (Kalyuga et al., 2003). Cognitive load theorists suggest worked examples initially, with a gradual introduction of problem solving scenarios; this is described as the "guidance fading effect" (Renkl, Atkinson, Maier, and Staley, 2002; Sweller, 2003). Each of these ideas provides more evidence for Anderson's ACT-R framework (Clark & Elen, 2006). This ACT-R framework suggests learning can begin with studying examples.

8.2. The importance of context

The social constructivist paradigm views the context in which the learning occurs as central to the learning itself (McMahon 1997). The role of the assessor becomes one of entering into dialogue with the persons being assessed to find out their current level of performance on any task and sharing with them possible ways in which that performance might be improved on a subsequent occasion. Thus, assessment and learning are seen as inextricably linked and not separate processes (Holt and Willard-Holt 2000). According to this viewpoint instructors should see assessment as a continuous and interactive process that measures the achievement of the learner, the quality of the learning experience and courseware. The feedback created by the assessment process serves as a direct foundation for further development. (Encyclopedia, Constructivism, 2012)

9. Methods and Techniques as a strategy of Teacher professional development

While there are critics of the Kirschner, Sweller, and Clark article, Sweller and his associates have written in their articles about:

1. instructional designs for producing procedural learning (learning as behavior change) (Sweller, 1988);
2. their grouping of seemingly disparate learning theories (Kirschner *et al.*, 2006) and;
3. a continuum of guidance beginning with worked examples that may be followed by practice, or transitioned to practice (Kalyuga, Ayres, Chandler, and Sweller, 2003; Renkl, Atkinson, Maier, and Staley, 2002)

Kirschner *et al.* (2006) describe worked examples as an instructional design solution for procedural learning. Clark, Nguyen, and Sweller (2006) describe this as a very effective, empirically validated method of teaching learners procedural skill acquisition.

Kirschner *et al.* (2006) describe why they group a series of seemingly disparate learning theories (Discovery, Problem-Based, Experiential, and Inquiry-Based learning). The reasoning for this grouping is because each learning theory promotes the same constructivist teaching technique—"learning by doing." While they argue "learning by doing" is useful for more knowledgeable learners, they argue this teaching technique is not useful for novices. Mayer states that it promotes behavioral activity too early in the learning process, when learners should be cognitively active (Mayer, 2004).

Mayer (2004) argues against discovery-based teaching techniques and provides an extensive review to support this argument. Mayer's arguments are against pure discovery, and are not specifically aimed at constructivism: "Nothing in this article should be construed as arguing against the view of learning as knowledge construction or against using hands-on inquiry or group discussion that promotes the process of knowledge construction in learners. The main conclusion I draw from the three research literatures I have reviewed is that it would be a mistake to interpret the current constructivist view of learning as a rationale for reviving pure discovery as a method of instruction."

The study by Kirschner et al. from which the quote at the beginning of this section was taken has been widely cited and is important for showing the limits of minimally guided instruction. Hmelo-Silver et al. responded, pointing out that Kirschner et al. conflated constructivist teaching techniques such as inquiry learning with "discovery learning". (See the preceding two sections of this article.) This would agree with Mayer's viewpoint that even though constructivism as a theory and teaching techniques incorporating guidance are likely valid applications of this theory, nevertheless a tradition of misunderstanding has led to some question "pure discovery" techniques.

10. Teachers' Engagement in Research Works and innovation

Hmelo-Silver, Duncan, & Chinn cite several studies supporting the success of the constructivist problem-based and inquiry learning methods. For example, they describe a project called GenScope, an inquiry-based science software application. Students using the GenScope software showed significant gains over the control groups, with the largest gains shown in students from basic courses (Hmelo & Silver, 2007).

Hmelo-Silver et al. also cite a large study by Geier on the effectiveness of inquiry-based science for middle school students, as demonstrated by their performance on high-stakes standardized tests. The improvement was 14% for the first cohort of students and 13% for the second cohort. This study also found that inquiry-based teaching methods greatly reduced the achievement gap for African-American students (Hmelo & Silver, 2007).

Jong Suk Kim found that using constructivist teaching methods for 6th graders resulted in better student achievement than traditional teaching methods. This study also found that students preferred constructivist methods over traditional ones. However, Kim did not find any difference in student self-concept or learning strategies between those taught by constructivist or traditional methods.

Humanistic education is supported by years of research and experience. One of the strongest reasons for supporting humanistic education is that, when done effectively, students learn! Considerable evidence shows that

cooperative learning structures higher self-concepts, and the student's motivation and interest in learning all are related to greater academic achievement. Studies also show that humanistic education can lead to fewer discipline problems; less vandalism and reduced use of illegal drugs...Such research findings do not prove that particular humanistic education methods should be used in all situations. These results do show that humanistic education is a valid educational approach that deserves serious attention and respect.

11. Discussion and Conclusion

Several cognitive psychologists and educators have questioned the central claims of constructivism. It is argued that constructivist theories are misleading or contradict known findings (Vygotsky, 1962). Matthews (1993) attempts to sketch the influence of constructivism in current mathematics and science education, aims of indicating how pervasive Aristotle's empiricist epistemology is within it and what problems constructivism faces on that account.

In the neo-Piagetian theories of cognitive development it is maintained that learning at any age depends upon the processing and representational resources available at this particular age. That is, it is maintained that if the requirements of the concept to be understood exceeds the available processing efficiency and working memory resources then the concept is by definition not learnable. This attitude toward learning impedes the learning from understanding essential theoretical concepts or, in other words, reasoning (Smith, 2001). Therefore, no matter how active a child is during learning, to learn the child must operate in a learning environment that meets the developmental and individual learning constraints that are characteristic for the child's age and this child's possible deviations from her age's norm. If this condition is not met, construction goes astray (Demetriou & Shayer & Efklides, 1992).

Several educators have also questioned the effectiveness of this approach toward instructional design, especially as it applies to the development of instruction for novices (Mayer, 2004; Kirschner, Sweller, and Clark, 2006). While some constructivists argue that "learning by doing" enhances learning, critics of this instructional strategy argue that little empirical evidence exists to support this statement given novice learners (Mayer, 2004; Kirschner, Sweller, and Clark, 2006). Sweller and his colleagues argue that novices do not possess the underlying mental models, or "schemas" necessary for "learning by doing" (e.g. Sweller, 1988). Indeed, Mayer (2004) reviewed the literature and found that fifty years of empirical data do not support using the constructivist teaching technique of pure discovery; in those situations requiring discovery, he argues for the use of guided discovery instead.

Mayer (2004) argues that not all teaching techniques based on constructivism are efficient or effective for all learners, suggesting many educators misapply constructivism to use teaching techniques that require learners to be behaviorally active. He describes this inappropriate use of constructivism as the "constructivist teaching fallacy". "I refer to this interpretation as the constructivist teaching fallacy because it equates active learning with active teaching." (Mayer, 2004, p- 15). Instead Mayer proposes learners should be "cognitively active" during learning and that instructors use "guided practice."

In contrast, (Kliebard, 1992) describe constructivist teaching methods as "unguided methods of instruction." They suggest more structured learning activities for learners with little to no prior knowledge. Slezak states that constructivism "is an example of fashionable but thoroughly problematic doctrines that can have little benefit for practical pedagogy or teacher education." Constructivist Foundations 6(1): 102–111 and similar views have been stated by Meyer, Boden, Quale and others (Meyer, 2009).

Kirschner *et al.* group a number of learning theories together (Discovery, Problem-Based, Experiential, and Inquiry-Based learning) and stated that highly scaffolded constructivist methods like problem-based learning and inquiry learning are ineffective (Kliebard, 1992). Kirschner *et al.* described several research studies that were favorable to problem-based learning given learners were provide some level of guidance and support (Kliebard, 1992).

Humanistic education is an approach to education based on the work of humanistic psychologists, most notably Abraham Maslow and Carl Rogers (Glaserfeld, 1989; Kelly, 1970). In a more general sense the term includes the work of other humanistic pedagogues, such as Rudolf Steiner (Zull, 2002; Smith, 2001; Montessori, 1946), and Maria Montessori. All of these approaches seek to engage the whole person: the intellects, feeling life, social capacities, artistic and practical skills are all important focuses for growth and development. Important objectives include developing children's self-esteem, ability to set and achieve appropriate goals, and development toward full autonomy.

Humanistic education is not necessarily synonymous with good teaching. Just as there are many "traditional" teachers who do a poor job of teaching reading and writing, there are also ineffective "humanistic" educators. We all probably know of teachers of *both* varieties who are open to criticism. This should not lead us to a wholesale attack upon the public schools or upon any particular approach to teaching. Rather than eliminate important goals from the curriculum, we should encourage all teachers to get the training they need to do the best possible job. And we should provide the support and funding to help the schools continue attracting qualified

and competent professionals and find better ways to guarantee that each and every child will have the opportunity for the maximum learning and growth.

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