

Introduction

Psychologists Abraham Maslow and Carl Rogers believed “that our competence to relate to the environment is greatly affected by the stances we take toward ourselves” (Joyce & Weil, 2004, p.291). Otherwise stated, our self-concept – defined as “the way in which we perceive our strengths, weaknesses, abilities, attitudes and values” (Slavin, 2003, p.82) – plays a significant role in the way we interact with surrounding environments. Such surrounding environments may include individuals and groups of people, institutions, prevailing academic theories and even one’s occupational setting. Similarly, constructivism – an educational philosophy predicated on the rational construction of knowledge through experience (Smith & Ragan, 2005) – posits that we interact with, and adapt to, the environment based on “previously constructed perceptual and conceptual structures” (Glaserfeld, 2005, p.5). At the heart of constructivist methodology, therefore, is the notion that it is through experiential adaptation that knowledge and meaning are constructed (Glaserfeld, 2005).

In an attempt to connect Maslow and Rogers to constructivism, one could conclude that self-concept is indeed at the center of knowledge construction, insofar as self-concept is a previously constructed perceptual structure that can act as the impetus for adaptation to surrounding environments. However, if self-concept is foundational for such adaptation (and is one of the perceptual structures upon which knowledge is constructed), then what about the slightly different perspective that our environment also has the ability to change our self-concept? Constructivists call this sort of interaction a *dissipative structure*, a place where self-reorganization occurs, “[resulting] in the emergence of a new structure for coherence and efficiency” (Fosnot & Perry, 2005, p.14). Otherwise stated, having new experiences while spending time in a relatively unfamiliar environment or situation (what one might call an *active*

How can the development of active learning activities challenge my beliefs about teaching, learning, and constructivist theory? 2

learning activity) engenders contradictions to previously constructed perceptual structures and leads to the creation of new knowledge (Fosnot & Perry, 2005). In this way, the development of active learning activities can challenge and change beliefs and perceptual structures of all kinds, whether that be in the areas of teaching, learning or educational philosophy. This, however, begs a few very important questions. Are all active learning activities of equal value? What makes an active learning activity valuable?

Determining the Value an Active Learning Activity

As a potential answer to these questions, one need only turn to the philosophical discipline of metaphysics, which has as its chief objective “to arrive by rational means at a general picture of the world” (Carter, 1990, p.1). Within the study of metaphysics, there is a subgroup of philosophers who call themselves *realists*. While maintaining the metaphysicist’s dedication to arriving at a general understanding of the world, realists concede that “the world is one thing and our representation of the world – our system of beliefs about it – is quite another” (Carter, 1990, p.167). This system of beliefs includes one’s understanding of teaching, learning and educational philosophy, among many other things. Realists conclude that the only means by which one can even approach a somewhat accurate representation and understanding of the world is to employ rationality and reason to interpret the world as it is experienced (Carter, 1990). In this sense, active learning activities that seek to engender change in beliefs and perceptual structures are only valuable to the extent that they either mimic or incorporate realistic circumstance, as opposed to manufacturing other-worldly or unrealistic conditions. This is the litmus test for determining the value of any given learning activity; it should be used whenever one is considering engaging students with an active learning activity that challenges them to construct knowledge about the world in which they live.

Consequences of Engaging in Valuable Learning Activities

The consequences of engaging in learning activities of value, per the benchmark described above, are threefold. Relative to teaching, educators are challenged through active learning activities to “increase the care of their consideration of the intentionality of the learners” (Smith & Ragan 2005, p.21). In layman’s terms, the creation and employment of learning activities force teachers to do so in a truly calculated and purposeful manner by heavily considering the needs and prior knowledge of learners.

Relative to learning, students are challenged by active learning activities to recognize “the tentative nature of knowledge” (Smith & Ragan 2005, p.21) and “the importance of considering multiple perspectives on issues” (Smith & Ragan 2005, p.21). While this is inherently beneficial for learners, it is also the beginning of something greater: It promotes the development of adaptive, introspective, and deeply-thinking individuals whose ability to reflect on the act of constructing knowledge allows them to engage sensitively and proactively in any given community of discourse (Fosnot & Perry, 2005).

Finally, active learning activities can challenge the very theory of constructivism itself, insofar as the knowledge constructed from new learning activities may threaten the validity of previously constructed information. For example, consider a circumstance wherein an activity razes or contradicts an individual’s previously constructed paradigm on a given subject, especially one that had been constructed by a prior learning activity. Certainly, such a contradictory situation calls into question the very ability of constructivism to aid a learner in arriving at a general picture of the world. If learning activities are consistently producing opposing conclusions, mustn’t one wonder if constructivism is merely a relativistic merry-go-round?

How can the development of active learning activities challenge my beliefs about teaching, learning, and constructivist theory? 4

Challenges to Personal Beliefs About Learning

In an effort to personally relate how the development of active learning activities can challenge my beliefs about teaching, learning, and constructivist theory, I must first proclaim the following: I admire Jean Piaget. Furthermore, like other constructivists, I believe that cognitive development and deep understanding should be the goal of instruction (Fosnot & Perry, 2005). It should also be noted that I am a realist and hold firmly to the idea that “thinking is inextricably tied to the real-life context to which it is applied” (Smith & Ragan, 2005, p.20). As a result, the way that I, as an educator, approach the designing of learning activities revolves almost exclusively around experiential learning. And for all of the above-mentioned reasons, one would think that developing valuable learning activities would come easily to me. The truth, however, is that any and all efforts I make to create them seems to consistently challenge my beliefs about teaching, learning, and constructivist theory. Therefore, I find developing valuable learning activities to be an incredibly difficult and trying endeavor.

For example, I recently crafted a learning activity for students at the high school where I am employed. The development of this activity directly challenged my beliefs about learning, specifically. In the planning process, I sincerely sought to allow space for personal self-discovery, student-directed scholarship and individually paced learning – all hallmarks of a constructivist learning activity (Smith & Ragan, 2005). With that said, one might be justified in assuming that the activity fit the preferred learning styles of most high school students, who often favor freedom over a restrictive traditional classroom and are also prone to complain about the boredom induced by lecture and teacher-centered instruction. However, nearly every time I design an activity, I am struck by the fact that teaching through constructivist-based learning activities assumes too much, insofar as it posits that each student has the self-control, discipline,

How can the development of active learning activities challenge my beliefs about teaching, learning, and constructivist theory? 5

desire and curiosity to drive their own knowledge construction. It assumes a certain level of introspection on the part of the learner that may or may not be present, depending on the presence of other variables. Finally, such an approach also presupposes that students have the ability to make conclusions from, and draw parallels to, previously discovered information. If these skills are absent in the learner, the need for other models (not as a substitute, but simply as a supplement) is necessitated. This conflict between assumptions and the potential reality of learning is magnified significantly through the development and employment of active learning activities.

Challenges to Personal Beliefs About Teaching

In an effort to resolve the aforementioned conflict, I have found that the most appropriate solution is to generalize objectives in order to make space for all learners and not simply those who could take part in the activity in the precise way that I envisioned their participation in the first place. Specifically, I have found that trying to develop a learning activity with a predetermined outcome is inconsistent with my interpretation of the appropriate and effective applications of constructivist theory. Of course, this begs a very important question: If developing a predetermined outcome for a learning activity is indeed inconsistent with constructivism, then why go to the trouble of designing one in the first place? This question illustrates the ideological limitations one might often face when developing a learning activity. Furthermore, it represents a significant challenge to my beliefs about teaching.

According to Bergstrom and O'Brien (2001), discovery learning – an important component of modern constructivism – is predicated on the notion that students learn almost exclusively on their own through experience and experimentation. This approach emphasizes the individual capacities of learners to self-direct their own knowledge construction. In light of

How can the development of active learning activities challenge my beliefs about teaching, learning, and constructivist theory? 6

this, any self-professed constructivist such as myself should eschew any effort to manipulate learners through learning activities in a way that seeks to predict or predetermine *what* they are to learn. According to discovery learning theory, activities should be open-ended and open to interpretation (Bergstrom & O'Brien, 2001), and should, therefore, embrace “the tentative nature of knowledge” (Smith & Ragan 2005, p.21) described earlier. Yet such an approach to the development of learning activities challenges my beliefs about teaching, insofar as I hold *objectives* as an essential component of good instructional methodology.

In reconciling these two positions, I have realized that having an objective is different from assessing students based on a predetermined outcome. It is one thing to shoot for the moon, and another thing altogether to consider everyone a failure that has not yet stood on that celestial rock. Therefore, while the objective of a learning activity can be specific and predictive, I have also learned that generalizing the expected outcome of an activity makes space for other successes as well (those that had not been imagined when the active learning activity was first designed).

Challenges to Personal Beliefs About Constructivist Theory

Inherent in the previously described challenges to my personal beliefs about teaching and learning is the challenge, presented by the development of learning activities, to my beliefs about the value of constructivist theory in general. In my experience, creating and employing learning activities never ceases to engender a very important question: Is constructivism actually constructive, or am I engaging my students in activity for the sake of activity only? I doubt that I am alone in asking this. According to Smith and Ragan (2005), the confusion over activity for activity's sake “is represented by the belief that if learners are engaged and enthusiastic, then they must be learning” (p.21). Such a belief is not only false, but also dangerous, insofar as it

How can the development of active learning activities challenge my beliefs about teaching, learning, and constructivist theory? 7

provides a justification for the waste of time that will undoubtedly be the bi-product of such an approach. Any activity worth doing should stimulate changes in beliefs and perceptual structures. Using this benchmark to determine the value of an active learning activity will force any teacher to truly investigate the means by which a constructivist approach is actually accomplishing the aforementioned objective.

Conclusion

While Fosnot (2005) proclaims, “constructivism is a theory of learning, not a theory of teaching” (p.279), it is hard to ignore the fact that the development of active learning activities can deeply challenge one’s belief about both learning and teaching. Through the process of having new experiences while spending time in a relatively unfamiliar environment (which is the definition of *active learning activity* used in this paper), beliefs and assumptions regarding inherent student ability are challenged. In this same way, learning activities can also challenge a teachers beliefs and assumptions about the necessity of objective-based instruction, as opposed to more open-ended discovery learning. Finally, one’s personal beliefs about constructivist theory can be challenged by the mere notion that learning activities often exist as an end to themselves, rather than as the gateway to the new knowledge construction that advocates of constructivism so often tout. Regardless of these challenges, it is important to note that the development of active learning activities creates a tension in the classroom environment that undoubtedly yields significant benefit for students and teachers alike.

References

- Bergstrom, J.M. & O'Brien, L.A. (2001). Themes of discovery. *Educational Leadership*, 58(7), 29-33.
- Carter, W.R. (1990). *The elements of metaphysics*. New York: McGraw-Hill.
- Fosnot, C.T. (2005). Constructivism revisited: Implications and reflections. In C.T. Fosnot (Ed.), *Constructivism: Theory, perspectives, and practice* (2nd ed.) (pp.276-290). New York: Teachers College Press.
- Fosnot, C.T., & Perry, S.R. (2005). Constructivism: A psychological theory of learning. In C.T. Fosnot (Ed.), *Constructivism: Theory, perspectives, and practice* (2nd ed.) (pp.8-35). New York: Teachers College Press.
- Glaserfeld, E.V. (2005). Introduction: Aspects of constructivism. In C.T. Fosnot (Ed.), *Constructivism: Theory, perspectives, and practice* (2nd ed.) (pp.3-7). New York: Teachers College Press.
- Joyce, B.R., & Weil, M. (2004). *Models of teaching* (7th ed.). Boston: Allyn and Bacon.
- Slavin, R.E. (2003). *Educational psychology: Theory and practice* (7th ed.) Boston: Allyn and Bacon.
- Smith, P.L. & Ragan, T.J. (2005). *Instructional design* (3rd ed.). Hoboken, NJ: John Wiley & Sons, Inc.