

Brian Martel

*Identify a major learning theory and explain how this theory influences your views about student learning. What are the relative roles of the teacher, the student, and the classroom environment in learning?*

I consider myself to be a preferably Constructivist learner. Since beginning my Master's degree, I have been teaching myself the programming language Actionscript 2 and developing educational games using Flash CS3 and Actionscript 2 coding for the children in my kindergarten and preschool classes. I have created nearly a dozen games that are accessible via my school website, Kindergarten in Room 108 (see Appendix 1). Surprisingly I could not find one person in the flesh to teach me this programming language, even though it is one of the most popular programming languages you encounter on the web. The only guidance I have had is from, a programming book by Adobe, the forums at Actionscript.org, and tutorials (many very poor) that I have been able to find online. Nevertheless, independently, through trial and error, through exploration and experimentation, through comparing and contrasting, and through successes and setbacks, I have set about learning Actionscript 2.

Like my learning style, my teaching style is influenced by Constructivist models. Constructivism theorizes that knowledge is not just acquired, but that knowledge must be actively constructed by the learner processing information. Ormrod (2008) creates a simple but truly relevant metaphor for the Constructivist teacher that I will expand upon. *Although learners are in the driver's seat in the learning process, teachers provide a road map and offer suggestions about how to move the horse and wagon forward* (Ormrod, 2008, p. 165). To continue the metaphor, I see that in my role as teacher I must be very involved to see the students make successful trips in the learning process. In my role as provider of the map of learning, I must make sure there enticing points of interest

on the learners' journey. I must help the learner tap into their intrinsic motivation and develop a sense of pride in their learning as they explore the map.

Also as the teacher, it is my duty to see that the horse and wagon, the core curriculum if you will, is developed enough to drive future learning. A study by Kirschner, Sweller, and Clark (2006) suggest that until learners have sufficiently high prior knowledge, this sort of minimally guided instruction is less efficient than direct instruction. The Daily Writing Program (see Appendix 2) I developed is an example of where this horse and wagon can go when the learner's trip is scaffolded in such a way that prior knowledge is solidly developed as learners travel along the maps routes.

The role of the student in Constructivist learning is demanding. Constructivist learners must buy into their learning intrinsically. The learners must feel value in what they are learning or motivation is lost. To continue the metaphor, learners must trust that the teachers will help them build the knowledge the horse and wagon needs to move, learning the core curriculum, so that they can explore the maps and construct their own knowledge.

So if Constructivist learning works that's super but, often overlooked is that the learner must be prepared for failures. The classroom environment has to both be one the learner can succeed and fail in comfortably. If that is not the case, a map of learning becomes irrelevant; learners just look for the way out of town.

I rely heavily on the practices of the Responsive Classroom, in particular; morning meeting, interactive modeling, positive teacher language, logical consequences, academic choice, collaborative problem solving (Northeast Foundation for Children, Inc., 1998-2008).

My classroom environment also draws upon what Rainier, Guyton, and Bowen (2000) suggest are important aspects of a Constructivist classroom. The physical environment contains loosely defined space with alternative uses and transitions are child based. The children are immersed in the social environment's self and community management expectations. The linguistic environment is largely child directed with questions and answers of interest that are related to the work at hand. Peer interactions such as impromptu group projects are encouraged. The intellectual and curriculum environments are full of challenges and failures that are viewed as welcome learning opportunities.

There is one more key ingredient to our classroom. Much like the experience in Mrs. Olsen's kindergarten (2009), we play group games daily. These group games help to "decenter" kindergarteners from the ego-centricity typical of their age group. In circumstances like this they develop their own wagon trains and contribute their best learning for the benefit of the entire class. Many discover that as a team they can travel much farther, much quicker, than they could alone.

## References

- Kirschner, P., Sweller, J., and Clark, R. (2006). Why minimal guidance during instruction does not work: An analysis of the failure of constructivist. Discovery, problem-based, experiential, and inquiry-based learning. *Educational Psychologist*, 41 (2), 75-86.
- Northeast Foundation for Children, Inc. About Responsive Classroom.* (1998-2008) Retrieved January 21, 2009, from <http://www.responsiveclassroom.org/about/aboutrc.html#Classroom%20Practices>
- How Children Learn.* Retrieved January 21, 2009, from <http://www.davenport.k12.ia.us/walcott/directory/How%20Children%20Learn.htm>
- Ormrod, J. (2008) *Human Learning* 5th Edition. New Jersey: Pearson Education, Inc.
- Rainer, J., Guyton, E., & Bowen, C. (2000, April 1). Constructivist Pedagogy in Primary Classrooms. (ERIC Document Reproduction Service No. ED440760) Retrieved January 28, 2009, from ERIC database.

## Appendix A

*Website:* Mr. Martizzle presents: Kindergarten in Room 108

<http://www.pomfret.ctschool.net/Classrooms/Martel.B/indexroom108.htm>

*What it is:*

This is the main page of the website I have been developing for my kindergarten class. It contains several links to our curriculum, but more importantly to this context it contains links to nearly a dozen flash games I have programmed that learners can use independently. The flash games include content for children to explore letters, numeracy, polygons, sorting, and fine motor skills.

*What it demonstrates:*

With respects to bridging Constructivist theory to practice, this artifact demonstrates my ability to create minimally guided instruction for learners to explore.

*How it benefits students at the PK-14 level:*

Though these games are designed primarily for kindergarteners, many of my colleagues, some teaching students as high as 8<sup>th</sup> grade, use these games to teach lessons and reinforce or offer skills practice to their students. The beauty of having these games on the internet is that colleagues from other schools and parents tell me that they are using the games as well.

## Appendix B

*EDU 511 final paper:* What would Vygotsky think of my Daily Writing Program.

### *What it is:*

This artifact is a paper I prepared for EDU 511 Learning and Teaching Concepts and Models. It explains (up to the point in time I was in EDU 511 in the fall of 08) the Daily Writing Program (DWP) I have been developing since I began teaching kindergarten. It assesses the DWP primarily through the eyes of Vygotsky, with a few questions that might have been proposed by Piaget.

### *What it demonstrates:*

This artifact demonstrates my ability to create and implement curriculum that would be endorsed by one of the most prominent contributors to Constructivist theory, Vygotsky.

### *How it benefits students PK-14:*

The nature of how the DWP works limits its functionality much passed kindergarten. In a handful of instances, special education teachers at my school have used pieces of the DWP with first graders. On the other hand, some of the more advanced pre-school children I have worked with have begun the DWP in the last trimester of their school year before entering kindergarten.