Personal Theory of Practice: Five Guiding Principles

Anything worth learning should be memorable and transformational in its purpose. Distance learning is no exception. From the hybrid to the online course learning environment, engaging our students is the number one directive and it includes more than just a mechanical transmission of information. How then did the integration of virtual learning environments and dogged determination fail to manufacture perfect courses reflecting how learners learn, which environment works best and in what format information should be presented? Did we forget to include sound instructional design, conclusive learning theories and good practice for the sake of trumped up technology?

Distance education is not just an environment that we log into and work through, it is a space where students learn how to apply knowledge, discuss concepts, reflect on experiences and become autonomous learners; notwithstanding its technology base. In this paper, I will discuss and provide five learning principles within the context of two learning theories, namely Constructivism and Situated Cognition Theory that I find most helpful when providing instruction via both distance and in-class delivery formats. The paper will begin with a brief explanation of the two learning theories followed by the principles and their application "within my teaching-learning context." (Athabasca University, 2007)

My understanding is that while technology does play a rather large component in addressing content delivery, it remains only part of the equation. Online environments generally do not provide users with a multitude of learning formats, instruction or expertise; instead it only provides the shell (Driscoll, 2005, p. 405) to which everything else is applied. Great instructional design, sound learning theories and high student

engagement are the real players in this environment and it is to that end that we need to provide the most support for.

A note to the reader, my teaching theory is based on essentialist, but I have strong tendencies towards progressive environments that encourage creativity, group collaboration and thinking "outside of the box".

Constructivism and Situated Cognition Theory – Briefly Speaking

Constructivist theory exists due to "assumptions common to the collection of approaches" (Driscoll, 2005, p. 387) made popular by Piaget, Bruner, Mayer, Dewey, and a slew of other prominent scientific and postmodern theorists. (Driscoll, 2005, p. 386) Their underlying tenet focuses on learning within the "context of meaningful activity" (Driscoll, 2005, p. 390), activity that connects the learner to what they already know (knowledge) in context to what they perceive as important and valuable (meaning). Contrary to other learning theories, knowledge is not simply created out of thin air (Driscoll, 2005, p. 387), but instead inherent to the individual and "construct[ed] for ourselves as we learn." (Hein, 1991, ¶ 5)

Situated Cognition Theory on the other hand, takes the constructivist theme (including cognitive) and expands further by placing knowledge as adaptable within "a fundamentally social context." (Athabasca University, 2007) Vygotsky's theories are most definitely drawn upon (Driscoll, 2005, p. 157), including Jean Lave "a social anthropologist" and Etienne Wenger a teacher with a doctorate in artificial intelligence. (Smith, 2003) Situated learning derives from "communities of practice" (Smith, 2003 ¶ 3), in which learners are brought together by activities "through … mutual engagement" (Wenger 1998 as cited in Smith, 2003). At this level knowledge transfer now works

dually, not just as a check with our own ideas and thoughts, but as it relates in practice with the perspective and reality of others including our changing world.

Five Guiding Principles

Principle of Activity

Both constructivist and situated cognitive theorists, specifically Piaget, Bruner, Mayer and Vygotsky, suggest that learners find meaning in knowledge through activity; activity that proposes using a more hands-on approach within "an authentic setting." (Bull, 2000, section Instructional Design ¶13) When a user engages in learning via activity, they not only understand better the outcomes that they are to achieve, but can become "transformed through their actions" (Driscoll, 2005, p. 156) and effectively cogitate wisely upon their activity in a broader sense.

Application and Instructional Design

The Principle of Activity is used within my online tutorial, an eight page site that guides the learner through various activities that focuses on becoming familiar and proficient within the Learning Management System (LMS). The user begins at the first page of the tutorial which provides a brief overview of the system, a list of the sections and another menu system that navigates the user back to the main site. The user is not obligated to follow each section sequentially, in fact we suggest that they select a section most relevant to their needs first, which depending on the timing of the semester could be the last, first or middle segment. Once the user has selected a section, they are directed to a page that provides them with a brief overview and a video simulation of the procedure that they wish to master. The video simulation allows the user to watch how the procedure is done and then copy it, all within the confines of the simulated

environment. Many instructors view the tutorials as non-threatening and due to the simulated environment; there is no fear of "breaking" the system or not following the procedure correctly. They can pause, stop and rewind each video via use of a slider menu located at the bottom and most importantly they do not feel trapped should they want to leave the tutorial. At any time, the instructor can leave, come back, and restart the activity from the beginning.

While it has been argued that "restrictive …learning environments … authentic only in a narrow context (Driscoll, 2005, p. 396) can be somewhat exclusionary, the purpose of the "simulated" activity is to help the user become familiar and at ease with the functionally of the LMS *as a whole*. The instructor does not have to follow the directions of the tutorial in order to access the tools within the LMS. The tutorial provides for the basic process only, and ultimately it is up to the instructor to use whichever method they feel most comfortable. For example, we suggest that the "Control Panel" be accessed first in order to setup the tools, but instructors can use the "Edit" function instead, which is located on every page in their course. As the instructor becomes more familiar within the LMS, they find different ways of doing tasks and become less dependent on the tutorials. The instructor can also take what they have just learned from the video simulation and log into the LMS to see first hand everything that they have just worked through, authentically situated. This is the purpose of the video simulation, the procedures are secondary; each activity gets the instructor motivated and engaged with the added bonus of working within an authentic environment.

In addition, there are also feedback mechanisms (including dedicated support staff) that allow for the instructor to inquire about additional video walkthroughs or questions should they arise.

Principle of Scaffolding

Vygotsky attributes scaffolding as "guidance required for learners to bridge the gap" (Driscoll, 2005, p. 258) should they find themselves needing additional help or requiring more structured guidance. The purpose of a scaffold is not to hand hold the user so that the users depend more on the "help" than the activity, but rather to gently guide users upon the right path, so that eventually "the guidance can be withdrawn" (Driscoll, 2005, p. 258) and the user is back completing the task at hand. Scaffolding can also be used as a tool that is available, "when, and if learners require it." (Driscoll, 2005, p. 393) If the learner feels comfortable enough to work through an activity knowing that the necessary supports are available and feel "psychologically secure" (Bull, 2000, section Scaffolding, ¶ 12) within their environment, this will encourage curiosity and higher level of learning will take place. (Bull, 2000, section Scaffolding, ¶ 12)

Application and Instructional Design

The Principle of Scaffolding was used within my in-class orientation training sessions that were held (and still are) during the first few months of the new LMS. The orientation classes were two hours in length and provided a basic overview of all the major components of the system. The orientation was set up in a lab that housed 18 computers, a video projector and an instructor computer. The class was given booklets that listed the various activities provided within the session, a manual and a

question/comments sheet that was to be handed in after the session closed. During the orientation, the instructor provided hands on activities that the users went through, including a small assignment to begin building their course in class. The learners all had access to their individual courses, but they were also provided “course shells”; an environment not attached to their “live” course. Most learners opted to use their own course for the session. While the session was delivered, there was an additional courseware support specialist walking around the room to provide additional help as users needed; many instructors were embarrassed to ask for help out rightly, so the individual support was very comforting and friendly. Throughout the session, learners were encouraged to “play” within the LMS and discover the tools themselves. The instruction booklet given at the beginning was to be used as a guideline, following the booklet page by page was not necessary and the instructor constantly asked for feedback from the learners which tailored the orientation sessions to some extent. While much scaffolding was given by way of instructor and assistant, there was an unintentional scaffold appearing; the learners themselves were helping each other out, discussing various ways of using the tools and showing each other how they “did” it. This was highly encouraged, and many learners also provided contact information to the participants at the end of class should they need further help. After the session was finished, learners were also given additional consultation time with dedicated support staff should they need more help than what was provided in class. Many instructors took this help, as they were still (some, not all) unsure of adding content to their courses.

In addition to the in-class orientation sessions, a website was designed so that learners could access the orientation via a tutorial (see above), contact information for

courseware support specialists including phone numbers, frequently asked questions, and a slew of downloadable guidelines advising learners how to create courses. There were also numerous case studies available for learner's (mainly instructors) to peruse and reflect upon. Many instructors found that seeing other faculty working through the same challenges that they were experiencing extremely helpful and reassuring.

Some instructors jump directly into the foray when learning the LMS. For them, the tutorials are there in case they need help or have forgotten a step.

As an aside, an issue that cropped up early was that the LMS had numerous down time outages, and most of the help files were only accessible within the LMS; when the LMS system is not working, access to those help files are restricted. The website provided constant access to the orientation booklets, help files and tutorials.

Principle of Social Engagement

Constructivists and situated cognition theorists especially Lave and Wenger (Smith, 2003), all agree that the majority of cognitive development happens "through social interaction". (Driscoll, 2005, p. 396) Vygotsky articulated that "development do[es] not occur in isolation" (Driscoll, 2005, p. 249), it must be generated within the means of interaction and skill development. Individual learners may be able to learn in isolation, but without a social network it is nearly impossible to "understand [a] point of view other than their own." (Driscoll, 2005, p. 397)

Application and Instructional Design

The Principle of Social Engagement is the only principle to which I have yet to create in my teaching courses. My courses are mainly teacher led, two hours in length and do not require any kind of online format. I will however discuss this principle as it

pertains to my current course MDDE603, in particular the previous assignment that involved collaborative group work.

Our previous assignment was to collaboratively work together and produce a response to a proposal that outlined specific instructional design strategies within the context of one or more learning theories that we had learned about to date. The first step was to find and solicit members of the group, which lucky for me was done by the first member of my group in the social café. After emailing her my interest to join, another two people joined the group and we "publicly" told the rest of the class that we had enough people, therefore the group was closed. Initially I was cast as the "task master", a named I coined by myself, but eventually I backed off to allow for other members in the group to discuss and take the lead, especially since I am not keen on having to make decisions for others – I can, but prefer to only make decisions for myself. The first post was initiated and I began to layout my thoughts of how the proposal could be laid out in regards to structure, theories to use and timeline. This post was then adjusted to reflect another member's opinion on how the layout should be done, including a more thorough learning theory approach. Another member joined in and divided up the sections of the work, including timelines so that everyone knew when we should expect sections of work to appear. The first member of our group created a table that had everyone's name, review agenda and which section they were responsible for editing. Everyone was to review and edit each others work; for the most part that worked out very well and the majority of group members responded in a timely fashion, but one member in particular did not respond to everyone's posts and was emailed individually to ask "where they were". When the sections were being submitted

and reviewed, it was very humbling to have to see your work get edited or rewritten due to different writing styles and grammatical corrections. I posted early on that I find discussion boards very cold; forums are a cold medium and I may sound harsh or abrupt but I personally am cheerful and very comical! Once that comment was posted a few other members of the group also agreed, and I felt at that point truly connected to everyone as I did not fear being isolated or hurting anyone's feelings. I also became more open to suggestions and excited to see the comments on my paper, rather than feeling like my work was being critically deconstructed to fit another person's thought process.

Principle of Ownership

Constructivism supports (Honebein 1996; Duffy and Cunningham 1996) that all learners should be "actively involved in determining what their own learning needs are" (Driscoll, 2005, p. 399), rather than having them dictated by prescriptive formats or mandated via behaviourist teaching methods. The teacher should "serve as coach and resource, sharing in the process" (Driscoll, 2005, p. 400), guiding, but allowing the individual to self identify their own learning goal (Driscoll, 2005). If a learner feels in control of their learning, they will not only follow through with the instruction at hand, but become "committed to its eventual solution." (Bull, 2000, section Instructional Design, ¶ 2)

Application and Instructional Design

The Principle of Ownership is used within the LMS; the exact tool is called portfolio. My first introduction to the portfolio feature was early this year when the tool was turned on and instructors were anxious to learn how to create an "online presence".

At first blush, the portfolio tool looks like a regular text editor, but it can incorporate flash files, HTML code, audio/video files and discussion boards, even blogs are acceptable. The first step that I used to help instructors “get a feel” for the tool was to let them come up with an outline of what they wished to have on their site – it was their site and I wanted to show them that anything was possible. One instructor in particular came back with the idea of using the portfolio as a tool to view articles that could be commented on, something like a blog or a discussion board. He also wanted to provide a CV and show images of his trip that he went on. This is where I came in. I showed him how to log into the site and navigate to the Content area where the Portfolios were situated. I opened up the tool, showed him how to work the menu and asked him to play with the formatting a bit. He did so, but with slight hesitancy, when questioned he responded that he was not that familiar with the tools and wanted to work with them alone first before having me see the site. I obliged. After one week he came back into my office, flushed with excitement! He had put his first page up and after quite a bit of false starts got the discussion board running so that people could comment on his article. What really impressed me was the initiative and commitment that he took to achieve his first site; he took the first step and opened up to a new world of possibilities. After the articles were posted in the portfolio, he continued to expand the site by posting his CV and subsequent pictures. Since then, he has come up with a guideline on how portfolios can be used within the LMS and instructions on how to start – all through the power of taking ownership for his material and content, including the ability to learn a whole new system!

For this instructor taking ownership for his project turned out exceptionally well, but according to Steinberg(1989), “facilitating …individual achievement” (as cited in Driscoll, 2005) is not always an easy task. In fact, it seems that the majority of learners when given the option to self-direct, “choose the quickest route through the instruction” (Driscoll, 2005, p. 400) and do the least amount possible; they “get the work done” but without showing any pride in ownership. Other issues included learners not understanding exactly what their needs were, unwillingness, and lastly not ‘buy[ing] into’ the notion of managing their own learning.’ (Driscoll, 2005, p. 400) While the critics do pose some interesting observations, any educator that takes the constructivist approach understands that their course will require a significant more amount of time and dedication, based on the fact that their course content is derived from the outlook and outcomes of various learning styles, engagement and scaffolding required. It is very easy to put together a course with a few handouts and some graphics, but much more difficult to create content in the context that constitutes ‘”thinking both about X [the content] and about the learning process reflectively”’ (Perkins, 1991b, p. 20 as cited in Driscoll, 2005, p. 400). We have been teaching our students (since they were four) how to be good passive and receptive learners, of course they are unengaged or “apathetic” when given the opportunity to self-direct, but we as educators can change this. If the instructor takes the time (in the beginning) to create a course that looks at all of the possibilities and incorporates this into their course, students will appreciate the course and engage appropriately. You simply cannot drop learners into an environment and expect them to learn, you must do the work first (instructor and student) in order to gain the rewards. Nothing from nothing equals nothing, this holds true in education also.

Principle of Multiple Modes of Learning

According to constructivists Knuth & Cunningham, multiple modes of learning should "be exploited in terms of ...contribut[ing] to the knowledge construction" (1993, p. 172). That is, a learner should have access to material presented in various modes, which “enables different aspects of it to be seen” (Driscoll, 2005, p. 399). Not everyone constructs knowledge in the same way, so it is to our advantage as educators to give ““multiple juxtapositions of instructional content” (Driscoll, 2005, p. 398) to allow users the opportunity to comprehend the selected material without struggling to figure out if they have formed the correct interpretation. In addition, technology has also made presenting various modes of representation to the learners much easier. The applications of most courseware systems all support various types of content, be it text, visual or audio.

Application and Instructional Design

The Principle of Multiple Modes of Learning is used within my online help section. The online help section is a compendium of frequently asked questions, learning guides, how-to’s and of course, the online tutorial. The most robust form of instruction is located within the “how-to” section, an online guide split up into four sections according to their specific function, namely Course Administration and Course Maintenance, Adding Content, Communication and Collaboration and Assessment and Grading. The learner at a glance scrolls to the section that they are working within, selects a tool and is taken to a page that textually shows them the instructions including additional audio and video clips positioned next to it, should the learner need to “visually” see how the instructions mechanically work. There are also audio clips added within the small

movies so that if the learner has their sound “on”, they can listen to the instructions. Located within the entire movie are also “bubbles” of instruction, small text bits that reiterate what to click on, when to click and tips and tricks provided for the user aiding them as they learn the tool.

One how-to in particular found in the assessment section was recently modified to incorporate additional graphics visualizing the newest building block called the Advanced Section Group Management (ASGM) tool. This included a PowerPoint on how the tool is to be used instructionally within a class and specific graphics that pulled out the various components seen within the tool. When displaying a new item within the help sections, the guideline was not only to show the learner how to use the tool, but what the tool is specifically used for, in what context and how the tool is displayed once activated. For many learners’ names such as Advanced Section Group Management tool are ambiguous, words need to be clarified and constructed so that the user says, “yes, that is what I was looking for!” While I have little say in how the “new” tools are named, I do have complete production rights on how to display to the learner the qualities of the learning tool. Many learners have commented on its “ease of use”, in addition to the helpful tidbits that I include.

As an aside, when I create the learning aids, I actually talk aloud, walking through the process as if someone were listening to me. I find that this helps when writing to an audience that may not always understand the technical jargon related to the tool.

A disadvantage that immediately comes to mind is that for many instructors “different aspects of the same content” (Driscoll, 2005, p. 399) can be difficult to create.

Instructors have been taught to teach content, not necessarily create it. (Goertz, 2007, MDDE 611) If the institution that they work for does not have multimedia designers or graphic artists available to the instructor it can become downright frustrating (if not impossible) to develop various modes of learning. Planning on the instructor's part, including finding out the available resources located within the institution should be the first priority prior to any "creative" add-ons.

Conclusion

While there are a multitude of additional learning principles that work equally well, the five listed and outlined above activity, scaffolding, social engagement, ownership and multiple modes of learning are the tools that allow me to engage my user to their fullest extent. As I progress through my teaching and training career, I may find that I require additional principles and new instructional design techniques that will help me to provide the best opportunity for my students. Self-directed learning is not easy, but if I can help by way of access and interpretation, learners will have a better chance to gain the expertise and knowledge that they require.

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