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Second Online Discussion Week October 31, 2005

Question 1

The authors in the CBR article make a strong case that CBR provides a compelling foundation for case-based learning (p.2) and that situated cognition is the primary psychological foundation of the learning environment they created "because the assumptions of CBR about the nature of knowledge and the learning process are consistent with situated cognition" (p. 10). Do you agree with this?

In other words how do CBR and situated cognition align theoretically?

Use your prior knowledge about situated cognition (previous readings in this course) to justify your position.

-----**Lori Response Monday 10-31-05 Time:** -----

I agree that situated cognition is the founding theory for case based reasoning. Dabbagh defines situated cognition as "a learning theory that emphasizes learning as a social phenomenon and knowledge as extending beyond an individual's mind to encompass the products of a culture and the process of groups interacting with one another and the environment." In comparison CBR also believes that it is taking the learners culture, interactions with others and past experiences to be interpreted to create new situations.

For example think about a lawyer. In order to represent a client in court, he or she must understand the situation he is representing. From that the lawyer will think about past experiences whether his own in past cases in court, or other cases world wide that have been documented and reflect on how those cases were won. At that point he or she combines cultural experiences and past experiences to form a solution for the new situation. I took an environmental law class where this is all we did. We read former cases and read unsolved cases and had to formulate our own solution of how the case should be handled.

-----**Gwennane's post to question 1 Nov 2 8:34 am**-----

I disagree. I think it's a good option for preservice teachers before they have a chance to get into a classroom. I don't think it should take the place of real classroom experience, but I think it can give them some experience a little earlier. When I was in preservice education, I didn't get any field experience until student teaching in my last semester. The CBR learning environment that Kim, et. al. are describing would have helped me. I'm not sure how their web-site is set up. (Do we have an opportunity to look at it?) I'm envisioning a lot of video of classrooms, lesson plans written by experienced

teachers, and authentic work by students. This kind of thing would get preservice teachers involved in activities that real teachers do everyday. I think it also would provide different perspectives. Preservice teachers could watch videos of many different classrooms. The teachers in the videos would have different teaching styles and philosophies. The preservice teachers could compare and contrast the philosophies. This would help them develop their own philosophy. Realistically, how many different classrooms could you take part in (or just observe) as part of a preservice program? 3 or 4 at most? This gives them an opportunity to observe and interact with many more. I can really see the possibilities!

-----Lori's response Nov 2-----

I agree with Gwenanne. I checked out the video's from the url on page 13. These are valuable resources for a pre-service teacher. Not only can they observe classrooms for teaching styles, lesson activities and philosophies but they can do it from their own computer without traveling and see multiple classrooms in a matter of minutes. I started my undergrad in a pre-kindergarten through third grade program. In my first year I was required to observe classes at the University's Elementary school (a school for the professor's kids). I quickly realized a class of 20+ kindergarteners and me was not a career I wanted to be in. Doing these observations took hours in traveling and class time, while if they had a resource such as these videos you can learn at your own pace and revisit them over and over again. Gwenanne I can't imagine getting to your last semester without having any field experience. I'm glad you enjoyed the choice you made after all that time.

Question 2

Visit one 4(or both) of the CFH examples under Module 4 resources (link is on homepage). Your choice of either "Reintroduction of the Wolf in the Southeast" or "Sexual Harassment in the Workplace". The sexual harrassment CFH has been described in detail in Harvey's paper.

These two case-based learning environments are examples of Cognitive Flexibility Hypertexts (CFH), one of the pedagogical models discussed in chapter 5 of my book. Spend some time interacting with these CFHs keeping in mind the characteristics of a CFH as described in chapter 5 of my book.

Do you think these CFHs can be considered examples of Case Based Reasoning (CBR) as described in the Kim, Hannafin, & Thomas paper? Try comparing and contrasting them to the CBR examples provided in the readings to help formulate your answer.

-----Lori Response Monday 10-31-05 Time: -----

I visited the CFH "Sexual Harassment in the Workplace". I am not convinced this CFH is an example of a CBR. According to Kim, Hannafin and Thomas; CBR assumes that humans think in terms of cases – interpretations of their previous experiences that are adapted to new situations (Kolodner & Guzdial, 2000). The scenarios provided in the Sexual Harassment in the Workplace do provide the student with multiple perspectives on the situation. I read the cases of the toying company and the derelict dresser and both of them allow cognitive flexibility (Dabbagh, pg 174). These items in this scenario do not represent the CBR Process presented on pg 4 from Kim, Hannafin and Thomas.

According to them, the CBR process involves accessing a new case (problem), retrieving an old case from memory and applying it to the new case. Then propose a solution to the new case using what worked from the old case. Once it is tested, evaluate the situation and store what is learned to memory for future use. This process does not take place in the Sexual Harassment in the Workplace CFH.

I do think if the question was proposed "is the learner's experience in the Sexual Harassment in the Workplace scenario an example of a CBR?" then it could be an example of a CBR. If this is the way the question was presented, as I read the scenario's under the theme: power, I kept thinking back to various situations in my past and was including them into the scenario thinking what I thought would be the correct solution to the case.

-----Dr Dabbagh's response to my post Nov 1 5:52 pm-----

I am not sure I understand your point. Let me try. You are saying that the CFH on sexual harrassment is not an example of CBR because learners are not encountering a new case and trying to solve it using an older case, whether from personal experience or the case library? Perhaps you are saying that the CFH is more open ended the CBR process is more linear?

Perhaps, but the goal of CFT (and I emphasize CFT here not CFH) is the same as CBR in that both **theories** promote the indexing of experiences in a nonlinear fashion to provide cognitive flexibility. I agree with you that the implementation may be different. What do others think?

-----Lori's response Nov 2-----

I should make my statement more clear. I do think that CFH and CBR are both open ended processes. Both allow students to think in terms of cases and use previous experience and old cases to help solve a new case. My confusion in how the Sexual Harassment in the workplace is considered a CBR is because the website shows a bunch of scenario's and perspectives on the case. But there is no resolution or proven end to the case. Am I the learner then suppose to go to an external library of cases to research similar cases and come to my own conclusion of this case? If so then yes this is an example of CBR.

-----Gwenanne's post Nov 3 2:26 pm-----

I'm thinking about the study we read related to the sexual harassment site. The researchers found that the task the students were asked to do directly affected their attitudes toward sexual harassment. The students who had to create a policy showed a greater change in attitude than the students who had to provide a verdict. So, it's not enough just to create a web-based learning environment with cases that provide multiple perspectives. The students have to have something purposeful to do with the material. In this study, both tasks were open-ended and complex, but one task was more beneficial in terms of changing attitudes. What was it about the nature of the task that made it better? Godshalk, Harvey, and Moller thought that the policy task was more exploratory in nature and therefore resulted in a more flexible understanding of the content (p. 14). I agree. I think the students that had to create a policy tried figure out a policy that would be fair to everyone involved. So they were focused on the different perspectives. The students acting as jurors could judge the case based upon their prior understandings or their own views. There is nothing inherent in the juror task to take them outside of their pre-existing views.

-----Lori's response to Gwenanne on Nov 4-----

Gwenanne

I like the way you are thinking. It is very true that those students who had a purpose to look into the cases really got involved and researched possible solutions to the problem. This shows true cognitive thinking going on. It's almost as if these students stepped outside their normal "box" to resolve a problem. Whereas, the students who were the jurors only use prior experience to resolve the problem did not step outside their normal views to create a new solution. A case based reasoning website would need careful planning and consideration as to the purpose of its existence.

-----Final Question-----

The Intro to this question is long so bear with me.

On pages 228 and 230 of the Kolodner & Guzdial chapter, the authors mention that an efficient method of building case libraries is to engage students in this effort. The professor in the College of Architecture (p. 228) had lower level students do this using Design Muse. STABLE (p. 230) "uses a hypermedia collection of cases made from pervious students' work."

While reflecting on this, it dawned on me that I am doing something in similar in this course. In fact, over the 5 years of teaching this course, I kept track of students' previous final projects, and each semester, I selected what I considered "exemplary models" of project proposals (scenarios & learning outcomes), design documents, and prototypes. The "solved" and "unsolved" scenarios that are on my book's companion website were all based on students' previous work. It sounds to me that I am building a "case library" using students' previous work as suggested in the readings.

However the problem is that I do not have an indexing system or method that aligns with CBR principles. In other words, I do not have an appropriate "scaffolding strategy" or structure to support "reflection".

Right now I am simply using "case libraries as a resource" (see top of page 221).

I can argue however that the learning activities that you engaged in recently (chapter 5 activities) can be considered as "supports for reflection" (see top of page 221). I can also argue that I have a simple hypermedia structure, basically, dividing the scenarios/projects into higher education, corporate, and k-12 contexts.

I would like to explore with you in the next 2-3 days options or suggestions for building a "case index" and "case processor" that reflects the principles of CBR. In other words, what strategies for reflection do you think I should use to scaffold you when using these resources? The readings provide many examples on how to do this. Particularly figures 9.2 and 9.3 on pages 231 and 232. The bottom of page 230 also provides suggestions.

How do you think the case library for this course can be indexed and/or scaffolded using CBR or GBS principles to help you better understand or 'index" the instructional design principles that I am trying to convey to you through the final project activity?

In other words what type of technology-based CBR scaffolds (indexes, prompts, cues, supports, etc.) should be included for this case library to better guide students like you through the final project activity?

-----Lori's response Nov 5-----

I think and index similar to the STABLE example provided in Fig. 9.2 would be an excellent method to provide scaffolding for the case library. All provided via webpages.

Begin with an overview of the final project such as our requirements document you have provided us.

Proposal Outline

Final Project Criteria and Evaluation

Provide a goal for the project or final outcome expected "What you will have when you're done" pg 231.

Provide Steps needed to take to complete project:

- Ex. Review the problem statement
 Analyze the problem
 Determine which model will solve the problem
 Build the solution
 Reflect on how the solution can be expanded upon for other problems

Provide examples grouped per constructivist based pedagogical model.

- SLE (situated learning environment or anchored instruction)
- Cognitive Apprenticeship
- Community of Practice (CoP)
- Microworld/Simulation/Game
- CFH (cognitive flexibility hypertext)
- PBL (problem-based learning)
- Goal-Based Scenario (GBS) or Case-Based Learning
- CSILE (computer-supported intentional learning environments)
- Learning By Design (LBD)