Pedagogy - Reflection Entry 4

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1   Self-Study

I start with an idea for the connection between research and teaching. From my opinion as my field, I think that the state-of-the-art knowledge is a set of applications from fundamental knowledge as background. Hence, to understand, the history of the field or reasons and previous solutions even forgotten solutions. Based on analyses of previous studies, the students can have a big picture of the course (not much deep but general enough). A state-of-the-art study at the current (from my view) focuses and goes deeply while a fundamental background from previous studies can be seen as a mandatory requirement for future study.

About student feedback, it is really hard to deal with those. From my own experience, my lecturer kept the feedback and just give me a summary on how is it going as negative feedback. After the course, we sat together and he mentioned issues which students displayed as negative ones. I have to say that it is really hard to admit those negative, but we will try to find a way to do it better.

After searching on the Internet, I found this paper can be an example for the requirement. The paper's name is "Utilizing Artificial Learners to Help Overcome the Cold-Start Problem in a Pedagogically-Oriented Paper Recommendation System" [1]. This paper mentions the cold-start problem in an *evolvable paper recommendation e-learning system*. The experiment of the paper is also deployed both human and artificial learners. The artificial learners handle the cold-start recommendation problem when the human cannot rate and issues are related to human' subject. Moreover, with Sonja' suggestion (for keywords: teaching or learning instead of pedagogy), I have found many other papers related to a way enhancing the study in my field such as [2, 3]. The main idea of those is to utilize games or the way to implement games in order to form a programming logic for children. As a result, the students can strongly learn many concept in computer science field [3].

2   Discussion

To start with the discussion, Sonja divided the participants into small groups for discussion related to their self-studying. After that those participants (we) rejoin the main video conference again to share information or opinions from their group. A student shows his opinions based on 2 feedback examples. He shows that if the number of positive feedback is greater than the number of negative feedback, we can ignore those negative things.

The lecture indicated that how we handle with positive and negative feedback. In a way, the positive feedback save teachers from negative; however, the negative can help teachers to improve in the course. Due to human behavior, the students can give very emotional feedback, comments and etc. For example, there are some feedback which can be the voice, appearance, etc. Additionally, a student mentioned a question which is "how to improve based on the feedback since there are different group of students". For instance, we cannot apply a feedback from a group of students to another group due to the difference of groups' target. The advise is try to specify the feedback from the students. To deal with it, there is a way by which the teacher should ask immediately at the class. Moreover, the teacher can ask details from the students from the students' feedback (as the end of a lecture). Otherwise, the teacher can utilize online feedback as survey. Another the advise is to ask feedback as many as the teacher can so that the teacher can improve it through the course.

The discussion is now moved to the article and the idea of this requirement. Sonja asked a question "Is it difficult to look for a paper related to pedagogy?". The question is support a look on the research related to teaching on every field. From this idea, the lecture emphasises that it can be a branch from each field which the students can extend their current work. In addition, the paper can show effective teaching methods or assessments from the field. Even though this is also a good chance for students to understand on the teaching research on their field.

This idea is really interesting since I have never thought on teaching issue related to my field before. This is really a good chance for me to think on it and open my mind. I think this can be a branch from every research field which can be considered to develop.

Then the discussion has moved to the math education since the students in the class definitely judge the level of smart based on the mathematics. From this perspective, the students go through on the idea of the importance of pedagogical course which supports a view for future teachers. This leads to a general idea for those teachers "how to handle human being issues". Then, a student mentioned a set of teaching methods and assessments from a book related to three countries including Japan, Germany and USA. The student cites the book that the Japanese education shows a stronger than other nations through problem-solving.

The connection between teaching and research is then mentioned. There is a statement that utilizing state-of-the-art knowledge from the research leads to a variety and support much more the students in the solving problems. A

student representing from a industrial view mentioned that is really useful since the students do not have much knowledge (out of update) after graduation or University. A student from a view of academy added that the students without a cutting-edge knowledge can lead to a gap for producing more research papers. The connection here also makes sense to the article above. Another student gives a debate about the previous students that in some special case where the teacher is not an expert on the course. In other words, the course is not related to the teacher's research path.

As a summary of the online lecture, Sonja mentioned a short briefly the lecture. Then, she detailed on teaching portfolio and explain it as a description of **teaching philosophy** including practical experience, teaching material, exams for the course, how to develop as a teacher, etc. From this perspective, I can see it as a CV, but only relate to the teaching. Therefore, the teaching portfolio can contain students' feedback and vision to develop the course so far. In other words, the teaching portfolio is good representation of a teacher in every aspect.

References

[1] T. Tang and G. McCalla, "Utilizing artificial learners to help overcome the cold-start problem in a pedagogically-oriented paper recommendation system," in *International conference on adaptive hypermedia and adaptive web-based systems*, pp. 245–254, Springer, 2004.

[2] N. Tillmann, J. De Halleux, T. Xie, and J. Bishop, "Pex4fun: Teaching and learning computer science via social gaming," in *2012 IEEE 25th Conference on Software Engineering Education and Training*, pp. 90–91, IEEE, 2012.

[3] O. Meerbaum-Salant, M. Armoni, and M. Ben-Ari, "Learning computer science concepts with scratch," *Computer Science Education*, vol. 23, no. 3, pp. 239–264, 2013.