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The use of a virtual guest speaker as a catalyst for deep learning

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Abstract

Teaching undergraduate students as they prepare to become bilingual teachers is often a challenge due to their maturational development and the logistical limitations of college courses. Nevertheless, teacher educators must foster preservice teachers' understanding of factors that impact learning and academic success. This article analyses the use of a virtual guest speaker in an asynchronous discussion as a way to promote critical analysis of policy issues which superseded the memorization of concepts taught in the course. Analysis reveals that the virtual guest speaker served as a catalyst for critical thought about the course content.

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1. Introduction

One challenge in teacher education is to promote an understanding of the principles and concepts of the field that supersedes a superficial memorization of curricular content. The complexities of the classroom require a critical stance and the ability to examine intricate problems from different angles. Teachers should know how to examine the myriad contextual factors that impact their students' learning. To address these factors requires more than a simple understanding of learning theories and research-based methods. To become effective practitioners, teachers must employ critical reflection and an examination of the sociopolitical influences on children's homes and communities that may impact academic learning.

Based on current knowledge of how to promote this kind of understanding, an online discussion with a guest speaker who authored one of the main reading assignments was implemented at the end of a course in an undergraduate, bilingual teacher preparation program. This activity was implemented in an effort to promote integration of the various concepts learned during the semester, since students had already had the opportunity to build a knowledge base that would serve as the foundation for the dialogue. An analysis of the online interaction with the guest speaker reveals that the dialogue served as a catalyst for deep learning.

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2. Theoretical background

Studies have shown that pre-service teachers are usually not ready to engage in critical reflection due to incomplete maturation and a limited knowledge base of the field (Galvez-Martin, 1997; Livingston & Borko, 1989; Pultorak, 1996). Asynchronous online applications have been recognized as a means of promoting critical thinking (Duffy, Dueber, & Hawley, 1998; Ostorga & Yanes, 2007) and deep learning (Marton & Säljö, 1976). Harrington (2002) notes the value of online structures as a means of fostering students' development, and Weigel (2002) recognizes the potential of online structures to promote what he defines as deep conditionalized learning. Deep learning has been defined as a focused attention to critical analysis of content by linking new ideas to already known principles and concepts. In deep learning, new knowledge can be used for problem solving and real life applications where students become actively interested in the content of the course (Marton & Säljö, 1976). In this study, the use of a guest speaker in an online discussion was one element within the structure of a web-enhanced course. Four of Weigel's (2002) attributes of deep learning are evident in the data collected for this study:

1. Learners relate ideas to previous knowledge and experience
2. Learners examine logic and argument cautiously and critically
3. Learners are aware of understanding that develops while learning
4. Learners become actively engaged in course content.

A discussion of the literature on virtual guest speakers begins with an understanding of effective college teaching. Barr and Tagg (1995) and Fink (2003) make the broader point that university course structures (syllabi, lectures, activities) are means to accomplish student learning. In institutions of higher education, students engage with a range of ideas and people not previously experienced, which is the fundamental purpose of education (Schulman, 2002). In web-based courses, engagement with an expert guest speaker offers students additional learning resources (Boettcher & Cartwright, 1997). The open ended nature of asynchronous dialogue, such as with guest speakers, enables course instructors to facilitate students' construction of knowledge (Hiltz, 1998). In this study, the use of a guest speaker was a catalyst in leading students into deep learning. Through the dialogue, they analyzed the relationships between the issues in the course readings to their own lives and to issues within their communities, which in this case are the same communities where have lived and where they will eventually teach.

The effectiveness of a guest speaker's presence in online dialogue has been documented in numerous studies. Rowe (2004) found that optional open-ended dialogue with expert practitioners offered his accounting students a range of "theory to practice" perspectives that he had been unable to provide in face-to-face course interactions. The presence of virtual guest speakers in Hemphill and Hemphill's online instructional technology course (2007) enhanced students' critical thinking skills and engagement. Kumari's (2001) graduate education students encountered new topics and real life examples of technology integration through online discussions with education technology practitioners, and were excited by the discursive environment. In Wearmouth, Smith and Soler's (2004) study of a postgraduate course for Special Education professionals, the online guest expert highlighted the need for awareness of the politicization of key concepts and terminology in their field. Without the expert's contributions, the students would not have known about controversial issues in the profession and recent shifts in policy and practice. Research about effective online guest speakers finds that they communicate well in writing, are content experts, and actively participate in the online forum (Varvel, 2001).

3. Setting and participants

In this study, the dialogue took place during a weekend near the end of the semester in an ESL Methods course, part of an undergraduate bilingual teacher preparation program in the South Texas borderlands. The 22 students in the course were Spanish/English bilinguals, primarily of Mexican American origin. The university-based course is taken in the third of four semesters of the preservice program. The purpose of the guest speaker was to enrich

students' knowledge about second language acquisition by putting them in direct contact with a celebrated expert in the field.

Since the course made extensive use of the online environment of Blackboard, the students were familiar with web-based navigation, and had Internet access at home. To motivate participation, the instructor placed five full text articles written by the guest expert in a module within the Blackboard course site several weeks in advance, and described her qualifications and reputation in the field of linguistic minority education. In a class discussion that introduced the module, he explained that students' participation would give them a unique opportunity to ask questions of a renowned expert in their field. The articles focused on the linguistic needs of English Language Learners (ELLs) (Fillmore & Snow, 2000; Bielenberg & Fillmore, 2004; Fillmore (2009), the effects of US educational policies on ELLs' academic achievement (Fillmore, 2005), and the loss of primary language (L1) capacity caused by current school practices across the United States (Fillmore, 2000).

Although Blackboard was the platform used for web enhancements in the course, an Electronic Learning Community (ELC) was used for the online dialogue, instead of Blackboard, because it used a superior server and was more accessible for off-campus log-ins. Students were invited to log-in to the ELC if they chose to participate. The ELC also allowed for anonymity in the responses, which was not the case for the Blackboard course site.

4. Guest speaker

The guest speaker in this dialogue was Lily Wong Fillmore (LWF), a Professor Emeritus in the University of California-Berkeley's graduate school of education; and a renowned champion for English Language Learners (ELL), with expertise in second language learning and teaching, linguistic minority education, and the socialization of children for learning across cultures. For more than 35 years, she studied ELLs in school settings. She currently researches the academic language demands of high stakes tests and the instructional support needed by ELLs to deal successfully with such tests and other uses of academic language. LWF is widely known for her research on social and cognitive processes in language learning, cultural differences in language learning behavior, and L1 retention and loss, as well as for her involvement in the revitalization of indigenous languages in the Southwest and Alaska. To motivate participation in the ELC, the instructor shared Dr. Fillmore's professional biography during class.

5. Method

An analysis of the online discussion dialogue was carried out holistically to reconstruct how students collaborated in making meaning from the flow of their interactions. This method was suggested by scholars from three different social science disciplines. Anthropologist Frederick Erickson (2004), in evaluating a transcript analysis, emphasized the value of a "whole to parts" approach, since participants' engagement in the whole discussion mediates their perceptions into the flow of the larger discourse. Cultural psychologist Carl Ratner (2001) explained the value of gleaned discussants' intentions by contextualizing their statements, rather than coding isolated utterances. Marra, Moore, and Klimczak (2004) highlight the need for holistic content analysis in computer conferencing, noting that, to fully understand knowledge construction, raters must discover how coded passages relate to the entire discourse. Therefore the analysis made use of these approaches to situate participants' comments within the flow of the discourse as a whole.

The analysis uses two data sources: the verbatim transcript of the online discussion between 11 students and LWF, and a handwritten retrospective anonymous paper survey administered in class after the online discussion had closed. In both sources, students used self-created pseudonyms to protect their anonymity. The survey sought student feedback on what they felt they had learned from the discussion, and their evaluation of the dialogue. Discussion postings and responses to survey questions for each participant were grouped by topics for a more in depth analysis of each student's interactions and meaning making process. Then each posting or question response was coded according to the attributes of deep learning outlined by Weigel (2002).

6. Analysis and discussion

In the online dialogue, student participants took the opportunity to ask questions with the intent of seeking a deeper understanding of the content, especially with regard to the complexities of theoretical applications within the sociopolitical context of public schools in the South Texas region. They approached the discussion from the perspective of their lived experiences in the region's Mexican and Mexican-American cultures, the cultures that influenced the schools they had attended and where they would eventually teach.

Through the online discussion, students engaged in processes that were both cognitive and affective. First, the discussion provided a space for them to examine theoretical and methodological applications in the local schools, a cognitive process. Additionally, the guest speaker afforded them the opportunity to explore the dissonances between their values and the realities they encountered in local schools. For these students, many of them immigrants or the children of immigrants, the process was one of forging their teacher identities by differentiating and integrating their personal and professional values, an affective process. What follows is an analysis of the online discourse and the retrospective survey to identify four of Weigel's (2002) attributes of deep learning.

6.1. Learners relate ideas to previous knowledge and experience

Students used the online discussion to critically examine the knowledge they acquired from the course readings. Analysis of the dialogue revealed that one way to do this was by questioning the practices they observed in the field in relation to the guest speaker's articles. Such questioning is evident in Super Star's posting:

"Why is [it] that in bilingual programs and some veteran teachers ...[state] math should be taught in English for the English Language Learners? Math is not a universal concept that students can just transfer from Spanish to English or is it? I'm just confused with what subjects should be taught in English and Spanish for the English Language Learners. What is the theory or research suggesting as far as what subjects should be taught in English vs. Spanish? Based on your article "The English They Need for the Test" you provided an exampleWith that in mind how can we, as future teachers make a difference in helping English Language Learners understand math if having to teach math in English?"

This comment illustrates how students sought explanations for the contradictions between theory and practice. Current accountability policies placed on schools and teachers have led South Texas school administrators to narrow teaching practices to those deemed helpful in raising standardized test scores. The students in this university course saw the interaction with a guest expert as an opportunity to seek her opinion and perspective on what they saw as inconsistencies between the field experiences and the course readings. Another example of this type of questioning was made by Pocahontas:

"Here at the college of education, we are taught the learner-centered instruction way of teaching. Unfortunately, in our field experiences we have observed many teachers teaching in the behaviorist method (teacher-centered). In discussions with our mentor teachers some responses are that there is no time to do hands on activities and it (the teacher-centered approach) is more convenient and effective in regards to the children's behavior. One particular comment was that when we start teaching "in the real world" we will not be able to use the methods/techniques we were taught. I was a bit discouraged to hear that comment coming from a teacher with experience.... What suggestions do you have ...?"

The guest speaker answered such questions by presenting her knowledge of the sociopolitical factors that impact the decisions made by school administrators and teachers and how these decisions affect the linguistic and academic development of students in bilingual settings. As part of her responses to the group, she posted a power point presentation she had made (Fillmore, 2008) that explained current US immigration and language policies. A particular slide in the presentation, a photograph of the border fence, deepened students' understanding of how governmental policies impact linguistic minority communities and local school practices. This was particularly meaningful to the participants since most of their local schools and communities are within 10 miles of the US-Mexico border. The power point's impact is illustrated by Mariquita's statement:

“Seriously, that was the first picture I’ve seen of the border fence and all I can say is wow. I know it was happening, but I hadn’t seen it yet so it hadn’t really affected me...”

Further into the posting, Mariquita made connections between her new knowledge and local teaching practices. These postings highlight how the dialogue with the guest speaker opened a space for students to seek answers to questions arising from the dissonance between their readings and the realities of the local schools, which led to deeper learning of the course content. The dialogue allowed for learning to go beyond the simple memorization of specific methods and into the sociopolitical factors that create unexpected complexities that inhibit the proper application of these methods. The discussion also guided students to examine how to apply the learned methods within the constraints and limitations found in the schools. As students sought answers to their questions, they critically and cautiously examined their new knowledge.

6.2. Learners examine logic and argument cautiously and critically

Another attribute of deep learning identified in the literature is the evidence of cautious and critical examination of arguments in the content learning. This attribute calls for learners to make use of evaluation and judgment in their meaning making process, a high level of critical thinking. The above examples from the online dialogue illustrate that students used their interaction with the guest speaker to examine the logic in the way methods were applied by asking for her position in areas where they saw contradictions between theory and practice. Participants’ questions demonstrate a high level of critical thinking focused on why these contradictions were present in the field and how they could address issues of practice in the presence of these contradictions. These types of questions reflect a high level of judgment on the part of the learner, as evident in the following posting:

“My question is regarding your article "ELL's Caught in the Crossfire" and is regarding the high school students in the unnamed California school district. I was appalled when I read that high school students were subjected to being taught using a remedial phonics program that was “regarded as too low a level even for second graders.” My question to you is, who formulates these programs? Who decides what programs we use in schools? Why do schools use programs like the one used in high school X? It is clear to even myself, that this type of instruction would yield inadequate results, do these people have any formal training in effective practices in education?”

One example of how a student engaged in the critical examination of teaching practices involves the explanation of her own decisions that went counter the practices expected of her by her superiors. She explains her reasoning and asks the guest speaker, as an expert, to evaluate her judgment.

“I worked teaching EFL in Mexico... I only spoke English. Many of the children were still in the silent period of language production. ...One technique my supervisor wanted me to use was to pretend NOT to understand the children when they spoke in Spanish to me. However, my instinct led me to allow the children to interact with me in their native language. I would speak in English and respond to the students in English (sometimes VERY scaffolded with mime, gesture, etc.) but I felt that if they were responding to what I had said in English, then they were understanding the input. I thought that it was more important for the relationship to develop than to force them to parrot phrases they didn’t understand. I wanted to allow the children to respond however they felt comfortable as long as they were engaged in the lesson and participating!! I would be very interested to hear your perspective on this issue.”

This example also required the participant to make use of judgment. In this case, she asked the guest speaker to evaluate her own actions instead of judging those of others. It is notable that the guest speaker managed to create a safe environment where students felt free to express their doubts and solicit evaluations of their actions. Her response to students postings often began with words of encouragement and positive feedback such as: “Your question is a very important one”, “thank you for becoming a teacher--not the most lucrative career in the world, but without question, the most critical to the future possibilities of a lot of kids.”, and “It has been my pleasure to interact with you and your class this way, to read your concerns and comments, and respond to your questions.” She was very personable and shared her own experiences as the child of immigrant parents. She also promoted critical dialogue by expanding students’ knowledge with new information that would enrich their understanding of the

topics discussed exemplified by the posting of her power point presentation on immigration policies and globalization.

6.3. Learners are aware of understanding that develops while learning

Evidence of students' awareness of their development of new understandings through the online dialogue is found in the retrospective survey. Two days after the online discussion, participants completed an extended response survey that led them to reflect on the activity. Among the questions they answered was "What did you learn from your participation in this activity?" Their responses illustrate the students' level of awareness of their construction of new knowledge. One explains how the activity pushed her into thinking at a deeper level about what she read:

"I learned to think outside the box. It was difficult to think of questions that were relevant to me and what L W Fillmore wrote about in her articles. It was interesting to see what other ideas other people had and their take on her articles."

This student was very active in the online discussion and asked questions that included a high degree of judgment about details of practice. Although she found it "difficult to think of questions that were relevant..." she did ask important questions that helped her make meaning of the reading in a more personal way and contributed to the development of others who saw her questions and comments.

For some students, the dialogue led to an understanding of the content at the very profound level of its relationship to their own lives, as exemplified by this response:

"I learned actually about the politics and history that have affected bilingual education. I learned about others that have been affected by the injustices from our "land of opportunity." I actually learned and felt more of a connection to my feelings of being proud of who I am as a Latina."

Some students demonstrated affect when evaluating their learning experience, which is an encouraging outcome since positive emotion aids in cognitive engagement:

"This was TOTALLY AWESOME! I learned that loss of [the] ... first language [and] could destroy families..."

Students' comments suggest that the online discussion environment expanded their awareness of concepts that were important for their professional development. The guest speaker motivated students' interest in the discussion as a whole, and broadened their awareness of important knowledge beyond the immediate scope of the course. Furthermore, the meaning making process was also the result of an affective process since it included an analysis of personal values and beliefs.

6.4. Learners become actively engaged in course content.

Students were invited to login to the ELC if they chose to participate. Because of the guest speaker's tight schedule, the ELC was not available until near the semester's end, when students were busy completing projects for other courses. The retrospective survey responses revealed that this condition prevented participation by half of the class. Nevertheless, since participation was optional, the fact that eleven did participate suggests their strong motivation based on an interaction that was meaningful and significant to their professional concerns. An example of active participation can be implied by the presence of student-to-student response as exemplified in the following response posted during the online discussion:

“When I read your post Mariquita, I am thinking – ‘how can we (or I, if you don’t want to be part of the boat-rocking...) stir up this generation of teachers to be activists?’ Because I have heard teacher after teacher tell me what they wish they could do and say that what they HAVE to do is WRONG. Yet no one stands up to truly defend the CHILDREN, who are the ones suffering. Our children!”

Many of the responses clearly demonstrate how participants became actively involved because they made personal connections to the content of the discussion. This connection was often based on their genuine desire to become effective teachers. However, in some instances the connection was on a personal level related to their identities as Latinos. One example of this type of personal connection is evident in the following posting:

“...many people had said that because of the hardship of living in the United States, they do not teach their children their native language (Spanish and so on). You are definitely right, my children are the third generation in the family and they only speak English. my children were missing out on part of their culture, my culture. Now my priority is teaching them what I should have considered their native language, Spanish. What advice would you give parents like me that made the mistake of denying our children their native language?”

7. Conclusion

The analysis of the discussion and students’ survey reflections suggest that participation in the online environment and LWF’s intervention in the brief asynchronous discussion allowed for deep learning to occur, and contributed to students’ professional and personal growth. In particular, the analysis reveals that the learners displayed four attributes of deep learning as defined by Weigel (2002) by: a) relating ideas to previous knowledge and experience, b) critically examining the logic of the concepts learned, c) becoming aware of their growth and development as it occurred, and d) becoming actively engaged in the course content by relating it to their personal lives.

The guest speaker, played an exemplary role, as described in the literature on guest speakers, by motivating student engagement and expanding their awareness of important topics absent from the course and the teacher preparation program. It seems safe to conclude from this two day experience that an online dialogue with a guest speaker who has genuine expertise and a willingness to engage with students on their own terms can strengthen the effect of a university course on students’ professional preparation. The space created by the online discussion with an expert who is passionate about the topic can augment students’ intellectual development and critical awareness, taking them far beyond a shallow knowledge of the course curriculum. These are important aspects to consider in choosing virtual guest speakers. It is evident from the data that the speaker was able to connect to the students’ by allowing for the creation of a space where meaning making was a function of both cognitive and affective processes. On the cognitive level, students critically examined sociopolitical issues and how these connected to the principles learned through assigned readings. In addition, the space allowed for learning to occur through an affective process as students examined their values and beliefs.

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