

Tutor Interaction in the Online Environment: An Assessment of e-Tutoring Support in Blended Learning

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Abstract

In the academic year 2005–2006, UWIDEC shifted its delivery mode from a predominately synchronous mixed mode (or blended learning model, as we now know it) to an asynchronous model. This shift was necessary to ensure the broader reach required for UWI to further its mission of unlocking the potential of the Caribbean region.

Tutorial support has always been an integral part of UWIDEC's delivery mode, providing not only content support but that vital human interface needed in distance learning. In transitioning from face to face to e-tutoring the challenge therefore lay in addressing a mindset on the part of tutors and students more accustomed to a 'teaching' mode than a facilitative one. To effect the transition, a series of training workshops for tutors was held in the three campus countries. The workshops aimed to reorient the skills and attitudes of tutors and introduce them to the use of the learning management system.

This paper reviews the performance of UWIDEC's e-tutors. Against the background of established best practices and the guidelines laid out within UWIDEC, we will apply conversation theory and an analysis of particular linguistic structures to investigate tutor interaction with groups and assess the effectiveness of their performance in improving learner competence in critical thinking and problem solving.

INTRODUCTION

The University of the West Indies' involvement in distance education formally began in 1983 when it started offering courses using an audio-teleconferencing system in what was then considered to be a "distance teaching experiment" known as UWIDITE. In 1996, in a bid to improve the quality of its distance education offerings and provide greater access to education in the region, the University amalgamated its distance education initiatives into the University of the West Indies Distance Education Centre (UWIDEC). A variety of distance education methodologies have traditionally been used to offer the programmes delivered through UWIDEC. These include course coordinator-facilitated teleconferences and self-study texts supplemented by tutorial support either at the local level or via the teleconferencing system. UWIDEC's delivery mode was clearly synchronous, relying heavily on real-time contact between course coordinator, tutor and student for interaction. The tutorial support, in addition to providing content support, also provided that vital human interface needed in distance learning. Accelerated by scheduling problems resulting from increased student numbers and programmes, in the academic year 2006–2007, UWIDEC shifted its delivery mode from a predominantly synchronous mixed model to include asynchronous interaction in a blended learning model. This shift was also necessary for ensuring the broader reach required for the UWI to further its mission of unlocking the potential of the Caribbean region. This paper examines some tutor-student online conversation patterns in order to determine which ones lead to meaningful learning.

THEORETICAL FRAMEWORK

Learning is the expected outcome of communication, which is central to the education process. Sharples (2005) views learning as "a process of 'coming to know' by which learners in cooperation with peers and teachers, construct transiently stable interpretations of their world," representing a constructivist approach to learning. He points out that this theory does not distinguish between people and interactive systems such as computers and is therefore applicable equally to "human teachers and

learners" as well as "technology-based teaching or learning support systems". Sharples elaborates on learning as "conversation in context", based on Gordon Pask's elucidation of conversation theory. According to Sharples, Pask reconceptualized communication from being "the exchange of messages through an inert and transparent medium" to an activity in which "media are active computing systems within which mind-endowed individuals (people and intelligent systems) converse". For Scott (2001, pp. 3-4, 6), conversation theory as espoused by Pask can be seen as a theory of learning and teaching in which the teacher wishes to "expound a body of knowledge" to the student. The theory assumes that humans need to learn. Humans construct symbolic representations, subject to various constraints. Narrative forms are constructed and exchanged in conversation and what is memorable can be taught back through demonstrations and explanations of "how" and "why".

The theory has been expanded by various writers, including Laurillard, who has applied it to learning conversations in the higher education environment (Scott 2001, p. 6). Laurillard has devised a "conversational framework" which, while recognizing the domain of descriptions, conceptions and misconceptions (how and why), distinguishes a domain of tasks, where learners engage in learning activities that generate a product or outcome. The learner receives feedback about the quality of the product he or she has presented. The teacher must adapt tasks to fit a learner's level of competence. The conversation continues with further exchanges and tasks and feedback and further discussion. Sharples (2005) notes that in order to "engage in a productive conversation, all parties need access to a common external representation of the subject matter (an agreed terminology, and also notes, concept maps or other learning resources) that allows them to identify and discuss topics". In applying this to the field of education, Sharples refers to learning as a continual conversation with oneself, with the external world and with other learners and teachers. Technology in the form of computer or communications technology may be the partner in the conversational framework (Sharples 2005). By itself, however, it is limited in its capabilities as it cannot hold a conversation. Technology is therefore seen as providing the environment and tools, "a shared conversational space" that is useful for individual learners as well as learning groups and communities. However, Sharples maintains that the value of technology such as discussion forums and VLEs is limited because they cannot support the full range of conversation.

Klemm (2002) elaborates on this last point, stating that discussion boards, by the way they organize messages or postings, limit the manipulation of messages in their context. He also believes that the "threaded-topic discussion-board environment commonly encourages people to express mere opinions" (p. 2) and that the purpose of online discussions is often unclear and expectations are vague. While making these observations, however, Klemm underscores the fact that the asynchronous environment facilitates reflection, the gathering and organization of information, and clear and coherent responses. He advocates specifying "devices" that can result in greater engagement by students in online discussion. While categorizing conversation as monolog, dialogue, dialectic or construction (design) (p. 3), the similarities with Pask, Scott and Laurillard's perspective are clear; this is especially so in the construction category, which specifies that conversation must be used to create some sort of "deliverable", similar to Laurillard's task.

Gilbert and Dabbagh (2005, p. 6) report that studies on the instructional benefits of asynchronous online discussion indicate that the structure of an online discussion impacts the quality of the discussion. They discuss how the online environment can support meaningful discourse, which is described as "a process of collaboration and social negotiation where the goal is to share different viewpoints and ideas and collaborate on problem solving and knowledge building activities". The environment is said to support articulation and reflection, which allow students to make inferences by generalising their understanding and knowledge so that it is applicable in different contexts (Collins, 1991 in Gilbert & Dabbagh 2005, p. 6).

Stephen Brookfield (1986, p. 139), speaking from a face-to-face context applicable to the online situation, sees the discussion method, essentially conversation, as

particularly suitable for teaching adult learners and “the development of adult learners’ critical faculties”. He considers a successful discussion session one in which participants “pursue certain cognitive ends”. Online conversations using discussion boards offer the opportunity for students to construct meaning. With regard to regular participation in discussion forums, Sherry Markel (2001) observes that this is a means of negotiating and constructing knowledge and “an example of using the technology as a cognitive tool and not simply as another kind of blackboard or one-way communication method.” To maximize the possible benefits of the online environment, the tasks or activities must be clear, organized, and accurate and, as Hazari and Schnorr (1999, as cited in Markel, 2001) advise, “problem oriented, interactive, and [must] engage students in an application of knowledge, principles, and values.”

The constructivist quality of discussion forums as learning tools allows time for reflection before posting a response. The act of writing is itself a reflective tool as years of research and practice in the fields of education and psychology bear out. The discussion forum adds the dimension of collaboration and feedback from within and outside their group. Tutors and students are thus engaged in building more meaningful learning. Markel (2001) points to four aspects of the tutor’s responsibilities which emerge in the online environment: greater emphasis on the tutor as a participant with decreased emphasis on his/her input; sensitive pulling together, managing, and balancing of the threads of the postings; timely, specific and personal feedback; commitment to the additional time required for monitoring and responding to postings and emails.

E-TUTOR INTERACTION IN THREE COURSES

In transitioning from face to face to e-tutoring UWIDEC’s challenge lay in addressing the traditional mindset of the tutor as “teacher” and transforming it to that of “facilitator”. A series of training workshops for tutors was held in the three campus countries. These workshops aimed at reorienting the attitudes of tutors and introducing them to the use of the learning management system, Moodle, and the competences that would be needed in this new environment. To provide reference and support material for e-tutors, the manual “Guidelines for the UWIDEC Tutor” was prepared. It outlines the skills needed for online tutor-student interactions. In addition to the training workshops and the manual, detailed minimum requirements in relation to the quality and quantity of online interaction activities and time allotments were included in the contractual requirements for e-tutors. This provides a structure which allows the e-tutor to make an easier transition from the traditional classroom to a virtual one.

Our examination of tutor-student online interaction begins with samples of exchanges taken from three undergraduate courses: Guidance and Counselling in Education (ED33N), Introduction to Cost and Management Accounting (MS15B) and Management Information Systems II (MS31B). Students responded to clearly defined tasks they had been given. We looked at how the e-tutor facilitated the students’ “coming to know” to see to what extent e-tutors used the skill sets highlighted in the tutor’s manual: listening and responding skills. As an effective listener, the e-tutor is expected to use such skills as reflection or mirroring, open-ended questions, acknowledgements, and silences. In responding, the e-tutor should clarify, check, contextualize, conceptualize, challenge and build consensus. These are the skills we encourage our e-tutors to display in their online interactions with students in order to move them beyond mere expression of opinions to critical thinking skills.

Samples of Conversation Patterns

1. MS31B: Short answer question on Context and DFD

Student: i seem to have problems understand e.g. List the data flows to and from the entity, Travel Agency (from the point of view of the airline). should i use the airline as the process because i know the entity is travel agency and should i only use the data flow from the airline to the travel agency and vise versa?

E-Tutor A: You are perfectly correct in your reasoning.... Anyway seeing

that you suggested that you had problems understanding, I will attempt to make it clearer...

The question said: "List the Data Flows to and from the entity, Travel Agency (from the point of view of the Airline)"...DFDs (Context Diagram and Decomposition Diagrams) are normally drawn from some perspective or some point of view. Whichever diagram is drawn, the number of data flows to and from any specific entity is always the same. In the event of the Context diagram, the process would be that used for the airline. For the Decomposition diagram, it would be that same process for the airline that would be decomposed into 2 or more sub-processes....You are therefore correct in both of your questions/points: You should use the airline as the process because you know the entity is travel agency and you should only use the data flows from the airline to the travel agency and vice versa.

Student: thank you, Tutor A, i am clearer now and i will attempt the questions again which focus on these points to see how clear i am.

In this exchange, E-Tutor A affirms the student's efforts and restates the problem (reflection or mirroring and clarifying). This serves as a visual reminder as the problem is revisited. Next he explains how to approach the problem (conceptualizing). Before ending his posting, he once again affirms the student's efforts. The student's response signals that the posting helped her to have a better understanding of how to tackle the assignment. An important aspect of the exchange is the e-tutor's affirmation of the student's efforts at the opening and end of the conversation.

2. ED33N: Assignment to design a questionnaire

E-Tutor B: (Response to Student 1's submission): This is quite an interesting pair of closed-ended questionnaires. They will certainly be easy to administer and relatively easy to collate depending on the sample size chosen. ... Had you thought about how the questionnaire would be distributed and how you would sample your students and if you would sample your teachers or whether you would simply survey all the teachers?

Student 2: [Responded with a description of her questionnaires.]

E-Tutor B: Would you consider testing it on a small group and including a few open-ended questions in case you are some how missing the real problem? ...You've certainly given this some thought, Student 2. This seems like a good approach.

Student 1: Sorry about the typing errors but I was typing fast and did not take time to read over. I'll try to avoid such mistakes in the future.... Now about your questions about open ended questions - certainly I would include a few. Here are a few examples. [Gives examples of questions she would add to her questionnaire and explains how she would administer it.]

E-Tutor B: This is good work, Student 1. You have really been sitting down and thinking about the problem. When you say randomly, do you mean a completely random sample or were you thinking about a stratified sample (ie selecting some students from each year group)? You and Student 2 would benefit from reading each other's posts.

In this exchange, the e-tutor identifies the good points about the student's submission and poses a question to get the student to extend herself (challenging). In her second posting, she continues with another challenging question and affirms the student's efforts. In her final posting there is more encouragement of the student and, as before, a question to take the student forward. The series of questions helps the student to reflect on her work and in the process, to construct her own meaning in respect to developing the questionnaire (open-ended questions, contextualizing, challenging). She encourages the two students to learn from each other's postings; an acknowledgement that the e-tutor is not the sole source of learning in this environment.

3. MS15B: A case study assignment

E-Tutor C: I must commend most of you for actively taking part in the

introductory activity and for attempting the quiz.... It is also good to see that most persons are accessing their course materials online. I hope that you have all attempted the case study problem. If you have, let me know what your results are, so that I may provide you with feedback as to whether you are on the right track...For those who may be experiencing difficulties, you may want to try this approach to the question: 1. Prepare the Trading Profit and Loss Account Section. Start filling in what is given, then calculate Gross Profit. What is this figure? 2. Find the figure for Finish Goods. What is this figure? 3. After you determine the figure for Finish Goods you would be well on your way in completing the Trading Profit and Loss by simply finding the figure for Cost of Goods Manufactured. What is this figure? 4. Now you have the figure for Cost of Goods Manufactured, you can prepare the Manufacturing Account.... I am anxious to hear your results.... Looking forward to seeing your postings soon.

Student 1: Case #1 - my answer - please correct me! Student then gives workings.]

E-Tutor C: Dear Student 1, You are on the right track!...The question stated that gross profit was 30%. Re-calculate your gross profit figure, then let me know what your finish goods figure is after you adjust the gross profit. Looking forward to seeing your result.

Student 1: my result is: [Student gives workings and acknowledges the source of her error.]

Initially, I said the GP would be computed as $30/130 * 1,7M$...guess I was wrong.

E-Tutor C: Hi Student 1, Well done! I am proud to see you participating like this. Your figures are correct. Attempt the questions on Inventory Control now.

E-Tutor C: Hi Student 1 and other members of this group. Have you calculated gross profit? What is your figure? [Suggests additional formulae.] How do you find Ending Finish Foods?

Ending Finish Foods = ????

Student 2: Sorry I took so long took so long to post my answers. [Gives workings.]

E-Tutor C: Dear Student 2, Good attempt. How did you arrive at these figures? The Direct Materials and Work In Progress figures are okay. Use the formula that I suggested to Student 1 to arrive at Finish Goods: [Refers student to formula in text] I suspect that you have calculated your gross profit incorrectly. ...Gross Profit = 30% of Sales...Try again and let me see your workings.

Student 3: Here are my responses: [Gives workings.] This case is very challenging so please help us to figure it out.

Tutor C: Dear Student 3, You have calculated the cost of ending finished goods correctly. Well done. You may use the following formulae to solve the case: [Gives formulae]

If you follow the formulae I suggested then you should be able to solve the case. Let me know your results. Best wishes.

Student 3: Thanks for the help with the formulae. I used the manufacturing account and worked backwards, based on the information available. [Gives workings]

Tutor C: Dear Student 3, this is great. You have done very well. Your answers are correct.

The e-tutor in this third exchange starts by congratulating the students on their participation so far. She encourages them to contact her with their results so that she may give feedback, an important element in conversation theory. She then suggests one method for approaching the assignment. She constantly praises the students' efforts and suggests additional formulae for tackling the case. By so doing, she helped the students to better understand the nature of the problem and the solution (conceptualizing). The responses of the three students together form a developmental thread showing the cognitive process of arriving at the correct answer.

DISCUSSION

These three conversations depicted three categories of conversation used to facilitate learning. The e-tutor posted the discussion topic or assignment but the student initiated the discussion by bringing a problem to the e-tutor's attention. The lessons emerged out of the student's need. In sample 1, the e-tutor responded to a simple appeal for help in answering a question. The e-tutor gave guidelines for understanding the question in context thus encouraging the student to continue working. Sample 2 showed the power of guided questioning on the part of the e-tutor. On submission of the assignment, the e-tutor used questions to direct the students in seeking their own answers. Sample 3 involved a case study for a quantitative course so this entailed the e-tutor helping to reinforce the steps needed for arriving at the solution. The e-tutor suggested an initial approach for those having difficulty getting started. With each of the three students, she tailored her responses to identify the flaws in their workings and guided them from that point to the next step in arriving at an understanding of how to continue. By the end of the conversation, the entire procedure for completing the case study had been reinforced.

The samples demonstrated a problem-feedback conversation loop in action. The problem-solving was dealt with in the context of the students' experiences. The tutors began where the students were cognitively located and supported them in moving beyond this point. Sample 1 used an explanation to build on what the student already knew to help her to arrive at an understanding of some aspect of the assignment. Sample 2 used guided questioning to help the student refine her answer. In sample 3, scaffolding was used to help the students to critically assess their procedures as they worked through increasingly difficult levels of the problem.

We found that our tutors employed conversation building techniques in addition to the skill sets enumerated in our manual. These further facilitated productive conversations, which demonstrated the students' negotiation and construction of meaning. In particular, the tutors' use of affirmations or praise along with the students' names when addressing them strengthened the participatory bond. This helped to establish a non-threatening and supportive relationship with the students, which led to greater confidence in their ability to grapple with the subject matter.

Our analysis of tutor-student interactions found that two of the four tutor roles outlined by Berger (1995, cited in McPherson and Nunes, 2004), the pedagogical and the social roles, were particularly descriptive of what we ask of our e-tutors. The managerial and technical roles, while expected of the e-tutor to differing degrees, are not solely embodied in him/her as UWIDEC's team approach to course delivery provides additional learning support for students.

CONCLUSION

As we continue to map the profile of the ideal e-tutor's online performance, we will be able to refine our tutor selection process, training programme and evaluation. With continued research, we expect that patterns will emerge that give us further insight into the online learning experience. This will no doubt have implications for instructional design as we attempt to ensure that learning is meaningful for all our students.

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