ABSTRACT

This paper aims to evaluate how an undergraduate program’s distance tutors see interactivity and how their views relate to their specific distance education training and tutoring practice. In order to understand this problem, a survey was sent to distance tutors working in programs that train future biological science teachers at public institutions offering distance education undergraduate programs in the state of Rio de Janeiro. Twenty distance tutors answered all of the questions in the survey, comprising a total of 12 different courses. After analyzing the distance tutors’ answers, we concluded that high academic training may not necessarily mean one has specific knowledge about Distance Education-related aspects, and that specific distance education courses are important to better train tutors as promoters of interactivity.

Keywords: Distance education. Interactivity. Training.

RESUMEN

Este trabajo tiene por objetivo evaluar la concepción que los tutores a distancia de un curso de grado tienen sobre la interactividad y la relación de esa concepción con su formación específica en EaD y con su práctica de tutoría. Para poder comprender ese tema, se envió un cuestionario a los tutores a distancia del curso de profesorado (Licenciatura) en Ciencias Biológicas de un consorcio de instituciones públicas para la oferta de cursos de grado en la modalidad EaD del estado de Río de Janeiro. En total, 20 tutores a distancia respondieron a todas las preguntas del cuestionario, siendo que la muestra contempló un total de 12 asignaturas diferentes. Por medio del análisis de la respuesta de los tutores a distancia, este estudio puede concluir que una alta formación académica puede no representar, necesariamente, un conocimiento específico sobre aspectos relacionados a la EaD y que cursos de formación específicos sobre Educación a Distancia son importantes para una mejor formación de los tutores como promotores de la interactividad.

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**Palabras clave:** Educación a distancia. Interactividad. Formación.

**RESUMO**

Este trabalho tem como objetivo avaliar a concepção que os tutores a distância de um curso de graduação têm sobre interatividade e a relação dessa concepção com sua formação específica em EaD e com sua prática na tutoria. Para poder entender esta problemática, foi enviado um questionário para tutores a distância do curso de Licenciatura em Ciências Biológicas de um consórcio de instituições públicas para oferta de cursos de graduação na modalidade EaD do estado do Rio de Janeiro. Ao todo, 20 tutores a distância responderam a todas as perguntas presentes no questionário, sendo amostrado um total de 12 disciplinas diferentes. Através da análise da resposta dos tutores a distância, o presente estudo pode concluir que uma alta formação acadêmica pode não necessariamente representar um conhecimento específico sobre aspectos relacionados à EaD e que cursos de formação específicos sobre Educação a Distância são importantes para uma melhor formação dos tutores como promotores da interatividade.

**Palavras-chave:** Educação a distância. Interatividade. Formação.

1. **INTRODUCTION**

With the advent of information and communication technologies, the relationship between teachers and students is given new possibilities in Distance Education (DE) as they do not need to be in the same room for a stimulating, interactive teaching and learning environment to be set up (MEDEIROS et al. 2010). Therefore, DE brings about new roles for teachers and students. Teachers are no longer the ruling, knowledge-holding figure and the focus is shifted to students (OLIVEIRA, 2003). In this backdrop, students have great responsibility over their own learning. In other word, unlike in conventional on-campus education, students in online or semi-online programs are advised to use all learning resources available in the most collaborative manner possible. Combined with flexible hours, that requires even more time management, dedication, and self-discipline from students. Hence, in addition to new teacher and student roles, a new, essential character emerges in DE, i.e. the tutor, who will be directly monitoring the students and helping them learn.

Therefore, tutoring is paramount in online programs. Consequently, in addition to an academic education in tutors’ fields, they must also master important topics related to education at large and distance education in particular. In this backdrop, according to important DE researchers (e.g. MORAN 1995, LEVÝ 2001, PETERS 2001), interactivity, autonomy, and affectivity are three important aspects to be considered when putting together a tutoring model. All tutors must have a solid theoretical and practical background regarding these aspects so they may better play their role in mediating students’ learning. As a general rule, understanding tutors’ role in DE and how their relationship with students should be is essential for the knowledge building process to be effective and consequently help lower dropout rates and enhance the quality of this type of education.

Topics which have been frequently discussed include the tutors’ job and the new roles they are taking on nowadays (e.g. JAEGGER & ACROSSI 2005, PAIANO 2006, LEAL 2004, MEDEIROS et al. 2010), considering their duties have been changing from what they originally were. For instance, Jaeger & Acrossi (2002) highlight that tutors’ original role was basically related to supporting teachers, answering content-related questions, and monitoring the activities. In addition to the aforementioned duties, the latest viewpoint on tutors’ role includes new responsibilities, behaviors, and skills regarding...
teaching and technology approaches, such as: greater understanding of the DE learning process; acknowledging affectivity is important in their relationships with students; coming up with autonomy-developing strategies; and increasingly using virtual learning environments and their interactivity possibilities (MACHADO & MACHADO 2004, OLIVEIRA 2009).

Then, by taking on these new responsibilities, Leal (2004) says tutors would become distance educators as they choose contents, discuss learning strategies, go over knowledge, set up dialogues with students, and mediate learning problems. Therefore, Distance Education requires a review of learning concepts, knowledge, and techniques to make the most of technologies and tools, as the complexity of teaching is more clearly seen in DE than in face-to-face education (MEDEIROS et al. 2010).

An aspect that takes on major relevance is the ideal training for distance tutors. According to some authors (e.g. LEAL 2004, PAIANO 2006, MEDEIROS et al. 2010), the theoretical bases for tutors’ initial training must be the same as for face-to-face teachers, including a solid academic background in their field of work and also classroom experience. Additionally, their training must be added specific knowledge and skills necessary for them to perform their duties, which involve using technologies and teaching strategies to mediate, monitor, and evaluate students’ progress in a virtual learning environment.

Distance tutors are considered the main link between students and online course contents. That is why the interactivity between tutors and students is extremely important for building students’ knowledge and autonomy. Evaluating distance tutors’ efforts to foster interactivity is relevant in order to suggest improvements to both online tools and training in this type of education.

In this backdrop, the purpose of this paper is to evaluate how distance tutors in an undergraduate program see interactivity and how their approach relates to their specific DE training and tutoring practice.

2. METHODOLOGY

The instrument used in this study was a self-applied questionnaire containing semi-structured questions and available from the forms tool on the Google Drive website (http://drive.google.com). Data were analyzed using the Microsoft Excel 2007 software. The questionnaire (annex 1) was sent to distance tutors in the biological sciences teacher licensure program at a school offering semi-online undergraduate programs in the state of Rio de Janeiro. In addition to examining the tutor’s academic background and specific knowledge of the field of technology, the purpose of this questionnaire was to understand how they see interactivity. The questionnaire had a total of nine questions, seven of them closed-ended and two open-ended.

The questionnaire was sent to distance tutors on May 19, 2012, and remained available to be answered until May 30, 2012. All tutors answering the online questionnaire signed consent forms which are in the possession of the first tutor listed as an author of this paper. By the deadline, 20 out of the program’s approximate total of 90 distance tutors had answered all questions in the questionnaire, from a sample totaling 12 different courses. The number of distance tutors varies each term, given the tutors’ hours are directly related to the number of enrolled students.

3. RESULTS AND DISCUSSION

The average age of tutors was 31 years (the youngest was 23 and the oldest, 47 years), 70% of them female. Regarding their academic background, 80% of tutors held a Master’s degree and 50% of them
held a doctoral degree or were pursuing one (Figure 1). Regarding a tutor training course in Bahia, Souza and collaborators (2007) reported that more than 60% of tutors held or were pursuing a specialist's degree, which shows the tutors sampled in this study boast high academic backgrounds, comparatively. However, considering distance tutors’ role goes beyond academic contents to motivate and conduct the learning process (BATTISTI et al., 2011), one’s academic background may not be the sole factor indicating a DE tutor’s teaching potential.

Figure 1: Academic background of distance tutors (n=20) in a semi-online biological sciences teacher licensure program in the state of Rio de Janeiro, from a study conducted between May 19 and 30, 2012.

In order to learn more about the education of distance tutors sampled in this paper, a specific questionnaire item was included asking about the tutors’ specific DE training. During the study period, the school at hand was in the process of training the longest-serving tutors. That is why closed-ended questions were asked which tutors were able to answer not only whether they had had specific DE training but also whether they considered such training important for distance tutors. Answers to the item asking about DE training are summarized in figure 2. Most tutors in the sample had already completed or were attending a specific DE training course (14) and a good number of them (7) believe such training to be essential for distance tutors. At the same time, approximately 30% of tutors answering yes chose option S1, meaning they were driven to train specifically in DE only after a request from the program/tutoring coordinator. This piece of information shows that a significant number of tutors, despite having trained in DE, do not realize such training is important for their work in distance programs. Considering those tutors who are yet to train in DE, most
of them (67%) answered they intend to take a specific DE training course because it would be important for their education (option N1). Only two tutors chose answers in which their motivation would stem merely from a program requirement or that such training would not be essential for distance tutors (options N2 and N3).

Figure 2: Frequency of answers by distance tutors (n=20) in a semi-online biological sciences teacher licensure program in the state of Rio de Janeiro to the question: Are you attending or have you completed any specific DE training course? N1: No, but I intend to because I believe it is important for my education; N2: No, but I intend to because it may become a requirement; N3: No, because I do not believe specific DE training to be essential for tutors; S1: Yes, but only because I was asked to by the program/tutoring coordinator; S2: Yes, because I believe it is essential for tutors to be specifically trained in DE; S3: Yes, because I believe it may be important for my education. Study conducted between May 19 and 30, 2012.

Based on the DE interactivity concepts advanced by Amaral & Rosini (2008) and Capelari & Barros (2008), the answers to the open-ended question “What does interactivity mean to you?” were divided into right and wrong. Exactly 50% (10) of tutors had their answers considered to be right, because they included information exchange and/or two or more people connecting through the use of specific tools. Below is an example of a correct answer:

“To me, interactivity is communication among the various people involved in DE and which is enabled by education tools in VLEs”

Tutor 19.

Basically two groups of mistakes were found among tutors whose answers were deemed “wrong” (50%): tutors who believed only the tools could enable interactivity in DE programs, and tutors who believed interactivity takes place along a one-way street between tutors and students. Below is an example of an incorrect answer mentioning only the tools:
“Use of different media (internet, videos, telephone)”

Tutor 14.

This type of answer shows some tutors are yet to realize they play an important role in fostering interactivity. Capelari & Barros (2008) tell us that tools should be the medium that helps enable interactivity in DE. They do not work by themselves but need distance tutors’ active role for them to effectively increase interactivity in online programs. The high percentage of tutors who answered the conceptual question on interactivity incorrectly shows DE training courses are relevant for tutors to be able to realize they play an important role in the teaching-learning process. Tutors need to attend not only general courses on DE but also ones that work specifically on tutors’ role in fostering interactivity in the learning environment. Approximately 54% of tutors who are currently attending or have completed specific DE training answered the conceptual question on interactivity incorrectly, which shows the contents in specific DE training courses are a relevant factor as well. A topic as important as this one must be better worked on in DE training to make sure all students complete their courses with this notion firmly internalized. However, we should point out that, even while lacking a proper definition of interactivity, it is possible for tutors to competently do their job. Nevertheless, we believe it is important that any and all tutors should be able to properly define a concept that is key in their line of work.

The second open-ended question in this study examined the connection between interactivity and learning in online programs: “Do you believe interactivity is important for online program students to be able to learn? Why?” Out of all the answers, only one was “no,” which shows most tutors understand there is an important relationship between these two concepts. The second part of the question, which asked for an explanation to their affirmative or negative answers, had an answer pattern mentioning the importance of the tutor-student relationship. On the other hand, the issue related to student-student interactivity was largely disregarded. Examples for this answer pattern can be found in the quotes below:

“Essential, because it is even harder for distance education students to find their bearings within the theoretical backdrop of the subject being studied, unlike what happens in a classroom where a lecturer is there. Tutor-student interactivity is necessary to strengthen students’ bond with the topic, to make them closely familiar with it. However, discretion by both parties is paramount to keep such interaction within ethical boundaries and personal matters off limits during their interactivity.”

Tutor 8.

“Yes. Interactivity is a way of keeping in direct contact with the course contents in the absence of a face-to-face lecturer.”

Tutor 14.

The answers show this portion of tutors see interactivity as a tool used to facilitate students’ individual understanding of the course contents. Student-student interactivity-related aspects were mentioned by a mere 10% of tutors, which shows the idea that interactivity is restricted only to the tutor-student relationship remains prevalent among the tutors in the sample. This standpoint mirrors the model of the traditional lecturer-centered, face-to-face education system. According to Amaral & Rosini (2008), virtual learning environments must provide support to collaborative learning where students participate in a collective construction of knowledge. Without student-student interactivity, knowledge is worked on merely along a one-way street where students receive the course contents.
A closed-ended question asked tutors how important DE actors were in terms of fostering interactivity (Figure 3). Considering the average answer for each DE actor, we find that “Tutor” scored the highest (9.9), followed by “Students” (9.3) and “Platform tools” (9.0). Therefore, we can say tutors’ role was considered the most important where fostering interactivity is concerned, while the roles of students and tools were very close in the general opinion of the distance tutors sampled. This result shows that, according to tutors, platform tools play an important role in interactivity by themselves, which ratifies the results found from the open-ended question on the concept of interactivity. However, it is obvious tools must be used to enable tutor-student and student-student communication and are not interactivity providers in and of themselves.

Figure 3: Frequency of answers by distance tutors (n=20) in a semi-online biological sciences teacher licensure program in the state of Rio de Janeiro to the question: “On a scale from 1 to 10, choose how important each item below is in terms of fostering interactivity in distance education.” The answers were closed on a scale from 1 to 10 for each DE actor. Each bar represents the average score for each actor. Study conducted between May 19 and 30, 2012.

The last two questions in the questionnaire asked about the types of tools tutors had already used and which they believed enabled greater interactivity (Figure 4). We can see the tools tutors used the most were forums (20 mentions), tutoring room (20 mentions), and the Activity tool (16 mentions), all of them asynchronous. The tutoring room is a specific tool for asking questions and works as a Q&A forum solely between tutors and students. It is not meant for student-student interaction. The Activity tool allows people to post attached files, such as distance assignments. When we analyze the tools that tutors claim enable greater interactivity, we find the two answers do not coincide. The Activity tool, which tutors use a lot, was not even mentioned as important for interactivity. Other tools, such as the forum and tutoring room, also used a lot by tutors, were mentioned only a few times in terms of being important for interactivity. That tells us the tools used the most on this program’s platform, according to the tutors, are not directly the ones which
allow for greater interactivity. A tool like the chat room, for instance, which was used by only 25% of tutors (Figure 4), was mentioned nearly twice more when its importance for interactivity was considered (45%; Figure 4). This pattern shows tutors are aware that synchronous tools may play an important role to enhance interactivity, even though such tools are not used in their courses. According to Ferreira & Bianchetti (2004), “a chat room is a space where everybody interacts with everybody, and not merely in the professor-student sense.”

Other synchronous tools may play an important role in DE. Castro (2007) points out that students may perform differently on different tools, and that is why it is important to have several options in place providing interactivity in online programs. In the program analyzed in this paper, professors are responsible for choosing the tools so their tutors may encourage greater interactivity by the course’s actors. Even when students are driven and tutors have been properly and specifically trained in DE, a virtual learning environment needs to have suitable interactivity tools. Therefore, there is no interactivity without an active role by tutors/students and without the use of synchronous and asynchronous tools that help mediate this relationship.

Figure 4: Frequency of answers by distance tutors (n=20) in a semi-online biological sciences teacher licensure program in the state of Rio de Janeiro to the questions: “Select below the platform tools you have used in your course” and “Considering the tools listed above, which one/ones do you believe allows/allow for greater interactivity?” Blue bars represent tools already used and red bars represent tools that allow for greater interactivity, in the tutors’ opinion. Study conducted between May 19 and 30, 2012.

4. FINAL CONSIDERATIONS

This paper presented a case study into the importance of interactivity in an online undergraduate program. In the group of tutors sampled, 50% were pursuing or held a doctoral degree, which shows this group’s high academic background. Additionally, most of them were enrolled in or had completed training in DE. However, approximately 30% of tutors who had specifically trained in distance education said they had only done so upon request by their course coordinators. This result shows that, despite boasting a high
level academic background, not all tutors recognized the importance of a DE training course for their professional practice, which may lead to low course performance or even rejection by some tutors. Considering 54% of tutors who said they were attending or had completed a DE training course provided incomplete answers to a conceptual question about interactivity, this picture becomes even more worrisome. Although in subsequent questions most tutors showed they had an intuitive notion about what interactivity is, they do not work in a manner consistent with such notion. Investing in quality distance tutor training, along with using both synchronous and asynchronous tools, may encourage interactivity in online programs and thereby increase tutors’ interest and participation in the promotion of interactivity. No less important is DE training for professors in charge of courses so that their planning includes the use of interactivity-boosting tools and strategies to provide more learning opportunities for all.

REFERENCES


MEDEIROS, L.; MACEDO, M.; AMARAL, S.; RIBEIRO, V. Sistemas de tutoria em cursos a distância: Texto base. Material da disciplina Sistemas de tutoria em cursos a distância,


ANNEX 1

A importância da interatividade para a EaD

Caro tutor,

Este questionário tem como objetivo entender a importância da interação no contexto da tutoria a distância. Essa pesquisa faz parte do trabalho de final de curso do aluno Luiz Bento, da Pós-graduação em Planejamento, Implementação e Gestão da Educação a Distância (UFF). Por favor responda com sinceridade pois as suas respostas serão importantes no trabalho. E não esqueça de assinar o termo de consentimento!

*Obrigatório

Informações pessoais

Idade *

[ ]

Sexo *

[ ] Masculino
[ ] Feminino

Formação acadêmica *

[ ] Bacharel/Licenciado
[ ] Mestrando
[ ] Mestre
[ ] Doutorado
[ ] Doutor
[ ] Pós-doutorado
[ ] Pós-doutor
[ ] Outro:

Informações sobre sua atuação como tutor(a)

Está fazendo ou já fez algum curso de formação específico em EaD? *

[ ] Sim, mas apenas porque foi solicitado pelo coordenador do curso/tutoria.
[ ] Sim, pois acho que pode ser importante para minha formação.
[ ] Sim, pois acho imprescindível para um tutor ter formação específica em EaD.
[ ] Não, mas pretendo fazer pois acho que pode ser cobrado por isso.
[ ] Não, mas pretendo fazer pois acho importante para minha formação.
[ ] Não, pois não acho que seja imprescindível para um tutor ter formação específica em EaD.
[ ] Outro:
Qual a disciplina em que você é tutor? *

Qual é o conceito de interatividade para você? *

Você considera a interatividade importante para o aprendizado de um aluno em um curso a distância? Por que? *

Em uma escala de 1 a 10, escolha o nível de importância de cada item abaixo para a promoção da interatividade em educação a distância: *

Alunos

Nenhuma importância | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10

Imprescindível

* Tutor

Nenhuma importância | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10

Imprescindível

* Ferramentas da plataforma (fórum, chat, etc)

Nenhuma importância | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10

Imprescindível
Selecione abaixo as ferramentas da plataforma que você já utilizou em sua disciplina: *

☐ Fórum
☐ Chat
☐ Sala de tutoria
☐ Atividade (envio de AD online)
☐ Vídeo Tutoria
☐ Wiki
☐ Blog
☐ Outro: ____________________________

Considerando as ferramentas listadas acima, qual dela(s), na sua percepção, possibilita(m) maior interatividade? *

☐ Fórum
☐ Chat
☐ Sala de tutoria
☐ Atividade (envio de AD online)
☐ Vídeo tutoria
☐ Wiki
☐ Blog
☐ Outro: ____________________________