Dedication, humbleness, and audacity: advice from pathfinder faculty to colleagues new to online distance education

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Abstracts

English

This article examines distance education (DE) in the context to which is most frequently applied, i.e., higher education, and from the perspective of some of its most important actors, i.e., teachers. This study, of a qualitative nature, was conducted at a public university in Brazil. Data were collected by means of unstructured interviews, observations, and a questionnaire with close- and open-ended questions. Since DE is a relatively novel educational modality in Brazilian public higher education, this study asked pathfinder faculty to give advice to upcoming colleagues, most of them experienced in face-to-face higher education, but new to DE. Cooperation, commitment, organization, and above all courage and humility to learn and openness to new experiences, are, according to this research, attitudes essential to novice DE teachers.

Brazilian

Este artigo analisa a educação a distância (EaD) no contexto em que é mais freqüentemente utilizada, ou seja, o ensino superior e, a partir da perspectiva de alguns dos seus atores mais importantes, ou seja, professores. Este estudo, de natureza qualitativa, foi realizado em uma universidade pública no Brasil. Os dados foram coletados por meio de entrevistas não estruturadas, observações e um questionário com questões fechadas e abertas. Uma vez que a EaD é uma modalidade educacional relativamente nova na educação pública superior brasileira, este estudo pediu aos professores desbravadores para que dessem conselhos aos colegas que viriam depois deles, a maioria com experiência no ensino superior presencial, mas novatos em EaD. Cooperação, organização, comprometimento e, acima de tudo, coragem e humildade para aprender e abertura para novas experiências, são, de acordo com esta pesquisa, atitudes essenciais para professores iniciantes em EaD.

Keywords

English

Distance education, teacher education, higher education, teacher knowledge base.

Brazilian

Educação a Distância, formação de professores, ensino superior, base de conhecimento para a docência.

Topics of the paper

- Introduction
- Higher education and ICTs
- Teaching face-to-face and at a distance in higher education
- Online teacher knowledge base
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Introduction

Several authors have sought to understand the structure and functioning of distance education (DE), and did so from distinct perspectives (e.g., Hargreaves, 2004, Behar, 2009, Kenski, 2003, Belloni, 2010, Mill, 2010). We believe that a discussion on DE should begin by examining it in the context to which it is mostly applied: higher education. The past and present situation of DE and its future development are closely related to the characteristics of higher education Institutions (HEIs), their activities and their demands throughout history. It is well known that HEIs are enduring institutions; few human organizations have survived for so long. Sixty-two of the 66 institutions with continuous existence since the sixteenth century are universities (Brunner, 1997). However, this longevity has its counterpart: conservatism (Ribeiro, 2007). In fact, many current procedures of HEIs—e.g., sequential curriculums and measurements of student performance through tests—were established when the first universities were founded in the Middle Ages.

Still, despite an overall tendency to inertia, there are indications that HEIs have been regularly forced to change their procedures in response to social needs and persuaded to incorporate new theories derived from educational research and communication technologies available at different historical moments. This is no different today: many HEIs have been encouraged to change their practices to accommodate a more diverse student body, composed also by individuals previously underserved or excluded, and adults who come to universities and colleges for deferred professional training, to supplement or upgrade previous education, or even for personal enrichment. To this, there can be added pressures for further democratization of higher education with the purpose of reaching spatially-marginalized populations, a key issue in a country with continental dimensions like Brazil, whose centres of culture and knowledge dissemination are concentrated in some regions and in state capitals.

Moreover, HEIs have been required to change their processes to meet their students' different educational learning styles, long pointed by Kolb (1981), which tend to grow in the course of life (Knowles, 1984). However, the compartmentalized, linear, and cumulative curricula and the teaching methodologies based on the transmission and reception of concepts and theories validated by science, common in HEIs, seem to favour a sole learning style: intuitive, verbal, deductive, reflective, and sequential (Felder, 1993). Above all, these curricula and teaching methods do not seem to take into account the learning characteristics of students who enter their doors today, accustomed to the intensive use of the Internet and other information and communication technologies (ICTs). It seems that even the simplest technological advances may affect students' expectations and their learning styles (Grauerholz et al., 1999, Belloni, 2010). Grauerholz et al. (1999) call attention to the fact that today's children—our future students—interact with the television and by analogy with other sources of information differently from individuals who have experienced this technology before the remote control was invented and popularized. The authors believe that traditional teaching methods—in which students are expected to pay attention to teachers lecturing for an hour or more—will become a major challenge for both parties.

Higher education and ICTs

Despite not exhausting the current problems faced by HEIs, the abovementioned factors have forced HEIs to consider alternatives to traditional educational models, conceived in the Middle Ages, at a time when books were rare and expensive and teachers were reliable (and cheap) sources of knowledge. Nowadays, this teaching role is less important because of the Internet (e.g., visits to online databases, journals, and books). Lectures have been gradually replaced by less directive methods—i.e., rooted in the premise that knowledge is not transmitted, but constructed by the individual—and technologies are increasingly being incorporated to support and improve teaching. In this direction, although it is hard to predict how higher education will evolve in Brazil, or elsewhere, as it depends on public policies and investments, it seems that the classroom will become more and more supplementary, learner-centred, and ICT-based. That is, the classroom will have a function different from what it currently does; it will be used less for transmission of theory and more for processing of information sought by students and for implementation of the same in problem-solving and projects.

In fact, nowadays information transmission can already happen through more comprehensive and more efficient media: ICTs such as synchronous video-lectures, pre-recorded classes, and databases, even in face-to-face education. Discussions among students and teachers about concepts and their applications (essential to knowledge construction) are already carried out through ICTs, e.g., mailing lists (Internet) and web-conferences, in some traditional HEIs. However, it is important to emphasize that, despite the increasing incorporation of ICTs into teaching and learning processes, this has not occurred uniformly among nations and regions of the same nation. It is also believed that, however promising, ICTs will always be used less at some educational levels (e.g., elementary school), due to its inherent characteristics. Even in higher education, there will always be varying degrees of ICT incorporation among programs and courses of the same program. Moreover, ICTs may be more compatible to some contents than others may.

Teaching face-to-face and at a distance in higher education

Moreover, the integration of ICTs into the teaching-learning process of HEIs has been uneven when comparing face-to-face to distance education. There are certainly numerous reasons for this disparity, including the conservatism of HEIs and its actors, accustomed to the didactic possibilities allowed by the traditional classroom. However, it seems that the fast appropriation of ICTs by DE administrators and teachers is due to their perception that these technologies allow them to make use of educational theories (e.g., constructivism) and make available information (e.g., through texts, videos, databases, and tutorials) in their teaching-learning processes, once limited to mailing instructional materials and teacher-student correspondence (Haughey et al., 2008). In fact, the Internet has made it possible to design virtual learning environments (VLE), which enable interactions among students and between teacher and student (both ways). These interaction modes are important in that they promote knowledge construction by increasing information-processing time for students, exposing them to different viewpoints on a same topic, and promoting elicitation and rectification of misconceptions and consensus building, among other things.

Online teacher knowledge base

The application of ICTs to processes of teaching and learning at a distance has promoted the development and popularization of DE and adhesion of many HEIs and teachers that were previously wary of its effectiveness or believed it to be a form of industrialization and massification of higher education. Because this popularity is recent, there is still much to be investigated concerning the processes of teaching at a distance. Then, this paper intends to contribute to the education of teachers to work in this emerging educational modality. There is much to learn about that which a teacher needs to know in order to perform well in a VLE. The literature on the education of face-to-face teachers indicates the need of developing a body of knowledge that includes: knowledge of the fundamentals, history, and goals of education; knowledge of students, knowledge of curriculum; knowledge of content; pedagogical knowledge; and pedagogical content knowledge (Shulman, 1987, 2004). Roughly speaking, the pedagogical content knowledge combines all the other kinds of knowledge so as to promote students' understanding of a given concept/content.

It is reasonable to think that this knowledge base is required to teach both face-to-face and virtual students at the higher education level, in spite of the fact that many of these teachers come from baccalaureates and therefore have little or no pedagogical training. However, despite the large interface between face-to-face teaching and teaching at a distance, the latter has peculiarities that are not usually addressed in teacher education programs. In fact, there are few initial or continuing teacher education curricula that include knowledge about DE and ICTs (Ribeiro et al., 2010). Borrowing from the taxonomy of Zabala (1998), this knowledge may be divided into conceptual knowledge (e.g., history and development of DE), procedural knowledge (e.g., use of ICTs) and attitudinal knowledge. It is possible to assume that DE theories and most of the skills necessary to work in a VLE can be satisfactorily addressed in initial/continuing teacher education programs, although attitudes in favour of DE may be more difficult to promote. Still, we believe that some recommendations contained herein may be valuable to teachers—whether experienced or inexperienced in face-to-face education—new to DE and managers and to coordinators/administrators of online programs in order to understand their teachers' needs and difficulties and promote teacher adherence.

Contextualization and methodology

This investigation was conducted among teachers, instructors of undergraduate programs offered online through a partnership between Universidade Aberta do Brasil (Open University of Brazil) or UAB and Universidade Federal de São Carlos, São Paulo State, Brazil, hereinafter referred to as UFSCar. This partnership also involves a third party, towns or cities, which provide their online students (residents of their region) with infrastructure (e.g., computers, textbooks, and laboratories) where they come to perform face-to-face activities, do experiments, and sit mid-term and end-of-term exams. These infrastructures, known as Poles, are run by partner town/city administrations, which are responsible for their staffing, with the exception of local face-to-face tutors, who are selected/hired by UAB-UFSCar. UFSCar offers five online programs through UAB: pedagogy, environmental engineering, sugar-ethanol technology, music education, and information technology.

Because this is a new project at UFSCar, the teachers—mostly from face-to-face programs of this institution—were experiencing online teaching for the first time. In accordance with the qualitative nature of this study (Denzin & Lincoln, 1994), in order to give them voice and document their experiences for future appreciation of novice DE teachers, the participant teachers were given a questionnaire with open and closed questions (59 respondents). The questionnaire comprised 13 close-ended questions—personal and professional characterization of respondents and their perceptions about their work as DE teachers and the HEI's adopted DE model—and two open-ended questions, in which respondents were asked to write down (a) recommendations to newcomer colleagues and (b) suggestions for improvement to the HEI's DE administration. This study analyses the data provided by the close-ended questions and the former open-ended question (a). The data provided by this open-ended question (a) were categorized, analyzed, and triangulated with observations and unstructured interviews carried out by the researchers. At the time of this study, the researchers held DE administration/coordination positions at the HEI that involved frequent observations of DE teachers' work and face-to-face meetings with them, individually and

collectively.

In the DE model adopted by UAB-UFSCar teachers are responsible for preparing and administering their courses. That is to say that they develop their own written material and other learning objects and design VLE activities and other online course-related aspects with other professionals. In addition, teachers have the support of online tutors (one for every 25 students) while the course is online.

Results and discussion

The suggestions given by the participating teachers to their fellow beginners in DE point to a wide range of conceptual, procedural, and attitudinal knowledge and indicate some correlation to the participants' individual characteristics. Although the difficulty of categorization is inherent to qualitative research, we have attempted to demarcate some subcategories within these major categories; needless to say that these subcategories should not be taken rigidly. The teachers' suggestions point to the development of conceptual knowledge (e.g., about DE and ICT), procedural knowledge (e.g., organization of time and management of the work done by tutors), and attitudinal knowledge (e.g., cultural change as regards DE, commitment to the DE model adopted by UAB-UFSCar, collaboration with other actors, and acknowledgement of DE specificities) (Figure 1).

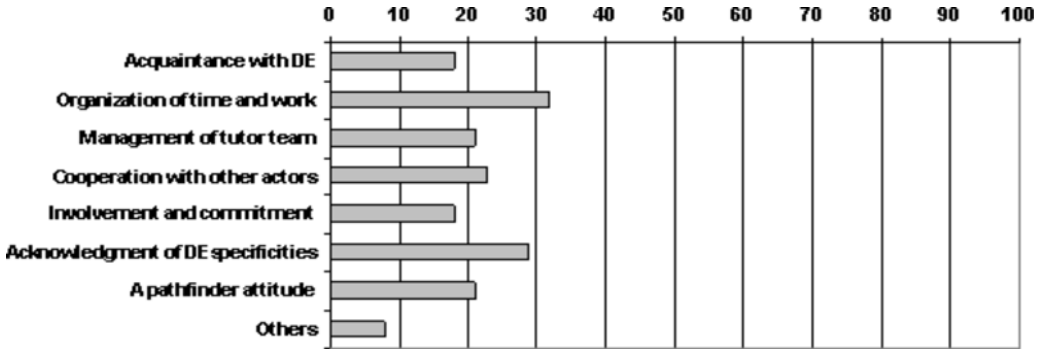

Figure 1. Suggestions versus percentages of teachers mentioning them.

Acquaintance with DE

Under conceptual knowledge, respondents pointed to the need for acquaintance with DE. This need implies (self-)instruction and willingness to learn about ICTs and the DE model adopted by UFSCar, *sine qua non* for the proper performance of online teaching function:

> "Read about DE", "When you start working at UAB [online UFSCar], try without delay to understand how each tool and/or methodology can be used in the courses";
>
> "[...] the awareness that computational tools are just tools, i.e., they just expand the capacity to promote learning when appropriately used by the teacher and learners, thus breaking once and for all the myth that machines can replace people."

It should be remarked that the increasing complexity of the computational tools and the speed of these advancements imply that this teacher preparation to work online should occur both in initial and in-service teacher education programs.

As it was expected, the use of ICT stood out among the skills cited by respondents. To UFSCar teachers of DE courses ICT know-how leads to greater teacher autonomy, which is reduced in this mode of education due to teachers' dependence on other actors (e.g., instructional designer):

> "Seek to build autonomy in Moodle [the online course/program management system at UFSCar]"; "Learn how to use Moodle, not to depend on or demand the whole thing from the technical team."

This is an interesting aspect in that teachers regaining part of their lost autonomy can result in greater professional satisfaction and, therefore, greater retention of faculty in DE programs.

Organization of time and work

There are some other skills that, however useful in any kind of education, seem to be indispensable in teaching at a distance because of its characteristics, e.g., higher technological complexity and greater difficulty in changing processes. DE seems to demand more careful planning from teachers, which might overwhelm them, especially if they have to perform other academic activities (e.g., research), as is the case of most UAB-UFSCar teachers. For this reason, most of the recommendations cited by respondents refer to the organization of time and work, which is associated with two aspects:

- *Advance preparation of online course*:

  "[It is important] to have the printed material ready with all their educational interfaces properly adapted to DE"; "Time organization for course preparation. DE courses use more preparation time, because you have to transfer all information to the environment and that takes time"; "Schedule more time. DE demands that beginning teachers have a lot of time."

  This careful course preparation also appeared in the speech of teachers associated with students' time and workload, i.e., with the need to compute the time needed to perform the activities proposed to students, as shown by the following extracts:

  "Balancing quantities of content and tasks with workload from the perspective of the student";

  "Be economical in the beginning, in the preparation of materials. I overdid it when selecting and writing the texts and the amount of activities. This demanded a lot of my time and work, besides overloading my students (who need to allocate their time among various courses of the module [semester])."

  This exercise of predicting the time needed to carry out the activities seems to be a challenge for teachers, accustomed to face-to-face education, in which it is easier to make changes in courses in progress. Although it is risky—perhaps impossible—to predict the progress of courses in both educational modalities, due to varying characteristics of different groups of students, it seems to be more difficult for teachers to subtract or add activities in DE courses while in progress because of the collective nature of the teaching work in this modality, which requires the assistance of other professionals (e.g., instructional designer).

- *Setting up a work schedule* while the course is online:

  "Establish and follow a strict weekly schedule of activities, such as opening and closing activities, answering questions from students. If necessary, provide guidance for tutors, give instructions, etc."; "Set aside 10-15 hours per week for the first offer [of the course]. If your course is considered difficult in face-to-face education and you have 200 or more students, reserve much more time than that."

Ability to manage group of tutors

The need to organize their teaching work and time while offering the course is closely related to a skill little required in face-to-face teaching: team management. In the face-to-face modality teachers not only prepare their courses without the aid of colleagues or other professionals, but they also teach them in the same way. DE teachers have to work with tutors, who are mediators between students and the content in question and between these and the teacher. Therefore, the progress of the course depends on the teacher's ability to manage his/her team of tutors. According to respondents, establishing *an effective communication channel* and *a relationship of cooperation and equality with tutors* is crucial to the success of the course and satisfactory student performance:

> "Follow closely the work of your tutors, directing and synchronizing the work of the team" , "Learn how to lead your group of tutors in a non-authoritarian way, after all it is they who are actually teaching your students"; "Choose carefully your tutors and create a clear channel of communication with them so as to monitor the course well"; "Listen to your tutors; they often know more about the students than we do."
>
> "Create a sense of team among you (teacher) and tutors. Never put yourself above them, because their performance is the soul of any [online] course. This requires the building of a team identity among the people involved, a sense of complicity and optimism, so that commitment and responsibility will come as a result (with consistency in educational practice and dialogue—no need for empty rhetoric)."

Collaboration with other actors

The last excerpts also refer to a characteristic of teaching at a distance: collaboration with other actors, which can be seen as both a skill and an attitude. Regardless of the teacher's ICT know-how, preparation and maintenance of courses while online always require working together with other professionals such as tutors, instructional/web designers, computer technicians, other teachers and program coordination/administration, at least in the DE model adopted by UFSCar. This aspect was perceived by respondents, who suggested that colleagues beginning in this educational modality:

> "Stay in sync with the program coordination and administration"; "Share information with other teachers and experienced tutors; share information with other institutions; seek to work collaboratively with tutors, teaching team and other teachers"; "Embrace the opportunity to work with different teams, each bringing its contribution. Collaborative work [in DE] presents possibilities unheard of in face-to-face teaching environments."

Involvement and commitment

Apart from the willingness to collaborate with other DE professionals, faculty commitment emerges in the data as an important attitude for success in this educational modality. Essential to the implementation of any innovative proposals in education (Huberman, 1973), involvement and commitment appear in the participants' suggestions associated with:

(1) *DE in general*:

> "Apply yourself to your work with great intensity" "Lots of discipline and organizational skills are essential to work in DE, and a lot of involvement"; and

(2) *courses and students*:

> "Make yourself present in the environment [VLE]; guiding tutors and intervening whenever necessary"; "Know about what is happening during the course, students' expectations and tutors' comments"; "Identify your students' profile, which usually differs from that of face-to-face students"; "Visit the Poles to see that students are real people"; "Do not be afraid of interacting with students. It is important that students have some contact with the teacher, to feel the 'presence' of the teacher, to feel they are being supported."
>
> Besides alluding to the importance of teachers' social and teaching presence (Garrison & Archer, 2007) in the DE model adopted by UAB-UFSCar, these passages hint at a type of knowledge that seems to be hampered in online teaching: knowledge of students and their characteristics (Shulman, 1987, 2004). Despite this, the participants' statements suggest the existence of strategies that can be used to mitigate this effect of online DE.

Acknowledgement of DE specificities

According to respondents, another attitude necessary for promoting students' achievement in the context studied is the acknowledgement of DE specificities:

> "Work closer to your tutors and devise shorter and more direct activities [than those of face-to-face education]"; "Adapt content to the language by which students will come into contact with the course"; "Reflect well about the difficulties that your DE students will face in your course over time in order to propose activities that will effectively help them overcome the barrier of physical distance"; "Don't simply insert materials/resources in the Moodle platform [VLE]. There should be a thorough preparation of materials and proper planning to meet DE specificities"; "Balance quantity of content and tasks with workload from the perspective of the student".

All excerpts above point to a type of knowledge that Shulman (1987, 2004) considers vital to teaching: the pedagogical content knowledge. It appears that in DE this type of knowledge is a combination of content knowledge, pedagogical knowledge, knowledge of students as well as knowledge of ICT and DE specificities in order to promote student learning online. These recommendations are also relevant in that they constitute words of caution about the dangers of employing pedagogical models and teaching strategies conceived for face-to-face education in DE contexts.

A pathfinder attitude

In addition to these more pragmatic attitudes, essential to the proper progress of the course, the teachers' statements indicate the need for teachers new to DE to nurture a pathfinder attitude, or the cultivation of attitudes necessary for all who are entering uncharted territories, regardless of their personal characteristics. For the research participants is necessary to have flexibility, patience, and perseverance in the face of difficulties and a willingness to learn. Most of the respondents recommended that teachers beginning in DE:

> "Be humble. Open your mind"; "Be flexible. Be open-minded to accept new challenges and also changes in direction whenever necessary";"[Have] patience when problems occur"; "Be open to learn and incorporate new teaching practices";
>
> "I'd suggest not to be afraid of technological challenges and to move forward, because the world certainly will not revert from these acquisitions and new forms of human relationship. We need to modernize and keep pace with new and inescapable trends."

We believe that this and many examples of conceptual procedural and attitudinal knowledge enlisted above are not commonly or appropriately developed in initial or continuing teacher education programs. Besides, as previously stated, we are aware of the difficulty in promoting some of these abilities and attitudes. However, we agree with the excerpt below that it is necessary to take into account this knowledge

associated with teaching at a distance in initial and in-service education of teachers so as to prepare them for a wider scope of professional settings and to advance student learning both in face-to-face and distance learning environments:

> "I think courses on pedagogical issues [in DE] are essential to arouse true interest and motivate teachers to change their practices, to become, regardless of the media used, conductors of student learning".

Final remarks

ICT developments and the consequent possibility of applying educational theories to DE helped to promote adhesion to this educational modality of many HEIs and teachers, who previously saw it with suspicion. Today the world's best universities now offer DE programs/courses and there is a mounting body of research attesting to its effectiveness in promoting learning in several fields of knowledge. DE in Brazil has gained momentum over the last decade, with the support of government agencies (e.g., Open University of Brazil) and public universities and teachers committed to democratization of higher education and quality teaching and learning. Due to this recent adhesion, current teachers can be compared to explorers of new territories in the Middle Ages, at the time of the founding of the first universities. Their advice to teachers to come is valuable in that it encourages them to take advantage of the range of possibilities offered by ICTs and warn them against the dangers of applying models used in a familiar territory (face-to-face education) to one that is still being charted (DE). Especially in view of the conservatism inherent to HEIs, these pathfinder teachers advise humbleness to learn new things and audacity to try new ways of teaching and learning, two attitudes essential to all explorers of new educational spaces of the Media Age.

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