EDUCATIONAL CHAT IN THE PROCESS OF KNOWLEDGE CONSTRUCTION IN NURSING[1]

Porto Alegre – RS – 05/2010

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Contents and Abilities (B)

University Education (3)

Report of Research (A)

Scientific inquiry (1)

Abstract

This documental study has the qualitative approach of a case study. It analyzes how autonomy has been developed in nursing students' process of knowledge construction, in a context mediated by the use of educational chat in Learning Management Systems (LMS). The analyzed materials were eight discussions promoted by students, professors, and monitors in the chat session of TelEduc® LMS. The software NVivo® was used to categorize data and Content Analysis for the analysis of information. Data analysis used Freire as a reference point, revealing that nursing students need to develop their autonomy by acknowledging their incompleteness. Professors can aid this process by problematizing and developing critical dialogical relations. The potential of the educational chat as a pedagogical tool is highlighted because it encourages students to autonomously seek knowledge.

Keywords: education in nursing; distance education; knowledge; learning; professional autonomy; internet

1 - Introduction

One of the principles of the Brazilian National Curriculum Guidelines for Undergraduate Programs in the Field of Health is "to encourage independent teaching practices with a progressive intellectual and professional autonomy" [1]. Nurses' autonomy is important for the definition and review of objectives and challenges of the profession, to understand the manner nurses present

themselves and relate with the other members of a health team and with society in general in order not to interfere in the establishment of care priorities [2], [3].

It is generally believed that Information and Communication Technologies (ICTs) provide stimuli and challenges to practice curiosity, which can aid students in constructing their autonomy. In the specific case of teaching nursing, offering opportunities to students to decide and exert their autonomy can reveal situations in which they only memorize content and do not actually recognize or learn the studied objective.

One useful digital communication tool for teaching, which can be either incorporated into Learning Management Systems (LMS) or used independently, is the virtual or educational chat, which have the aim of intended to allow the discussion of a given subject and is processed in such a way that students, monitors or tutors and professors are connected at the same time, thus characterized by synchronous communication [4].

This paper analyzes how autonomy is developed in the process of the knowledge construction of nursing students, in the context of learning mediated by the educational chat function in LMS. Pedagogy of Autonomy, proposed by Paulo Freire [5], was used to identify and analyze the relationships and communication established between students and professors in this virtual environment.

2 - Method

This is a documental, retrospective research with qualitative approach of a case study [6].

It was developed at the Federal University of Rio Grande do Sul (UFRGS), College of Nursing with the records of eight educational chat sessions produced between the first semester 2005 and second semester 2006 by students, professors and monitors in the LMS TelEduc® in the course Foundations of Human Care II (ENFO2001) in the nursing undergraduate program.

A total of 190 individuals participated in the study: 185 students (the majority (160) were female) three professors (two females) and two monitors. To preserve the participants' confidentiality, the letter S was used to

denominate students, G for group of students, P for Professors and M for monitors.

The *software* NVivo® version 7.0 and content analysis [7], with categories previously defined according to the proposed theoretical reference [5]:, were used to treat data characterized in the this study as dialogs between students, professors and monitors.

The research project was approved by the Ethics Research Committee at the UFRGS (n. 2007825). A commitment form was signed by the researchers to ensure the privacy and confidentiality of data and individuals [8].

3 - Results and Discussion

3.1 – Accommodation

When people lose their capacity to chose, whether by omission or others' imposition, decisions are no longer theirs because someone else decides for them. This is when accommodation occurs: individuals accommodate in view of others' imposition, they shut themselves, do not give their opinion, do not dialog, do not decide and therefore, do not participate. Reason and criticism are present in this behavior, though, they are diminished given the person's accommodation to the experienced context. Education that intends to make students to adapt is in reality accommodating them, impeding them from acting to transform the environment that surrounds them [9], [10].

The following excerpt evidences this behavior in nursing students.

(11:04:11) A91 to everyone: we find that the normal did not be described.
(11:05:08) A106 to P3: ah, I was too with this doubt, if he needs to describe normalities
(11:05:48) G22 to P3: we find that what was normal was implied when we described the pathology.
(11:05:58) P3 to everyone: in this phase is important to describe normalities mainly to be become accustomed with the scientific language.
(11:06:35) A95 to everyone: to describe normalities?

It's necessary that the educator assists the students to pass of the naivety for the criticism, developing the curiosity. In the case above, the

professor instigated that the students would have to describe normalities to become accustomed themselves with the scientific terms. But it's more necessary, therefore the academic (and professional future) he needs to understand the meaning of the terms technician to understand what he is being related in the handbook of the patient, beyond if communicating with the too much colleagues of the area of the health and with the proper patient, whom many times the explanation does not understand received technique demonstrating, with this, whom values its patient and that it is part of the care that is being carried through.

3.2 - Dialogical relation

There is no dialog where there is not true and critical thinking, because naïve thinking leads to accommodation and critical thinking leads to the permanent transformation of reality and humanization. Therefore, educators' critical thinking should not oppose the capacity of students to think critically, since a dialogical relation starts when subjects open themselves up to the world and to the others around them in a restless and curious manner [5], [10]. The dialogs in the analyzed educational chats occurred between professors and students and also among the students themselves.

Professors has the responsibility to discuss the content under study with students and not only to present it as something already developed and fixed. Professors should listen to students and respect their understanding concerning reality, using their experiences and incorporating them into discussions in the classroom [5], [10]. The following excerpt exemplifies this:

> *(10:18:53) G1 to P1: Professor, how can we comment on the symptoms, implying the patient is diabetic and doesn't know, without a medical diagnosis? Can we suggest a OGTT? Or HGT???*
> *(10:19:59) P1 to G1: Only putting capillary glycemia, signs and symptoms (polyuria, pollakiuria, hunger and infections,…)*
> *(10:21:39) P1 to G1: No, but only this doesn't mean DM.*
> *(10:26:50) G1 to P1: infections.*
> *(10:27:25) P1 to everyone: Infections can raise glycemia, what else? Anyone has anything else to suggest??? (10:27:25) S2 answer to everyone: consumption of food right before testing.*
> *(10:27:34) G1 to P1: pancreatic involvement (which doesn't mean DM.)*

(10:28:21) G1to P1: renal disorders cause another type of diabetes.
(10:29:04) G2 everyone: stress, consumption of food rich in carbohydrates
(10:31:53) G1 to everyone: the nurse can check it, but my doubt is: you just take note of the result without any observation, like linking the symptoms???
(10:32:34) P1 to everyone: It's everything at the same time, we check the glycemia, the medical records and make a decision.

The professor took advantage of the students' knowledge and included it in the discussion, which enriched the content discussion during the educational chat. The excerpt typifies a dialogical relationship in which postures and evidence of previous knowledge of both parties in this relationship, professor and students, cause new knowledge to emerge, instituting the production or the construction of knowledge in this way. The educator's role is focused on helping students to interpret, relate and contextualize this information, mobilizing the desire to learn critically. Interactive teaching requires professors to have the sensibility to promote changes in students' thinking as they expose them to new ideas while valuing their previous experiences and strengthening them to become independent appendices [11], [12].

Professors who use the educational chat should allow students to interact as much as they want among themselves and should intervene only when necessary because communication among students should be more intense than that with the instructor. The professor is more a promoter of activity, so they should allow space for students to talk about their doubts and give their opinions in relation to the discussion. This interaction between students can be perceived in the educational chat when they "exchange their experiences, expose their ideas and feel free to question each other" [13]. This attitude is evidenced in the following excerpt.

(10:39:15) G10 to everyone: but what if the patient restricts access to his records, because there're confidential information, and a family member asks to see them. What do we do?
(10:39:57) S30 to everyone*: G10 – as far as I know, patients have the right not to allow people to see it.*
(10:40:35) S 35 to everyone*: G10, then it's about the ethical issue of confidentiality and secrecy.*
(10:41:20) G12 to everyone*: But S 35, every patient has the right to see his records according to law…*
(10:41:45) S 30 to everyone*: the patient does G12, but not family*

members in the case where the patient doesn't allow them to
(10:42:01) S 35 to everyone: G12 I'm talking about the case in which a family member wants to see the records and patient doesn't allow
(10:42:06) S 30 to everyone: IF THE PATIENT DOESN'T OBJECT TO IT, IT'S OK
(10:45:09) P1 and P2 to everyone: returning to the question of patients' rights. A lucid, oriented patient can ask to read his records at the hospital and read it [...]. The family member who is the legal guardian can (minors or people who are older than 65 years of age and are not lucid or is incapable cannot).

We observe the dialogical relationship established among students who discuss patients' rights concerning their medical records. Several questions were posed among students who tried to answer according to their previous knowledge about the subject. Professors only intervened at the end of the discussion, clarifying doubts and allowing the maximum of interaction among the students. Students feel free to question each other, discussing the issue and raising many possibilities in a hospital setting.

3.3 - Evidence of autonomy

Autonomy is a process that is based on several experiences of decision-making, because "no one is initially autonomous and then decide and nobody is subject of nobody's autonomy". To develop students' autonomy, the instructor needs to create activities that encourage making decisions and taking responsibility so that they learn to freely decide and assume the consequences of their actions [5]. The proposed activity encouraged the decision-making skills of some students, as can be seen in the following.

(10:26:04) G16 to P1: Prof., we thought that only following a script and filling it out would be too superficial. So, we used several models of anamnesis and created one of our own.
(10:26:26) P1 to everyone: Right, there isn't a single model

When the discussion referred to anamnesis and to the nurses' physical assessment, the students realized there were not many ready scripts and decided to search for several and adapt them to the patients' needs. This was important, because they exerted their curiosity, their capacity to make decisions

and to be responsible for the act of creating their own model of nursing anamnesis. Distance education has been indicated as a tool that stimulates students' autonomy because the physical distance between the actors of the teaching process leads students to manage their own learning, since they need to plan periods of study, time they will spend in each activity and organize the priority of content to be studied [14]. Some nursing professors have perceived that students assume more responsibility for their learning in distance courses through the internet, think critically and participate much more than in the classroom [15].

4 - Final Considerations

This study analyzed how autonomy is developed in the process of the knowledge construction of nursing students mediated by a digital synchronous tool in LMS. The studied themes were previously defined with the aid of the pedagogy of autonomy [5], because autonomy is a very important characteristic, both to students in their search for knowledge, and for nurses, who should update their knowledge concerning care practices and be capable to act as critical professionals, apt to decide and take responsibility for their actions, whether these are administrative actions or related to their care practice.

The analysis of information evidenced that students perceived their understanding of content that needed to be deepened and revised by themselves, but expected that knowledge would be transmitted by the professor or through professional practice. This perception denotes that students have some awareness of their incompleteness, but are accommodated in relation to the construction of their own knowledge.

Proposing problems in the educational chat permitted the discussion of content, which enabled the construction of new knowledge. Students were argumentative at times, enabling the restlessness necessary for exhausting discussions about certain subjects. The mediators in turn, permitted the maximum exchange between students, discussing, encouraging and intervening whenever necessary but favoring dialog between the participants.

The interactions in the educational chat also allowed students to take

responsibility for and manage their learning; they were able to decide and take responsibility for the development of specific anamnesis scripts and physical assessments of the needs of their patients. This behavior is evidence of their maturing autonomy concerning the construction of knowledge.

For nursing students to develop autonomy it is necessary that they realize how incomplete they are, and this should be done with the help of professors prepared to discuss problems through the development of critical dialogical relationships, content and practical experiences in the profession. For this education to be possible, meaningful pedagogical activities are needed. Discussions via educational chats is one of the strategies that professors can use to encourage students to search for life-knowledge.

We highlight the potential of computer tools in teaching nursing and the need for further studies in the subject of ICTs' pedagogical foundations, since distance education mediated by the internet, as well as the use of online tools, are increasingly being incorporated into programs directed at all spheres, whether in undergraduate, graduate or continuous education programs for nursing students and nurses.

1 Extracted work of dissertation presented to "Programa de Pós-Graduação em Enfermagem da Escola de Enfermagem da Universidade Federal do Rio Grande do Sul" defended under the orientation of the Dr. Eva Néri Rubim Pedro.

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