CONTEMPORARY ASPECTS OF THE SHARED CONSTRUCTION OF KNOWLEDGE: A PERSPECTIVE IN VIRTUAL SETTINGS

ASPECTOS CONTEMPORÂNEOS DA CONSTRUÇÃO COMPARTILHADA DO CONHECIMENTO: UMA PERSPECTIVA VIRTUAL

ASPECTOS CONTEMPORÁNEAS DE LA CONSTRUCCIÓN DEL CONOCIMIENTO COMPARTIDO: UNA PERSPECTIVA VIRTUAL

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ABSTRACT

The aim of this study was to analyze suggestive interactions of processes of shared construction of knowledge among students and professors of a specialization course in family health, in the distance learning modality. The method adopted was the case study, with the evaluation of 66 thematic discussion forums, in light of the methodological framework of social network analysis. Social interactions among the participants were tabulated and graphic matrices were later created. The results indicate the possibility of shared construction of knowledge in the thematic discussion forums, given the existence of interactive relationships. In conclusion, distance learning, as it appropriates virtual cyberculture tools, reaffirms its importance in professional qualification, where resources not only enable the socialization of scientific knowledge, but also instigate the genesis of knowledge that is collectively built.

Keywords: Family Health; Health Human Resource Training; Education, Distance. Discussion Forums.
INTRODUCTION

The valorization of “the knowledge of others” can be understood as a recent pedagogical trend. Based on the precepts of Paulo Freire, it has become a reality in many educational environments, from academic institutions to health care spaces.

Therefore, the shared construction of knowledge prescribes the valorization of life experience as a source of knowledge. This perspective removes the notion of a protagonist in the educational projects, turning every participant into potential subjects and educators.

It is valid to state that a shared construction of knowledge allows for the creation of a bridge of knowledge, through which pieces of knowledge come together to create new ones, becoming bigger than the sum of their parts. The construction of knowledge, thus, is related to the articulation of pre-existing knowledge, which is essentially integrated to two counterpoints: science and common sense.

The construction of knowledge must break with the vertical models of education, in which knowledge is associated solely to scientific knowledge, which marginalizes life practices and experiences. Horizontal strategies for sharing knowledge mix the roles of the actors of the educational process, that is, the transmitter and the receiver work together to build that which is called knowledge-synthesis, which, in short, is the articulation of the contributions of both groups.

It stands out that this type of construction can only take place from a dialogic relation, such as social interaction, which can be understood as a product of social situations experienced through the physical presence of two or more subjects. However, the virtualization of relations exposes the potential of a new setting: the worldwide web and its interactive tools. Among these tools are the discussion forums, an educational resource oftentimes used in distance education in this virtual setting.

In this context, this article raises the following question: the use of interactive resources in virtual media can really enable social interaction between subjects?

THE GENESIS OF KNOWLEDGE UNDER THE LIGHT OF POST-MODERN SCIENCE

Modern science generates knowledge as well as the lack of it, rapidly changing the role of the subject involved in this process, sometimes a scientist, sometimes a specialized ignorant. In this sense, scientific knowledge is legitimated and share, while simultaneously being questioned and demystified. In this setting, knowledge must be built, and not offered. For that reason, opinions, experiences, and even common-sense work in the opposite direction, since they cannot be quantified or measured.

There is an explicit movement which seeks to subsidize the construction of new knowledge, influenced only by the scientific perspective, and thus excluding all other sources of knowledge and creating a rupture with the ideas previously defended, passing through the building of knowledge and finishing with the establishment of an idea. This flow of the construction of scientific thought is similar to the theory of scientific revolutions as proposed by Thomas Kuhn, for which ideas from the common sense have no relevance and are seen as superficial sources, leading one closer to the seductive biological logic, historically used with the premise that the population should be trained to repeat healthy actions.

In this context, this work proposes for the analysis of the process of knowledge creation to be conducted under the light of post-modern sciences, for which rationality is not present in only one type of knowledge, but in the conjunction of all its forms. For this approach, common sense, coupled with scientific thought, brings rationality to its practices and enables the birth of knew pieces of knowledge in a process of shared construction of knowledge.

The shared construction of knowledge involves many dimensions which cannot be quantified as to their degree of importance, not to mention that many authors build their thoughts on a foundation made up of science and knowledge in a way that is similar to that of the construction of shared knowledge, despite subtle differences.

THE TRANSPONSION OF THE SHARED CONSTRUCTION OF KNOWLEDGE INTO THE VIRTUAL SETTINGS IN THE THEMATIC DISCUSSION FORUMS

Although the process of shared construction of knowledge is not in any way restricted to face-to-face education, the discussion of cases in which it is mediated by digital tools and used in distance education is still scarce in national literature. A trend for these practices to migrate into virtual settings can be observed, indicating, especially, how much potential this dimension has when it comes to the connection between different types of knowledge. In this area, the thematic discussion forums stand out.

Thematic discussion forums are tools aimed at increasing the participation of professors and students in long-distance courses, enabling more interaction between participants and, therefore, building a community social environment. Educational experiences mediated by this tool work, in general, through the same dynamic, which, respectively, includes: the reading of texts, the exposition of ideas in the chosen platform,
The analysis of forums indicated that in 4.5% of the cases there was no communication between the participants, and the posts were restricted to those required. It was also found...
that in 57% of the forums there were bi-directional relations, that is, posts with replies. These are the forums that express processes of shared construction of knowledge.

The mean number of interactions per forum was 1.2, with a remarkable variation from group to group. While some groups had no records of interactive relations, others had nearly 20. Although the means of interactive relations was low when compared to the number of communicative relations, it is important to understand that this is due to the complexity of the communicational process. In Image 1 there is a graphic representation of a subject offered in the middle of the course.

On Figure 1, one of the highest numbers of interactive relations among the analyzed forums can be observed. It is possible to identify that the bi-directional connections were made, mostly, by students who were about to finish the course. In addition, there is a high number of students who wrote posts in the forum but did not establish any interactive-relational link with the other participants.

In this study, it was not possible to notice any type of quantitative-time pattern in the interactions among the students in the subjects of the course. However, there was a lot of variety in the presentation of the social web of the analyzed forums. Figure 2 is an example of this.

In this case, a complex social network can be observed. There is no focus on one specific participant, although the students who had abandoned the course had a marginal role - 42% of them did not talk with other participants, 42% established some connection but did not interact, and only 16% were involved in any sort of interactive processes.

In this context, it can be state that there was not, in any forum, interactive relations between two individuals who, later, abandoned the course, indicating that an active participation in the course might be indicative that the student will finish the course.

Based on the existence of interactive processes in the virtual settings, it is possible to articulate the process of shared construction of knowledge under the light of post-modern science thought and of the existing logic in cooperative relations, an articulation from which a complex mechanism emerges, as indicated in Figure 3.
DISCUSSION

The new educational strategies that emerge from the cyberspace can only be positively evaluated if the communication logic breaks with some aspects of traditional education, such as its unidirectional focus. To this end, three interactive bases can be identified in distance education: student-professor, student-student and student-content. The absence of these interactive bases may lead one to not reach the objectives and activities required by the course.

The lack of interactive processes in the forums is pondered upon, signaling an imbalance between the evolution of the use of cyberspace and the preparation of the protagonists for the use of this digital tool. This preparation is not only in regard to the technical capabilities of dealing with the tools of a virtual environment, but, especially, to the comprehension of the relevance of the social moments in education, independently of the educational level and of the subjects the students are going to study.

The main justification for the behavior found is the idea that the student may not be used to the dialogic pedagogical propositions of the course, and may try, involuntarily, to treat an activity created within constructivist and question-raising pedagogy as if it were a traditional educational strategy.

The use of forums in virtual learning environments in health is not well documented as of yet, despite being an important instrument of interaction and bonding between professors and students. The use of the forum in long-distance courses helps to deal with the need of humanizing the relations between the actors, this diminishing the distance between them. However, although it is by itself a guarantee of approximation between the subjects, it does not fatally determine the existence of the dialogic and interactive processes needed for the process of construction of shared knowledge. For that to take place, subjects must be willing to communicate with the “social self” of the other participants. Therefore, this setting may be seen as enabling of the construction of shared knowledge as long as interactive processes effectively take place.

Interactive processes are understood to depend more on the subjects involved than on whether the process takes place face-to-face or in long-distance communication. Additionally, said processes are social phenomena, in which two objectives and two actions simultaneously exist. Therefore, an interactive process can only be concluded from the existence of a mechanism that reverts back to an encouragement of communication. The inexistence of discussions between the subjects leads, thus, to the inexistence of any indication of the construction of shared knowledge.

Nonetheless, other factions may be determinant in the participation of the student in interactive forums. In a traditional classroom there is a great variety of students with different characteristics and behavior, and in the virtual classroom the same is true. Introversion and extroversion are characteristics that culminate in an evident behavioral difference.

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The studies which identified students’ reasons to abandon long-distance courses do not always consider social issues as important factors for the permanence of the student, but sometimes they are also connected to institutional issues. The main reasons mentioned for abandoning the courses are financial problems, lack of time, and too much activities.
As it can be noticed, the process of shared construction of knowledge that takes place in this type of teaching has many influences related to subject-subject associations and also to subject-object relations. For the shared construction of knowledge to happen, an interactive relation is not the only factor necessary, as it needs to be coupled with the incorporation or neutralization of the previously described influences.

Running parallel to this discussion, the concept of knowledge trees also needs to be mentioned. The representation of a tree in the construction of knowledge means the following: the trunk is the most solid part of a tree and represents the previous knowledge of the individuals - their culture, ideology, the way in which they see life. The leaves represent more specialized knowledge and the branches are the links between the previous knowledge and the specialized knowledge.

In post-modern science, the mechanism of shared construction of knowledge is proposed as an engine, the branch of this tree of knowledge. For that to happen, an understanding of the relevance of all dimensions of this tree is necessary, as they all need to be valued as parts that make up an entirety, that do not live one separated from the other.

The construction of knowledge that is linked to what is called post-modern science is not believed to support the verticalization of knowledge, especially when it is articulated with the hierarchization of the knowledge of the subjects involved. On the contrary, relations of love, cooperation and trust are established through cooperation, which is not a characteristic anymore, but a method, in which the subject “I” is replaced by “us”.

The construction of knowledge, considering this, takes place from successive interactions between object and environment, in a perfect symbiosis between the biological and social human. Thus, as the presuppositions of post-modern science are articulated with the needs of social development through interaction, it is possible the verify that there is an interdependency among processes of shared construction of knowledge and communicational and interactional relations inherent to human socialization.

The interactive devices of long-distance educations transform this engine in something possible, that is, it ceases from being a potential action, becoming a real mechanism. It should be highlighted that the thematic discussion forums in long-distance education synthesize the democratic character of the activity, in which the horizontal nature of the different types of knowledge must be expressed, coupled with the awareness of the subjects in order for them to effectively participate.

The use of digital interfaces enables a type of learning which composes, simultaneously, devices of formation and enhancing of dialogue, of collective authorship and sharing of meaning in multiple languages and media, through new methodological processes in the field of education.

CONCLUSION

The construction of knowledge should be more than the mere sum of different content placed in a hierarchy. It should be a process that proposes an interaction between the different dimensions of the same problem, a process whose dynamics is based on the articulation between scientific knowledge and common sense under the light of post-modernity.

It is worth highlighting that the shared construction of knowledge, independently from the setting where it is articulated, can be considered a potential situation, brought into effect by the dialogue between at least two subjects with different sets of knowledge.

The use of interactive resources such as thematic discussion forums showed itself to be a catalyst for the construction of dialogic experiences and the sharing of knowledge.

Although the study was conducted with a group of nursing professionals, its findings are not restricted to said group. Long-distance education reaffirms its importance in professional qualification, since its resources allow not only for the socialization of scientific knowledge, but also instigate the genesis of knowledge built collectively.

Additionally, the need for further studies stands out, especially comparative ones, that may identify the impact of these virtual dialogic relations in the practice of the health professional.

REFERENCES

Contemporary aspects of the shared construction of knowledge: a perspective in virtual settings


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