BABEȘ-BOLYAI UNIVERSITY OF CLUJ NAPOCA

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DOCTORAL SCHOOL – "EDUCATION, DEVELOPMENT, COGNITION"

BLOG – VIRTUAL SPACE FOR ACADEMIC COMPUTER SUPORTED COLLABORATIVE LEARNING

ABSTRACT

Coordinators

Prof. Univ. Dr. Miron IONESCU

Prof. Univ. Dr. Vasile CHIȘ

Ph.D Candidate

Constantina Maria CATALANO

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Keywords: collaborative learning, cooperative learning, computer-supported collaborative learning, team, group, blog, collaborative writing, soft skills.

Structure: This thesis consists of two parts. In the first part, the theoretical foundation, structure, in its turn, into three chapters detailing aspects of the concept of computer supported collaborative learning, of personal skills, soft skills type and also the concept of teaching strategy is defined and explained the concept of the blog. In the second part of the investigation is presented to implement the strategy-action interactive teaching computer-supported collaborative learning on students of specialization Pedagogy of Primary and Preschool Education, Faculty of Psychology and Educational Sciences, Babes-Bolyai University Extension Academic Năsăud .

Generating and sustaining computer-supported collaborative learning (CSCL) in schools includes a wide range of academic concerns specific approaches that can be handled in various ways. For the investigative approach-action in question, we opted to choose a strategy for achieving CSCL, which involved the iterative construction of a product of virtual space collaborative writing or blog for students.

Chapter I of the present study describes the transfer of collaborative learning from the traditional sense in modern and post-modern field of computer-supported collaborative learning. Computer-supported collaborative learning has several reference frameworks, resonating with constructivist theories of learning, the new concept of connectivism and the post-modern group cognition.

Collaborative learning is defined generally as the form of group learning in which there are significant interactions between students. We talk about virtual collaboration, specifically e-learning, where these interactions occur in virtual environments (D. Goren- Bar, A. Koubek, 2001).

Last years of technological innovations have created new opportunities for learners, now pupils, students or other social groups from around the world are already able to form global learning networks.

These networks generate a kind of virtual collaborative learning environment called Computer-Supported Collaborative Learning (CSCL), which refers to the use of technology in a learning environment to help mediation and interaction in groups for a collaborative learning environment to control and monitor these interactions regulate tasks, rules, roles, and acquiring new knowledge mediation.

Also, this way of learning and proposes the development of new applications that bring students together and can offer creative activities of intellectual exploration and social interaction.

E-learning involves electronic media use and specific applications Info & Communications, including all forms of education that involve the use of technical means for learning and teaching. The term is comprehensive for the following activities: multimedia learning, computer-directed learning, programmed instruction, computer training, online education, virtual training, virtual learning environments, learning platforms, m-learning (mobile learning, mobile learning) digital collaborative learning, computer-supported collaborative learning etc.

Computer Supported Collaborative Learning is an emerging branch of the learning sciences concerned with studying how people can learn together with the help of computers (G. Stahl, T. Koschmann and D. Suthers, 2006). In this area, the interaction between learning and technology is complex. This includes collaboration, support the computer and distance education.

Beyond Theoretical, CSCL has a diverse range of instruments their own concrete which can be used and refined according to the goals pursued the strategic design introduced by choosing a support or another. We are talking about virtual applications, work on wikis and blogs, to special programs designed to support computer-supported collaborative learning.

In **Chapter II** we integrated theoretical information on academic learning and social and personal skills such soft skills. In this chapter it was explained how the learning approach on academic level skills, requires a range of skills that contribute to the professionalization of the teaching career during the first training with the possibility of transfer over training.

Academic education has several main characteristics that distinguishes it from the profile of the university. The features that stand out in this context are those related to specific forms of organization of teaching learning (courses, seminars, tutorials, labs, etc.), the educational

methods (the main lecture, lecture, conversation and so on. a) or the evaluation (written works semester, oral examinations, verifications partial micro research etc.).

Given this specific context, academic learning brings together all specific situations, only in addition, has high quality features such as "autonomy, intrinsic motivation, self-control, self-direction and self-regulation of the activity of students" (I. Stăncescu, 2011 p. 5).

In Europe, key skills are defined as the "transferable and multifunctional package of knowledge, skills and attitudes that everyone needs personal development and fulfillment, social inclusion and employment. They should be developed until the end / completion of compulsory education or training should be the foundation of future learning process as part of lifelong learning. "

European reference framework on key competences for lifelong learning sets based on functional descriptors, size and extension of the competence / skills, as is expected to be developed at the end of compulsory education. These are considered "preconditions for adequate performance in adult life, work and further learning processes" (Eurydice Study, Key Competencies, page 6)

A competency involves a series of intellectual and practical operations: mobilization of adequate resources, verifying the relevance of these resources, their effective articulation, relevant approach to the situation, result correctness, etc.

Personal and social skills such as "soft skills" refers to personal attributes that enhance individual interactions, job performance and career prospects.

Personal skills are often associated with personality traits such as optimism, responsibility, integrity, sense of humor, discernment, wisdom, prudence, common sense, etc., and other personal attributes that can be improved by exercise and practice: empathy, team spirit ledership the communication, assertiveness, good manners, negotiation, sociability and ability to learn.

According to theoretical benchmarks in this chapter, it is argued that the foundation of a modern, quality can not occur without cooperation at all levels, be it micro group level or at the macro level, the guidance system education or global education means everything in the world.

Another aspect described in the first theoretical consideration was written in collaboration included in **Chapter III**, where reference is made to the blog as a resource tool that

is part of the arsenal of interactive teaching strategy proposed in the present approach . Co-wrote, was also explained in this chapter, the steps that integrate and work methods used.

The blog was in the early 2000s a kind of online journal that you choose to share with others, known and unknown. Over time, the blog has become a virtual personal expression, communication and exchange of ideas.

Currently, blogs have become an integral part of digital culture. The advantage of choosing the blog as a place to support collaborative learning comes from being a virtual friendly, approachable, adaptable, accessible, which enables you to use it easily sharing. The blog tools are among the most affordable of computer-supported collaborative learning.

Whether initiated for virtual spaces, whether designed for the off-line, collaborative writing has several qualities that recommend it as a valid tool for collaborative tasks.

The experimental method exemplified is that of parallel horizontal writing that was identified as the most suitable for profile work teams and proposed activities to achieve blog articles. In the same chapter three, we described events that were related to the emergence of blogs on the internet and transfer their individual sphere of personal expression in the mediation of learning and storing data indefinitely.

At the end of the first part, there have been a number of recommendations regarding the involvment of students in collaborative activities. It was noted that engaging in a group activity is not suitable for all tasks. Subjects covered must be sufficiently demanding and challenging to require a group effort.

However, tasks may not be so complex as to be beyond the resource requirements, time or collective expertise of the team members. Most importantly, the team is to clarify the purpose and objectives and also what is the best way to accomplish them.

As a conclusion of the first part of the thesis, circumscribing approach can emphasize design and implementation of blog students within computer-supported collaborative learning, with the fundamental activity in collaborative writing articles under the identity of virtual interactive teaching strategy work .

In the second part of the paper was fully detailed the experimental approach, collaborative writing objectified in specific activities designed and carried out during the four years of the implementation work strategy proposed four different batches of students. The blog was elected

to support CSCL, because it was considered the most easily accessible virtual work that supports text form essays seminar that students turned in articles that have been published online.

In **Chapter IV** were defined coordinates research and action proposed in the scope, objectives, hypothesis, variables and methodology system.

In **Chapter V** were detailed experiment steps taken CSCL. The stages of research were presented in order of their performance: stage observational, experimental and post experimental stage.

The ascertaining stage introduced initial investigation of the potential involvement of students in a situation of computer-supported collaborative learning and looking delimitation of the scope of work or computer-supported collaborative learning.

In this phase of the research was given an open opinion questionnaire, which was a scheme to identify three reasons why students considered beneficial computer-supported collaborative learning, and also three limitations of this work.

Data from the questionnaire were recorded quantitatively (relative to the number of students who wished to participate in the CSCL experiment) and qualitatively (by analyzing the advantages and limitations of CSCL, that students identified in the initial stage of the experiment).

The pre-test consisted of a grid of seven predictors of teamwork abilities. Grid teamwork skills was translated and adapted from Griffith Graduate guide Attributes- Teamwork Skills Toolkit, developed by Crebert, G., Patrick, C., J., Cragnolini, V., Smith, C., Worsfold, K. Webb, F. 2011, which, in turn, took over and adapted to the needs of students at Bellingham Public Schools grid (1999, adapted from Berteig, 2009).

This self-assessment grid for students analyze and note their own qualification level and the one when being part of a team. It helps to identify strengths and areas for improvement also in terms of teamwork skills.

The fundamental phase of the research, the intervention was proposed by introducing the independent variable or PIPP-BN blogging collective activities and collaborative learning writing, to highlight the dependent variables.

The initiative of involvment in collaborative activities with colleagues and development of a positive attitude towards pedagogical disciplines showed aspects which may be confirmed over similar activities and may be subject of new research directions.

Also in this chapter the investigative activities were described during the intervention and action (design similar for all experimental groups).

The strategy experiment on interactive teaching and learning collaborative blog written by engaging students in specific tasks delineated had some application frameworks, following the same steps in the development of the four cycles CSCL activities in the area, with four different working groups.

Starting formative stage once held by familiarizing students with the PPIP-BN blog and formation of working groups on selected topics, and completion of the activities involved writing articles and posting them co-written blog.

In the post experimental phase of the investigation, the opinion survey was reapplied.

On one hand, initially we wanted to identify potential work and involvement of students in writing tasks and proposed collaborative learning and anticipating the advantages and disadvantages of computer supported collaborative learning.

On the other hand, the final phase that followed, validated the high number of students who took part in the experiment, involving the proposed tasks and also re-demarcation advantages and disadvantages of CSCL, this time from the perspective of students who were part of the teams so, who wrote and published articles on the blog.

Also, in the final stage of the experiment were reapplied the grid predictors of ability to engage in a task group (Team Work Skills), which validates the skills of students to be part of a team.

Grid indicators teamwork ability was given to students enrolled in work teams in the four experimental groups at the beginning of organizing specific activities of writing and collaborative learning tasks.

In **Chapter VI** were analyzed and interpreted the results of the research. For the collection and interpretation of data for research mixed methods were used: qualitative methods such as opinion questionnaires and also a quantitative component (number of students willing to participate in the experiment), SWOT analysis of the focus -Grup and also a quantitative tool such as quantization grid of teamwork skills.

Therefore, we resorted on quantitative and qualitative analysis methods, depending on the type of data obtained. For statistical analysis we used SPSS 17 for graphics, Microsoft Word Excel 2010, drawing and diagrams Google Drive Drawing application.

It made such a comparative analysis of opinion survey of the data and the acknowledgment phase post-experimental, and a quantitative analysis of the scores obtained on the prediction grid teamwork skills during the pretest and post-test were recorded data on the general perception of students on the learning activity and writing the proposed collaboration was made and an analysis of the learning activity and product co-written by the students.

The results summarized into the following realities: quantitative experiment involved 265 students who became writers on the blog, 63 working groups and 69 articles published on the blog, from the start until now. Goals pursued when choosing this strategy interactive learning through learning activities and collaborative writing were both cognitive and affective.

Consistent with the aims of the proposed results, the participating students achieved the original product – blog through their involvement in publishing articles and covering specific stages of this endeavor (research, writing's draft, review, publication, etc.) and the effective involvement of its task group membership.

The dependent variables resulted in statistically significant in increasing the involvement of students in collaborative learning tasks proposed and changes upward predictors teamwork abilities: listening, curiosity, persuasion, respect, support, generosity and participation. These predictors are included in the key test of the ability of teamwork (Team Work Skills), a tool used to identify the quantitative skills operationalized with means of seven specific verbs.

Quantitative data on student participation in the project of creating the PPIP-BN blog were recorded throughout the experiment, showing a significant difference between the number of students enrolled in the four-year study and the final number of involved participants.
Thus, attended in total, 265 of 349 students, meaning 76% of students involved.

Regarding the changes in the predictor items, self assessment for teamwork, was confirmed growth on all seven dimensions of their measurement scale as expected. Thus, we validated the premise that the involvement of students in specific learning activities and collaborative writing, has increased significant in statistical terms, their scores recorded comparatively to the phase of the pretest and posttest. Confirmation of the hypothesis was achieved as a result of the statistical analysis frequency notes and highlighting differences, namely by identifying these predictors and calculation of averages of t.

Besides the virtues highlighted and quantified in results from practical-action approach, there have been positive testimonials regarding the effectiveness of the proposed approach.

Qualitative changes were surprised in the perception of the phenomenon of computer-supported collaborative learning by revealing transfer in past, shortsightedness CSCL students involved in the experiment, the size information in the idea and relationship group.

Also, students pursuing testimonials on the effectiveness of the proposed strategy work, it is noted that many positive assessments were recorded throughout experimental approach period and post-experimental.

In addition, they noted: increasing individual performance of students in the teaching of vocabulary development, diversification area of interest in the specific disciplines of specialization Pedagogy of Primary and Preschool Education in addressing new themes.

We also noted a resignification of relationships in the work teams. We have therefore established three categories of interactions in the working groups: intellectual, social and emotional.

At the end of the fifth chapter we analyzed the strengths, limitations, opportunities and challenges of this research. Also we identified new directions for action and investigation.

This thesis concludes with chapter conclusions, with bibliography, glossary and appendices.

Among the findings, it notes the following: the vision which has subordinated all this approach supports the design of a modern educational systems is based on the presence of cooperation, from micro group level to the macro level or globally to everything that relates to education.

Glossary describes the keywords identified in this paper and their semantics in the context of this research.

Appendices showcases the echo that some students provided in the online blog by highlighting the number of views, heavy traffic held the first posts to date, the location of those who accessed the blog or keywords after which they found articles blog.

Also placed in the Appendices are images postings settings, the list of authors who have appeared on the blog in comments, issues considered relevant for the functional and pragmatic dimension the blog, dimension that has not a subject of detailed research.

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