THE USE OF NEW INFORMATION AND COMMUNICATION TECHNOLOGIES BY STUDENTS OF PRIMARY AND PRESCHOOL PEDAGOGY SPECIALIZATION FROM THE UNIVERSITY OF CRAIOVA

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Abstract

The idea of this paper started from the study of virtual learning communities (VLCs), in the framework of our postdoctoral research and particularly their impact on the professional identity development, in the field of primary education. The analysis of NICT is essential for providing computer-assisted instruction and evaluation (CBI & CBE), especially in the context of knowledge society in which universities are considered as 'engines of knowledge'. The impact of the new information and communication technologies (NICT) in everyday life and in school is considerable and permanently generates new ways of learning, communication and managing information. We aimed in this paper to identify in which subjects from the curriculum our students will be interested to participate in, particularly those concerning CBI and CBE related activities. The results revealed students' curricular preferences on different levels (CBI – interest and utility and CBE – interest and utility) and could contribute to a strategy that better aligns students' needs and aspirations with academic and job market requirements.

Keywords: new information and communication technologies, computer-based instruction, computer-based evaluation, curriculum preference, curriculum feedback

1. Introduction

The curriculum feedback might be narrowly defined as a response / reaction of learners in relation to a sequence of the curriculum in a certain period. This reaction or response of learners towards the curriculum involves measuring the effectiveness of the curriculum on the one hand, and on the other hand requires probing the interests and preferences of learners and how they harmonize with the curricular experience itself. In a larger sense, the feedback curricular concerns response / reaction of other partners involved in the educational process, such as parents, educational institutions, non-formal, or other important actors in the community (at local, regional, national level) and by extension to all persons who have completed the curriculum sequence that we want to investigate. Curricular feedback investigation in this aspect is more complex and takes the

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form of a pedagogical survey, taking account of the parameters mentioned above, and others (Strungă, 2009).

First, we note that the effectiveness of the curriculum that we mentioned earlier is not necessarily the effectiveness of the curriculum as it is assessed by experts in education science or from the institutions of monitoring and research at national and international level (National Education Ministry and Scientific Research, UNESCO or Gallup for example), but rather the reflection of the experience of learners in relation to a curriculum sequence. We are referring to 'curriculum preferences' as a specific part of the larger category of curriculum feedback i.e. evaluating the curriculum's efficiency (and implementing optimizations) on one hand and on the other hand analyzing learners' interests and preferences. At a concrete level studying curriculum preferences of students means to study the multiple aspects of curriculum as an educational experience, in a broader definition of terms, as it is perceived by the learner following various parameters like: what are the subjects preferred by the students; the duration of the courses; teaching, learning and evaluation methods preferred by the students; the type of educational activities preferred by the students; certification systems and recognizing competences in the context of qualifications, number of transferable credits; the aim of the educational program; Preferred location and time for education activities; education providers; financial resources and the potential to invest in educational activities (Strungă, 2009).

2. Method

Our methodological approach for this study was threefold: first, the analysis of the scientific literature in the field of NICT use in education as basis for CBI & CBE, especially virtual learning communities used for professional identity development; this analysis was done using EBSCO Academic Premiere and ERIC databases; second, testing the Schoology platform (www.schoology.com) in order to explore the potential of new CBI & CBE tools with 60 students from preschool and primary pedagogy specialization from the University of Craiova, Faculty of Letters, Department of Communication, Journalism and Education Sciences, during the first semester of the university year 2015-2016; third, using the Pedagogical Survey Method, Questionnaire Technique; Instrument: Students' Digital Curriculum Preferences Inventory (SDCPI), based on previous studies.

Since our study aims to optimize the digital curriculum for Primary and Preschool Pedagogy specialization, we used the SDCPI questionnaire on a sample of undergraduate students enrolled in the study program organized by University of Craiova (at both Craiova) - 123 students, of which participated in the investigation a total of 71 subjects, 35 from the first year and 36 from the second year. Consequently, the survey's results are representative to students of Primary and Preschool Pedagogy specialization from the University of Craiova. The average age of subjects participating in research was 25 years, 97% of the

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subjects were female and 3% male, 61% resided in urban areas and 39% in rural areas.

The survey was carried out between January and May 2016 with the permission of University of Craiova's Rectorate. We included in this study students from the first and second year of their undergraduate training (primary and preschool specialization) using systematic random sampling. The SDCPI Questionnaire was applied during the seminar activities for the subject "Methodology of Educational Research" and "Theory and Methodology of Curriculum". The research instrument that we used included 10 items and was entitled "Students' Digital Curriculum Preferences Inventory" (SDCPI). The first item (I1) included a list with all the subjects from the preschool and primary education specialization's curriculum and the students were asked to specify how useful and interesting would be to include CBIE for each discipline. All the answers from the first two items were codified on a Likert scale from 1-5 (1 - not useful at all and 5 – very useful, respectively 1 - not interesting at all and 5 – very interesting). The following items (I2 and I3) asked students what subjects they think should be added or removed from the curriculum. Items I4, I5 and I6 included questions regarding the access to various electronic devices (smartphones, laptops, tablet computers, smart TV, desktop), how useful these devices are for their professional development and how much they use them. The last items (I7, I8, I9 and I10) gathered factual data concerning the year of study, age, gender, family and residence. Overall, the questionnaire included 8 closed questions (I1, I2, I5-I10) and 2 open questions (I3, I4) and was based on previous studies in the field of curriculum preferences (Strungă & Bunăiașu, 2013).

We pretested the research instrument at several seminars: "Methodology of Educational Research" and „Theory and methodology of curriculum" and students' observations were included in the second version. The research instrument was also reviewed by five other colleagues from the Department of Communication, Journalism and Education Sciences and their observations were added in the final version of the questionnaire. Before using the questionnaire, we conducted a reliability test in IBM SPSS 24 for SDCPI, and the Cronbach's alpha coefficient was equal to .993.

The aims of our study were the following: to identify the current digital curricular preferences which could be the basis of a needs analysis profile for our specialization; to make use of current digital infrastructure in order to improve the digital curriculum; to recommend new ways for using both CBI & CBE in our classes; to analyze a case-study in which NICTs (particularly VLCs) can be integrated in a larger knowledge management model in order to develop students' professional identity. We also elaborated the following hypothetic statement: if we apply the SDCPI, we will be able to identify students' curricular preferences, at both CBI and CBE level.

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3. Results and conclusions

The subjects students considered could include CBI and CBE activities are the following: Psychopedagogy of Game (CBI interest mean = 4.1, CBI utility mean = 4.1), Information and Communication Technologies (CBI utility mean = 4, CBI interest mean = 4), Theory and Methodology of Curriculum (CBI utility mean = 4, CBI interest mean = 3.9), Planning and Implementation of Educational Projects (CBI utility mean = 3.9, CBI interest mean = 3.8), Educational Management (CBI interest mean = 3.8) and Inclusive Education for Children with Special Educational Needs (CBI interest mean = 3.8). On the other side of the preferences spectrum, the disciplines students considered are not appropriate for CBI and CBE activities are the following: Physical Education (EAC utility mean = 2.2, EAC interest mean = 2.2, IAC interest mean = 2.3, IAC utility mean = 2.3), Philosophy of Education (EAC utility mean = 2.4, EAC interest mean = 2.4), Intercultural education (EAC utility mean = 2.5, EAC interest mean = 2.5), Sociology of Education (EAC interest mean = 2.6), Didactics of Mathematics (EAC interest mean = 2.6). A considerable amount of evidence (Strungă, 2015) suggests that using new information and communication technologies, particularly virtual learning communities have significant advantages for the development of students' competences. Our study highlights the fact we can use SDCPI to identify students' preferences for educational activities including CBI and CBE activities. The answers students provided can be a valuable map for curriculum designers and professors, guiding in the same time decisions at university, faculty or department level. New virtual learning communities such as Edmodo and Schoology can have a tremendous impact on students' performance, by increasing their professional social capital though these networks.

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