CHANGING STRUCTURE OF EDUCATION AND PROFILE OF LEARNERS

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Abstract

The structure of the education suffers a great change both technologically and pedagogically with using the information and communication technologies in education. The changes which occur in the profiles of the learners become effective in experiencing these changes. The educational organizations try to respond different expectations of the learners with their problems by means of integrating the technology into the education and also the cultural differences. Now the learners could be employed with their capabilities of working in collaboration independently and adopting them to the new situations rather than the knowledge and skills owned. The changes which occur in the structure of the education are examined in the light of the profiles of the learners in this study. The study is obtained by means of interpreting the data which are obtained with the survey study which is applied to 1199 learners.
Key words: *profile of learners, ICT, paradigms.*

Introduction

The widespread usage of the information and communication technologies in education brings with the change of the literacy definitions as well. In particular the widespread usage of the internet in the educational applications gave rise to the occurrence of the new learning experiences and the educational paradigms. The meaning of being literate in the 21st century is connected with the sufficiency of using the technology (Looney, 2005). Computers, DVD players, cell phones, game consoles, and iPODs (Apple Computer) etc. take part among the daily school activities of the learners. The result of "no significant difference" makes it necessary to examine different concepts further, such as the learning styles, learning strategies, usage of the interactive technology and content interactions (Bernard, Abrami, Lou, & Borokhovski, 2004; Bernard, Brauer, Abrami, & Surkes, 2004; Clark, 2001; Russell, 1999; Smith, Clark, & Blomeyer, 2005). "The new science of learning" now obliges the learners to have more supervision over their own learning experiences (Huffaker & Calvert, 2003). "Active learning" concept enables the learners to play an active role in the learning process and "metacognition" concept enables the learners to observe and arrange their own learning processes, and "transfer of knowledge" enables the learners to use what they learn in different situations and events (Huffaker&Calvert, 2003). While the realization of the learning process

through the visual interactive materials and games enables the effective learning opportunities, it also makes it easier for the learners to have supervision over their learning processes by remembering the content. These applications which reveal the digital learning influence the curriculum and the instruction. The teachers develop new points of view concerning how to evaluate the student products.

In addition to this, the technologies confront with the responsibility of developing new strategies in realizing the technology supported learning, evaluating the student-centered evaluation and focusing on the foundation of lifetime learning in the educational processes (Bates, 2003; Collis & Moonen, 2001; Cuthell, 2002; Kimball, 1998; Laurillard, 1993; Preston, 2005; Schank, 1997). The social-educational changes of the day oblige helping the learners at the point of their capabilities and skills to advance their occupational developments and planning the continuous education. Learner autonomy, self-reliability, the ability to use a range of strategies to construct their competencies, and having the flexibility to adapt these strategies to new training contexts could be listed among these skills. In addition to this, the portfolio development effort is also one of the important subjects for the digital learners. E-portfolios, as a technological tool, are also called efolio (Cambridge, 2008), webfolio or web portfolio (Chen, Liu, Ou, & Lin, 2001; Kimball, 2003), virtual portfolio (Sorensen & Takle, 1999), and indicate the special virtual areas. E-portfolio which is an educational approach which appears in observing student skills in the 1990's years enables the students to manage their own learning experiences (Kankaanranta, Barrett, & Hartnell-Young, 2001; Niguidula, 1993).

Meeting the diversified needs of the learners, as directed at their lifetime learning needs, is among the fundamental factors determining the dynamics of the education. "Adaptive cycles" is one of the most important factors influencing and determining this situation (Figure 1).
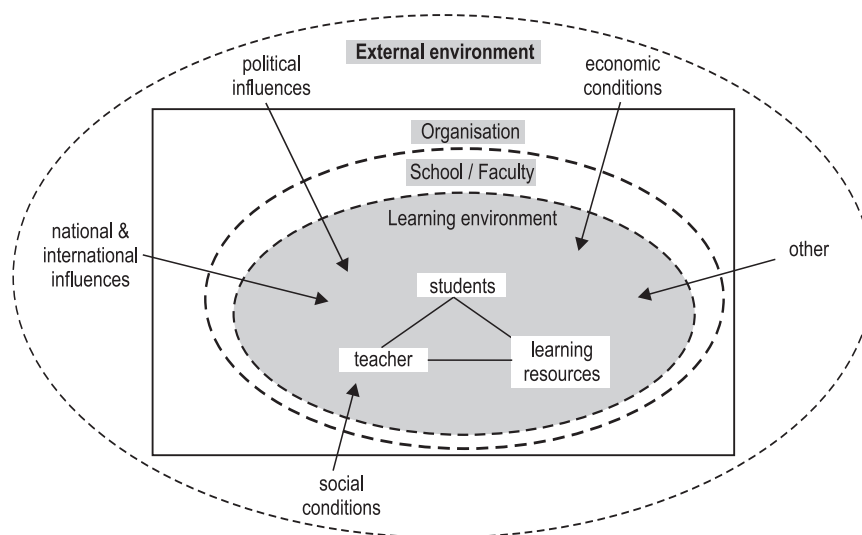

Figure 1. **The relationship between the learning environment, the organization and the external environment (Buchan, 2008).**

As it is seen in the Figure 1, the relationships between the learning environment, organization and external environment form an ecosystem. It is also necessary to understand and put forward the changes which occur in the profiles of the learners and in the structure of the education in this direction. This situation is an indicator of the complicated relationships network as well.

Methodology of Research

In this study, the survey application is performed based on the changing educational structure and learner profiles. The questions in the survey form are developed by the researchers as a consequence of compiling the related writing and the researches relating to the subject. It is mainly benefited from the "Learning with Technology Profile Tool" in the preparation of the survey. There are questions in the survey questions measuring the factors concerning the demographic data and learning environment preferences of the research participants. An important part of the questions in the survey is tried to be given by means of measuring expression degrees given in accordance with very important / not important at all. A pretest study is performed by means of realizing with 60 persons selected with the sampling management at ease. By means of taking into consideration the pretest results, the related corrections are made and the final shape is given to the survey form accordingly. The survey is realized in Eastern Anatolia and Marmara Regions thanks to the availability of the field study opportunities on the subject of application. In the survey application which is realized on total 1199 participants, the opinions of the individuals relating to the vision of learning are examined. This research is basically listed among the descriptive-conceptual researches. It could be said that it has a heuristic nature, in respect of taking up the relationships between the facts. The descriptive nature of the research takes up and describes the problem in question, situations relating to this problem, variables and also the relationships between the variables.

Results of Research

57.5 of the participants of the research are male (n=690) and 42.5 percent are female (n=509). 13.1 percent of the participants (n=157) are master students, 11.8 percent (n=141) are doctorate students, 32.4 percent (n=388) are undergraduate students and 42.7 percent (n=513) are bachelor's degree graduates. Also, 28.9 percent (n=346) take part between 18-24 ages, 28.5 percent (n=342) between 25-30 ages, 21.1 percent (n=253) between 31-35 ages, 12.7 percent (n=152) between 36-40 and 8.8 percent (n=106) between 41-45 ages. The results concerning in which environment the participants prefer to learn are given in the Table-1.

Table 1.   Preferences of learning environments.

Environment	f	%
Blended	464	38.7
Online	372	31.0
Face-to-face	363	30.3
Total	1199	100.0

38.7 percent of the participants want to take part in mixed learning environment, 31 percent in online and 30.3 percent in face-to-face learning environment. The data concerning for whom the participants work are presented in the Table 2.

Table 2.   For whom the participants work.

	f	%
I work hard for myself	1127	94.0
I work hard for my parents or teacher	72	6.0
Total	1199	100.0

A vast majority of the participants (94 %) work for themselves. The opinions of the participants on the learning inspection are given in the Table 3.

Table 3.   Learner control.

	f	%
When my teacher gives an assignment I like to have the exact steps on how to complete it	72	6.0
When my teacher gives an assignment, I like to create my own steps on how to complete it	1127	94.0
Total	1199	100.0

According to the Table 3, the participants want to form their own ways in order to achieve their duties assigned. This situation could be explained with the supervision request of the learners. The opinions concerning the learning visions of the participants are presented in the Table 4.

Table 4.   Vision of learning.

	Very important		Important		Can't tell		Unimportant		Not important at all	
	f	%	f	%	f	%	f	%	f	%
Define learning goals and problems that are meaningful	799	66.6	175	14.6	136	11.3	81	6.9	8	0.7
Involved in setting and using standards of excellence to evaluate whether I've achieved my goals	642	53.5	291	24.3	138	11.5	91	7.6	37	3.1
Discuss learning goals with the teacher	838	69.9	265	22.1	67	5.6	29	2.4	0	0.0
Apply and transfer knowledge to solve problems creatively	878	73.2	181	15.1	92	7.7	46	3.8	2	0.2

To select resources and strategies thoughtfully as well as apply them to unfamiliar tasks	664	55.4	246	20.5	223	18.6	66	5.5	0	0.0
To complete required assignments and are motivated mainly by grades and competition	22	1.8	44	3.7	66	5.5	293	24.4	774	64.6
Actively engaged in my work and take pride in doing a good job	795	66.3	160	13.3	122	10.2	82	6.8	40	3,3
Excited by learning that I spend extra time and effort doing my work	728	60.7	178	14.8	119	9.9	117	9.8	57	4.8
Learning is social, and understand that many problems have multiple points of view.	790	65.9	232	19.3	62	5.2	53	4.4	62	5.2
Respond to recall questions provided by teachers/textbooks	89	7.4	342	28.5	192	16.0	104	8.7	472	39.4
Involve inquiry and/or research, but not as an end in itself	722	60.2	196	16.3	139	11.6	69	5,8	73	6.1
To conduct investigations or produce written or oral presentations for authentic purposes and audiences	521	43.5	419	34.9	104	8.7	104	8.7	51	4.3
Assessment standards and tools are discussed, created, agreed upon, and used by both the teacher and students	683	57.0	206	17.2	153	12.8	106	8.8	51	4,3
Having frequent opportunities to communicate interests and problems to the teachers	694	57.9	189	15.8	127	10.6	127	10.6	62	5.2

Engaged in research and problem solving where there are multiple perspectives	783	65.3	234	19.5	60	5.0	122	10.2	0	0.0
Encouraged to take responsibility for defining problems, setting goals, learning to evaluate and use information resources	634	52.9	399	33.3	55	4.6	56	4.7	55	4,6
To gather information and feedback from multiple sources	795	66.3	202	16.8	100	8.3	51	4.3	51	4.3
Instruction is explicitly designed to solicit, incorporate, and build upon the knowledge, experiences, and perspectives of all students	496	41.4	281	23.4	246	20.5	92	7.7	84	7.0
Groups are formed for specific purposes	830	69.2	158	13.2	105	8.8	53	4.4	53	4.4
Having frequent opportunities to get to know and work with all other students	561	46.8	283	23.6	231	19.3	93	7.8	31	2.6
Primarily work in heterogeneous groups and less often in ability groups	472	39.4	378	31.5	165	13.8	102	8.5	82	6.8
Having opportunities to pose questions, initiate projects, and explore issues linked to the curriculum	703	58.6	143	11.9	142	11.8	140	11.7	71	5.9
Connect students with appropriate experts who also provide models and feedback	575	48.0	450	37.5	132	11.0	42	3.5	0	0.0

The revealing results, according to the Table 4, could be taken up with the following dimensions:

- A vast majority of the learners (81.75 %) want to define meaningful learning targets and problems for themselves; involved in setting and using standards of excellence to evaluate whether they've achieved their goals (77.8 %); discuss learning goals with the teacher (92%). In this respect, it is quite important for the learners to have

learning responsibility. These items which are indicators of the responsibility of learning indicate that the students become self-regulated learners and the learning-education environments are also arranged accordingly in the digital epoch.

- The learners want to apply and transfer knowledge to solve problems creatively (88.3 %); to select resources and strategies thoughtfully as well as apply them to unfamiliar tasks (75.9 %). This situation also indicates the need of the students to develop problem solving strategies continuously and the requirement of transferring the knowledge acquired into the solution of the problems in a creative way. In this respect, it is seen that the learners have a strategic thinking in terms of learning.

- Learners never want to complete required assignments and they aren't motivated mainly by grades and competition (89 %). The learners feel pride in the work they perform (79.6 %) and integrating with the work they perform; and they are having excitement in learning by means of spending extra time while completing their works (75.5 %). This situation indicates that the learners are energized by learning.

- Learning is a social process for the learners and requires multi points of view (85.2%). Starting from this point, it could be said that the collaborative learning has a central role in the today's educational applications.

- Responding to recall questions provided by teachers and textbooks is not significant for half of the learners (48.1 %). Instead, the learners want to be involved in the research / examination processes (76.5 %). That is to say, authentic tasks become more and more important now and they meet the needs of the learners further. Depending on this, the students value the performance-based (78.4 %) and generative evaluation (74.2 %).

- The structures which reveal multi points of view for the learners who prefer the interactive (73.7 %) and generative (83.0 %) environments as the learning models become important.

- It is seen that the collaborative (86.2 %), valuing the knowledge building (83.1 %) and empathetic (64.8 %) get importance as the context of learning.

- The learners prefer to flexible (82.4 %); equitable (70.4 %), and heterogeneous (70.9 %) as grouping.

- As the learner roles, explorer (70.5 %) and cognitive apprentice (85.5 %) reveal as the roles adopted in high levels.

Discussion

This study, in which the changes which occurred in the structure of the education in the light of the profiles of the learners are examined, revealed the desires of the learners for having new learning experiences and livings in a very powerful way. It could be said that the paradigm changes which are experienced in accordance with the constructivist approaches in particular in education started to be matched in the learner profiles. In this direction, the learners want to have more learner control and learner responsibility. This situation also shows us how should be the structural change in education in compliance with the profiles of the learners. Taking care by the learners of the learning responsibility as the vision of learning; energized by learning, strategic and collaborative aspects; authentic, challenging, multidisciplinary as tasks; performance-based and generative factors as assessment; knowledge-building, collaborative and empathetic as learning context seriously emphasize the developments which occur in education in the light of the profiles of the learners. However, to what extent and whether the learners have the appropriate qualifications for this new structure appeared or not is also a subject to be researched.

Conclusion

In this study in which the changes which occur in the profiles of the learners are examined starting from the changed structure of the education, the important points could be stated as follows based on the research findings:

- The learners support the educational structure and approach having engaged learning indicators. In this respect, the learning vision should reflect the responsibility for learning, strategic, energized by learning and collaborative approaches. The evaluations should be authentic, performance-based and generative as a whole.
- Interactive and generative instructional models should be taken up in the uppermost level and then left to the application. Based on this, the learning should be context collaborative, knowledge building and empathetic. It is revealed that the learners work more effectively in the flexible, equitable and heterogeneous groups.

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