[DOI: 10.52547/ijes.3.1.1]

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Iranian journal of educational Sociology
(Interdisciplinary Journal of Education)
Available online at: http://www.iase-idje.ir/
Volume 3, Number 1, March 2020

Analyze the appropriateness of the content of the educational network - information growth with the needs and educational interests of users

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Article history:
Received date: 13 June 2019
Review date: 27 September 2019
Accepted date: 12 October 2019

Keywords:
Network content, educational-information network, growth network, educational needs and interests

Abstract

Purpose: The purpose of this study was to investigate the appropriateness of the content of the educational network - growth information with the educational needs and interests of its users.

Methodology: The present study was applied in terms of purpose and descriptive in terms of implementation method. The research community of students and teachers of the second-high school of Nazarabad city were in the academic year of 2018-19. The sample size was calculated according to the Cochran's formula of 345 students and 105 teachers, who were selected by multi-stage cluster sampling. The research instrument of the researcher-made questionnaire had two forms of student (41 items) and teacher (34 items). Their formal and content validity was confirmed by 10 experts and its reliability by Cronbach's alpha method for both student and teacher forms were 0.98. Was obtained. At the descriptive level, data analysis of central orientation and scattering indicators including mean, standard deviation, frequency and frequency percentage were used, and at the inferential level, t-test was used to test statistical hypotheses.

Findings: The findings of the present study showed that the average content of the educational network - growth information in terms of needs and interests of students and teachers and their five dimensions in both groups including knowledge needs, skill needs, attitude needs, interests and thinking ability and problem solving below It was moderate ($P < 0.05$).

Conclusion: Due to the incompatibility of the content of the educational network - growth information with the educational needs and interests of students and teachers, it is necessary to design and prepare appropriate content after proper and comprehensive educational needs assessment.

Please cite this article as: Shah Mohammadi N. (2020). Analyze the appropriateness of the content of the educational network - information growth with the needs and educational interests of users. **Iranian journal of educational Sociology.**3 (1):1-8.

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1. Introduction

Institutional education plays an irreplaceable role in the training of human resources and the production of social, artistic and cultural capital, and the success and future of any country depends to a large extent on its education (Hess, Maki, 2019). Education is a set of regular and organized activities to achieve valuable goals, so planners should not consider content whose educational implications are not clear (Cai & Kosaka, 2019). By recognizing and discovering one's talents, interests and needs, and nurturing them and moving towards all-round growth, the education organization provides the ground for a successful and efficient life (Caniglia & partners, 2018). The school curriculum should be organized and designed based on the needs and interests of students and teachers. Because the curriculum deals with real things in practice and is different from representing a theory. Therefore, teaching and learning should not be designed in advance by those in power in the curriculum, but teachers should pay attention to the different needs of students in addition to the formal curriculum (Gholami, Saleh Nosrati & Asadi, 2018).

One of the most important aspects of analyzing the needs of students and teachers in educational research is the content of the curriculum (Winer, et al, 2020) and the most important concern of a country's education system today is to create a suitable environment for the growth and excellence of intellectual capital in information and knowledge society. Smart schools are one of the areas that bring information and communication technology into the field of education with a comprehensive and holistic model with predetermined goals (Lo, et al, 2020). With the advent of virtual schools, the terms science, teaching, teacher, student, curriculum, and school are being redefined, and traditional education has given way to the use of new technologies for successful education (Ibrahim, 2015). Virtual environments are one of the most important educational spaces, and each country uses this space in accordance with its educational perspectives (Chiu & Chiu, 2017). There are theories about the content and use of educational networks. For example, Reeves and Reeves (1997) considered the ten dimensions of education philosophy, learning theory, ideal orientation or goals, task orientation, source of motivation, role of role, metacognitive reinforcement, participatory learning, cultural sensitivity and structural flexibility as dimensions of interactive learning. Introduced on the web, Kearsley & Schneiderman (1998) stated that learners in the teaching and learning process must face effective, creative, meaningful and original learning and participate, so in a web-based learning environment to facilitate engagement and participation of learners in using the post. Electronics, Internet conferencing, web databases, virtual groups, audio-visual conferences, and other software are emphasized. In another study, Liber & Johnson (2008) reported that virtual learning environments allow the instructor to use software to create self-organizing capacity, independence, and content formation in learners, and to adopt a learner-centered approach to learning, life, and system dynamics Maintained training. In Iran, the primary goal of the virtual environment plan is to create diversity and expand capacity in the country's education with the help of information and communication technology and meets the needs of today's and tomorrow's society for better quality and flexibility and lower costs (Safavi, et al, 2007). Virtual learning environments that can have a huge impact on schools, students, and teachers are not only difficult to implement, but also include an effective teaching design process in which computer technology and other media are used after proper needs assessment and design and presentation with the right teaching methods (Innocenti, et al, 2019).

According to the role of modern education, the Education Research and Planning Organization of the National Iranian Schools Network Project or Roshd Educational Network Information Development in 2003 with goals such as accelerating, simplifying and deepening the process of teaching and learning students in line with the goals of education, Increasing the audience's access to information, strengthening access to equal educational opportunities, paying special attention to students' individual differences in the teaching and learning process, developing and developing audience capabilities and abilities for active and effective life in the information society, increasing productivity in education, daydreaming And launched the effectiveness of education in the information society (Mohammadi, et al, 2009). The main users of this

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national network of Iranian schools or educational network - inform the growth of students and teachers (Khadem Nematollahi, 2011). This national network has encyclopedic sections, scientific activities of e-learning, academic guidance, questions and tests, associations, links, final exams, news and announcements, photo album and soft software bank (Mohammadi, et al, 2009). According to the specific goals and expected functions of this network, it is an educational website. The website consists of a collection of web pages that all follow a common theme and are created by a natural or legal person.

The website has features such as content organization, content delivery, navigation and typing, page design, etc. and emphasizes components such as audience and attention to them, educational goals, teaching and learning methods, accurate and explicit site goals, proper organization of information, capabilities Access to all audiences, the optimal use of graphic elements, providing clear and understandable information, the possibility of communication between the audience and the creator and attention to intellectual property (Hamidzadeh, et al, 2011). In the information network, certain people communicate with each other and act like a group because of common needs. If this network is tailored to the needs of users, they will pay special attention to the network and in order for the importance and credibility of the network to continue in the minds of users, their needs should always be considered, so pay attention to the role of this network in education and Learning is very important and research is needed to improve its quality (Azimi, 2005). Growth network uses the capabilities and capacities of new technology such as the Internet, cyberspace, etc. as one of the components of the educational package to help other components in achieving educational and training goals. In order to achieve the value, educational and training goals of the Ministry of Education, this network is moving towards strengthening, developing and completing the national curriculum (Akbariania, 2009).

Due to the fact that Roshd Educational-Information Network was designed in 2003 by the Education Research and Planning Organization, but little research has been done on it. For example, Hamidzadeh, et al (2011) conducted a study entitled Evaluation of the National Network of Iranian Schools (Improvement) based on the criteria of designing educational sites and comparing it with other educational sites. Sharing, video conferencing, book publishing, user-blogging, and more can be found on other sites. The network's performance in using tools such as audio, video, animation, gaming and entertainment can be considered appropriate. In the test section, the growth network, like other networks, uses only multiple-choice questions. In the information section, the network uses the tools of the message of the day, news and information, and the photo gallery, and has made full use of the four tools provided for the appearance of educational sites. In terms of user guidance, this network has a good performance compared to other networks and has provided additional features for users. Khadem Nematollahi (2011) while conducting a study entitled "Investigating the use of the national school network of Iran in the implementation of educational programs among teachers, principals and female students of high schools in Tehran in the academic year 2011-12 " concluded that female teachers and students are very Few and few principals used Iran's national school network. Also, Mohammadi, et al (2009) conducted a study entitled Electronic Education Evaluation of Roshd Network based on the design criteria of educational sites and concluded that the educational goals of this network are undesirable and written content, teaching and learning methods, evaluation methods, web design. And the general part of the site was relatively good. Akbariania (2009) While comparing the use of Iranian national school network in teaching-learning activities between teachers and male students of high schools in Tehran in the academic year of 1988-88, it was concluded that teachers and male students are very few from the national school network. Iran used and teachers used this network more than students. In addition, Azimi (2005) conducted a study entitled "Growth Network Evaluation from the Perspective of Users of the Third Year of Improvement Network High School User" and presented a practical model. Users are at the desired level. Other findings show that user control and management in the network is at a desirable level, but the amount of information and awareness of

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teachers from the network and user participation in the production of network content and group projects and activities is low.

On the one hand, due to the fact that about twenty years have passed since the establishment of the educational-information network, little research has been done on it, and on the other hand, for the success of this network, it is necessary to study it from many different angles. One of the factors that increase the use of any virtual network, including the growth network, is the appropriateness of its content to the needs and interests of users, and no research on the appropriateness of the content of the educational network – Improvement Information, which is a national network. It has not been done. Therefore, one of the major research gaps in the growth network is not examining the appropriateness of its content with the needs and interests of its users, especially students and teachers, and conducting this research can be an effective step to improve the quality of this network and design appropriate programs. Also, due to the increasing growth and effectiveness of various educational networks in training and the importance of users' needs and interests in the success of networks, it is necessary to review the content of the educational network - growth information based on their needs and interests. Therefore, the aim of this study was to investigate the appropriateness of the content of the educational network - growth information with the educational needs and interests of its users.

2. Methodology

The present study was applied in terms of practical purpose and descriptive in terms of implementation method. The research community of students and teachers of Nazarabad secondary school located in Karaj province in the academic year of 2018-19, the number of students was 3438 and the number of teachers was 145. The Cochran's formula was used to determine the sample size, so the sample size was calculated for 345 students and 105 for teachers, who were selected by multi-stage cluster sampling. In this sampling method, first Nazarabad city was divided into five northern, southern, eastern, western and central sections and three sections were randomly selected and then among the schools of all three sections, a number of schools were randomly selected and all students and teachers of selected schools They were selected as the sample. The process of conducting the research was that after coordinating with the education officials of Nazarabad city and stating the goals, importance and necessity of the research, the list of schools of the second secondary school was prepared and after dividing Nazarabad into five sections, three sections were selected and then a number of schools by random method. After selecting students and teachers to participate in the research, they were selected and selected for the selected sample, stating the purpose, importance and necessity of the research and were asked to answer the researcher-made questionnaire with the utmost care. It should be noted that they were told that there was no right or wrong answer and that the best answer was one that indicated their true status.

Student Forms Questionnaire Needs and Educational Interests: This form of the questionnaire by the researcher with 41 items and five dimensions of knowledge need (12 items), skill needs (5 items), attitude needs (7 items), interests (6 items) and thinking ability and problem solving (11 items) was designed. The items are graded using a five-point Likert scale (1 = I am very opposed to 5 = I strongly agree), and a higher score on the whole and the dimensions of the questionnaire indicate that they have more of that feature. The formal and content validity of the students' form has been confirmed by 10 experts and experts and the reliability of Cronbach's alpha method for the whole and its dimensions is reported in Table 1.

Teacher Forms Questionnaire Needs and Educational Interests: This form of the questionnaire by the researcher with 34 items and five dimensions of knowledge need (7 items), skill needs (4 items), attitude needs (7 items), interests (3 items) and thinking ability and problem solving (13 items) was designed. The items are graded using a five-point Likert scale (1 = I am very opposed to 5 = I strongly agree), and a higher score on the whole and the dimensions of the questionnaire indicate that they have more of that

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feature. The formal and content validity of the students' form has been confirmed by10 experts and experts and the reliability of Cronbach's alpha method for the whole and its dimensions is reported in Table 1.

Table1. Total number of items and reliability and dimensions of the questionnaire for students and teachers

Tool	Speech and reliability in students		Speech and reliability in teachers	
Then the needs of knowledge	(item 12) 12 to 1	0/94	(item 7) 7 to 1	0/96
Then skill needs	(item 5) 17 to 13	0/97	(item 4) 11 to 8	0/94
Then attitude needs	(item 7) 24 to 18	0/92	(item 7) 18 to 12	0/98
Next interests	(item 6) 30 to 25	0/98	(item 3) 21 to 19	0/97
Then the ability to think and solve problems	(item 11) 41 to 31	0/95	(item 13) 34 to 22	0/96
The whole tool	(item 41) 41 to 1	0/98	(item 34) 34 to 1	0/98

Data were analyzed at both descriptive and inferential levels in SPSS software version 19. At the descriptive level for data analysis, the central tendency and scatter indices including mean, standard deviation, frequency, and frequency percentage were used, and at the inferential level, the T-test was used to test statistical hypotheses

3. Findings

The present study was conducted on 345 students and 105 teachers, and the frequency and percentage of the population-cognitive characteristics of students in Table 2 and teachers in Table 3 were reported.

Table2. The frequency and percentage of cognitive characteristics of the student population

Frequency	Abundance	Levels	Variables
80/87	279	Male	Gender of students
19/13	66	Female	
48/41	167	Tenth grade	Student base
29/85	103	Eleventh grade	
21/74	75	Twelfth grade	

According to Table 2, most male students (80.87%) were in the tenth grade (48.41%).

Table3. Frequency and frequency of teacher population-cognitive characteristics

Frequency	Abundance	Levels	Variables
82/86	87	Male	The gender of teachers
17/14	18	Female	
10/48	11	26-30	Teachers age (year)
7/62	8	31-35	
14/28	15	36-40	
40	42	41-45	
27/62	29	46-50	
14/29	15	Associate	Teacher education
53/33	56	B. A	
32/38	34	M.A	
3/81	4	1-5	History of Teachers (Year)
3/81	4	10-6	
15/24	16	11-15	
18/09	19	16-20	
35/24	37	21-25	
23/81	25	26-30	

According to the findings of Table 3, most male teachers (82.86%) were 41-45 years old (40%), had a bachelor's degree (53.33%) and had a history of 11-25 years (35.24%). The findings of the T-Tek sample test to assess the appropriateness of the content of the educational network - growth information with the educational needs of students and teachers have been reported in Table 4.

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Table4. T-Test Exam Results to Examine the Content Fitness of the Educational Network - Growth Information with the Educational Needs of Students and Teachers

Sig	df	t	Standard deviation	mean	group	Variables
0/001	344	-4/17	0/59	2/86	students	Educational needs and interests
0/001	104	-13/28	0/52	2/32	teachers	
0/001	344	-6/14	0/63	2/78	teachers	Knowledge needs
0/001	104	-15/52	0/54	2/17	teachers	
0/001	344	-4/09	0/63	2/85	students	Skill needs
0/001	104	-6/24	0/80	2/50	teachers	
0/001	344	-2/77	0/64	2/90	students	Attitude needs
0/001	104	-10/77	0/65	2/31	teachers	
0/001	344	-2/94	0/69	2/88	students	Favorites
0/001	104	-14/71	0/55	2/20	teachers	
0/001	344	-3/12	0/68	2/88	students	Ability to think and solve problems
0/001	104	-8/66	0/68	2/24	teachers	

Based on the findings of Table 4, the statistical value of T-test in the variable of educational needs and interests of students and teachers and all its dimensions including knowledge needs, skill needs, attitude needs, interests and ability to think and solve problems is less than T-table value i.e. 1.96. Therefore, it can be said that the content of the educational network - growth information in terms of educational needs and interests and its dimensions in terms of both students and teachers is at a lower than average level ($P < 0.05$).

4. Discussion

Given the increasing role and importance of virtual networks in the education and mission of the educational network - growth information to improve the quantity and quality of education, the aim of this study was to evaluate the appropriateness of the content of the educational network - growth information with the educational needs and interests of its users. The findings of the present study showed that the content of the educational network - growth information based on the needs and interests of education and its dimensions including knowledge needs, skills needs, attitude needs, interests and ability to think and solve problems in terms of students and teachers was not at a lower level. It was too moderate. Although the study did not examine the appropriateness of the content of the educational network - growth information based on educational needs and interests, but these findings in some respects with the findings of research by Hamidzadeh, et al (2011) on the difference between growth network and other networks in using tools such as dialogue Text, discussion groups, shared resources space, video conference, the possibility of publishing a book, the possibility of user participation, blog and taking advantage of multidisciplinary exams, Khadem Nematollahi (2011) on very low use of teachers and female students and low use of principals, Mohammadi, et al (2009) on the unfavorable educational goals of Roshd Network and the relatively desirable written content, teaching and learning methods, evaluation methods, web page design and public section of the site, Akbariania (2009) based on very low use of teachers and students The boy from the National Network of Iranian and Azizi Schools (2005) was in line with the low level of information and awareness of teachers about the growth network and low participation of its users in the production of network content and group projects and activities.

In explaining the findings, it can be said that improving the technological literacy of users includes the dimensions of knowledge, attitude, methods of thinking, skills, practice and capacities, which are important features of educational websites. Because a person with technological literacy must have basic knowledge of technology, have a positive attitude, have basic practical skills and capacities such as working with computers and identify and repair technological tools to solve problems, and finally be able to critically think about technological issues. And act accordingly. Therefore, the growth educational network needs to be designed to help improve the technological literacy of students and teachers

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scientifically and practically. Based on the findings of this research, it is necessary to make changes in order to achieve this important goal. Network administrators should also try to adapt the methods used to the educational goals and content and design the learning activities in a way that engages learners in the learning process. Also, the specific goals of each lesson should be stated clearly. In other words, use actionable and measurable verbs to articulate minor goals so that both the assessment process is easier and the learners know exactly what to expect at the end of each small and large training course. Another important point is that basic thinking begins when a person is faced with a problem and is unable to find a quick and lasting solution based on their own experiences. One has to go through a certain process to be able to find the right solution and solve the problem by implementing it. Problem-solving skills are among the basic skills needed in life, and the concept of life is tied to the acquisition of this skill, that is, dealing with problems and trying to solve them. Therefore, the growth network needs to provide the grounds for fostering the power of thinking and problem-solving ability in students and teachers. For this purpose, he can use short films and animations in the field of life skills, and by uploading such content on the site, he can cultivate the ability to think and solve problems in students and teachers. In addition, given that the process of education requires interest and its dimensions are not limited, so it is natural that if this educational interest exists in the whole society, educational growth will be more successful. As a result, Roshd's educational network needs to pay special attention to the interests of its users, especially students and teachers, when planning and compiling educational content. For this purpose, it can put more scientific articles and conversations that are appropriate to the needs and interests of users on the site to change the overall attitude of users, especially students and teachers on a particular topic.

One of the most important limitations of the research is to limit the research community to Nazarabad city. The need for research prevented it. Due to the limitations, it is suggested that this research be repeated in other cities and provinces and that the findings be compared with the findings of the present study. Another suggestion, due to the importance of the growth network, is to examine it from other angles, such as examining the effectiveness of this network on site satisfaction, academic motivation, academic achievement, and so on. Also, other suggestions include using interviews to gather more detailed information and receiving written letters from high-ranking education officials for better collaboration. According to the findings of the present study, in order to adapt and adapt the growth network to the needs and interests of users, it is recommended to use simple, short and expressive sentences in writing network content. Increase the loading speed of site pages and window openings, and upload articles and scientific conversations that are of interest to users and more on the site. The site uses short videos and animations in the field of life skills to strengthen thinking ability and problem solving. Learning activities and assignments should be designed to fit the goals and content so that learners are involved in the learning process. The general objectives of each lesson on educational goals should be reported and explained in the growth network. Use different types of initial, formative, and final evaluation.

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