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The Relationship betweenSmart SchoolswithImproving the Quality of Students' Learning and Creativity from the Viewpoint of Teachers in Zahedan

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Abstract
Introduction:*The use of technology in education is one of the important aspects of the development of information and communication technology as a major development in the social and professional life of the 21st century. The aim of this study was to investigate the effect ofsmart schools on improving the quality of students'learning and creativity from the viewpoint of teachers in boys' schools in Zahedan.*
Methods:*This research is applied and a descriptive-survey research. The statistical population of the research was the teachers of boys'schools in Zahedan, and the sample size was 300 teachers that selected as simple random sampling method. The data gathering tools werethree questionnaires include smart school questionnaire, learning quality questionnaire and children's creativity questionnaire, whose validity and reliability were confirmed and calculated. Data were analyzed by descriptive statistics and inferential statistics (Pearson Correlation Coefficient) using SPSS-16 software.*
Results:*Findings showed that there was a significant relationship between smartschool and learning quality with a significant level of 0/001. Also, there was a positive and significant relationship between smart school and creativity of students with a significant level of 0/002. Finally, there was a significant and positive relationship between the quality of learning and creativity of students with a significant level of 0/022.*
Conclusion*: The results showed that the smart schools is effective in improving the quality of students' learning and creativity from the viewpoint of teachers of the Zahedan city. So, by learning and promoting the smart schools in all schools of the country and having advanced computers, can improve the quality of Students' learning.*
Keywords:*Creativity, Learning Quality, Smart School, Student, Teacher*

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I. Introduction

The concept of formal education in each society has been linked with social systems since the ages of the past. In fact, education is an essential tool for the development of society, and in this regard, need to committed teachers who has emphasis on the power, understanding, and analyzing, reasoning and creative thinking of the students (1). Today, in the era of accelerating information and communication, the most important factor and indicator of the life of societies and the progress of countries, istheir scientific and educational development. The prerequisite for this, on the one hand, is the evolution and dynamism of the educational structure, which is due to the development and enhancement of the culture of that society, and, on the other hand, the provision of conditions in which the schools and the educational centers can with acquire the powers and necessary responsibilities, to provide ongoing interaction and business exchange with the world to meet the country's scientific and educational needs (2).

A variable that can make learning a part of the progress of science and technology is smart school. Smart School is a deliberate action in the context of education development document and the development document of Information and Communication Technology. the smart school is a school where the implementing all processes, including management, supervision, control , Teaching, learning, educational resources and educational assistance, evaluation, documents and office affairs, communication and the basis for development, are based on ICT (Information and Communication Technology) and also in such schools, environment of Teaching and learning founded on the individual differences and multimedia content and research-based, with emphasis on knowledge production (3).

The smart School is a physical school and its control and management is based on computer technology and the network, and the content of most of its lessons is electronical and its evaluation and monitoring system is intelligent. In such a school, asmart student develops and changes their resources and executive capacities by spending time on topics in a continuous way, and this is a point that allows school officials to adapt to the changes and increase the level of student information, and prepare them for new information (3).

In smart schools, teachers can design new courses based on student needs and interests, using new databases and software programs, or change and modify existing courses. Students in these schools determine the speed of learning. Also, in these schools, learning hours are not limited to school hours, and students at any time they want to have their desired classes through telecommunications computer programs, the role of teachers in these schools from Students' education and assessment is changed to follow their personal training and, as a result, will find more opportunity and time to address their professional growth and development programs (include studying, communicating and constructive and effective interaction with colleagues, improving the level of science and improving teaching skills, etc.). Assessment of students in smart schools Instead of being divided in intervals (at the end of each chapter or semester), they are performed every day and continuously, and some of these tests are both online and remote (3).

Learning is the insight from the understanding of the learning position and also through the discovery of relationships between the components of the learning position. Behavioral theories generally see learning as a change in apparent behavior. Conversely, for cognitive theorists, learning is the acquisition and restructuring of cognitive structures through which the information is processed and stored in memory (4). On the other hand, creativity is a massive and mutant transformation in human thought, so that one can combine causal factors in a new way (5). Children's creativity is more influenced by educational programs and educational environments than others. From this perspective, pre-school situations and programs are one of the most important factors in reducing or enhancing creativity in children. Since children experienced the most educational activity and the most sensitive stages of creativity development in primary school environment, therefore, the programs and the environment of the primary school, the proper attitudes and appropriate behavior with children, play a significant role in the growth and prosperity of their creativity (6).

Today, the growing volume of knowledge and information, the rapid depreciation of textbooks, the rapid change of societies and the unpredictability of the future, require the need for continuous education and learning instead of intermediate training. On the other hand, continuing education requires a new learning method, which helps individuals to independently apply for knowledge and use for life (7). The use of technology in education is one of the important aspects of the development of information and communication technology as a major development in the social and professional life of the 21st century, which has opened a new horizons for educational institutions such as schools and universities (8).Also, the use of information technology and multimedia has become an integral part of the educational system and knowledge management in computer information systems has been considerably taken into consideration. Education is the main pillar of sustainable development in each country, and e-learning is one of the newest, most effective and most reliable methods for the development of individual and organizational education (9-10). Therefore, the importance and necessity of abandoning traditional methods and strategies in education and teaching, and paying attention to new educational strategies and practices is revealed. The widespread use of information and communication technology in the education process, along with the evolution of the world-wide educational approaches, has provided the ground for the formation of smart schools (9).

Understanding students' attitude toward e-learning can lead to a better learning environment for education (11). Smart school is a new educational approach that will bring fundamental changes to the learning process through the integration of information technology and curricula. In this approach the role of the teacher as a guide and not a transfer of knowledge, and the role of students as active, creative, critical and participant, rather than a member passive consumer of knowledge, and also evaluation system as process base and not outcome-base will change. Smart schools will have a huge transformation in educational systems, so that students can use information technology in all areas of education including management and curriculum (12). The ultimate goal of activating smart schools is to educate anemployees with computerized skills and information literacy that can meet the needs of life in the new information world. Smart Schools includes components are designed to stimulate the curiosity of students and active their participation and with coordinating the efforts of students, teachers and administrators in a comprehensive and combined environment, canmeet all their educational need (13).

Increasing the quality of teaching-learning in schools, continual updating of knowledge in the country in line with the development of science in the world, the creation of a platform for continuous learning of students in and out of school, the return of scientific authority to teachers, the education of students for the present and future, continuous engagement Parents and teachers, and the use of modern technologies in teaching and learning, are among the reasons for the need for smart schools (14).

The present study aims at studying the effect of smart classroom on improving the quality of students' learning and creativity from the viewpoint of teachers of boys' schools in Zahedan. Since the subject has not been conducted in Zahedan schools, so far, this research is unique in its kind and it is hoped that the results of this research could be effective in increasing the knowledge and management insight of the education authorities of the country, especially in the use and use of smart classes in the learning process, and on the other hand, it has enabled the bosses, deputies and managers in the field of education in the future educational planning and programming.

II. Research Methodology

The present research is applied and descriptivesurvey study. This research was conducted in the second half of 2018. The statistical population of the research is teachers of boys' schools in Zahedan. The random sampling method was simple and the sample size was 300 teachers based on the Cochran formula. The data gathering method was fieldwork and research tools were three questionnairesinclude smart school questionnaire (15), learning quality questionnaire (16) and children's creativity (17).

A) School Smartquestionnaire by Rostami (2012) consists of 106 questions and 6 dimensions (using computers in personal work, using computer and electronical resources in teaching, teaching methods in learning, rate of using information resources, educational system and barriers for application Multimedia equipment in the teaching process). The questionnaire's questions are composed of a Likert scale (very large, high, moderate, low and very low). The way of scoring is from 5 to 1, respectively. The minimum score is 106 and the maximum score is 530. Validity of the questionnaire was confirmed and its reliability was 0/72 which indicates the utility of the questionnaire.

B) The quality of students' Learning questionnaire by for RahmaniAkhkand(2010) includes 25 items and 5 dimensions (attitudes and perceptions, knowledge acquisition and interconnection, knowledge development and improvement, and the use of a significant amount of knowledge and mental habits) that has a Likert scale (low, moderate, High). The minimum score is 25 and the maximum score is 100. Validity of the questionnaire has been confirmed and its reliability has been calculated using Cronbach's alpha of 0/80, which indicates the utility of the questionnaire.

C) The Children's Creativity Questionnaire by Saatchi (2010) includes 30 questions and 4 dimensions of creativity (fluidity, initiative, flexibility and expansion). Validity of the questionnaire has been approved by the experts and its reliability has been calculated using Cronbach's alpha test of 0/75, which indicates the utility of the questionnaire.

After data collection, descriptive and inferential statistical techniques were used to analyze the data. In order to describe the data and observations, statistical descriptive methods such as frequency distribution tables, descriptive charts and central and dispersion indicators were used. Afterdata collecting, reviewing, and encoding, researcher create database and entry data in SPSS ver.16 software. Also, Pearson correlation coefficient, Cronbach's alpha coefficient were used to analyze the data.

III. Results

The results showed that 16% of teachers in boys' schools in Zahedan were less than 30 years old, 26% were 31 to 35 years old, 23% were 36-40 years old, 23% were 41-45 years old, and 12% were 46 years and older. Also, 13% of teachers had a teaching experience of less than 5 years, 18% were 6 to 10 years old, 33% were 11 to 15 years old, and 36% had more than 15 years of teaching experience. And 2% of teachers rated school smart at low level, 74% at moderate level and 24%at high level. 5% of the teachers rated the quality of the students' learning at low level, 64% at the moderate level and 31% at high level. Finally, 6% of the teachers rated the creativity of the students at a low level, 62% at the moderate level, and 32% at high level.

The main hypothesis: the smart schools have a significant relationship with improving the quality of students' learning and creativity from the viewpoint of teachers in boys' schools in Zahedan.

Regarding the results of Table 1, the correlation between smart schools and improving the learning quality of students is 0/710. Also, the correlation between smart schools and students' creativity is equal to 0.539. Considering that the level of significance of the tests is less than 0/05, it can be said that the relationship between smart schools and improving the quality of students' learning and creativity is significant and the main hypothesis of the research is accepted. It should be noted that, with regard to the positive correlation coefficients, the relationship between smart schools and improving the quality of learning and student creativity are directly (Table 1).

Hypothesis 1: There is a significant relationship between school smart and improving the quality of students'learning from the viewpoint of teachers in boys' schools in Zahedan.

Regarding the results of Table 1, the correlation between school smart and improving the quality of students' learning is 0/710. Considering that the level of significance of the tests is less than 0/05, it can be said that the relationship between school smart and improving the quality of students' learning is significant. It should be

noted that due to the positive correlation coefficient, the relationship between school smart and improving the quality of students' learning is directly (Table 1).

Table 1: Pearson correlation test results for Main and sub hypotheses 1, 2 and 3

Variable	Test	Intelligent Schools	Improving student learning quality	Creativity
Intelligent Schools	The correlation coefficient	-	0/710	0/539
	Significance level	-	0/001	0/002
Improving student learning quality	The correlation coefficient	0/710	-	0/229
	Significance level	0/001	-	0/022
Creativity	The correlation coefficient	0/539	0/229	-
	Significance level	0/002	0/022	-

Hypothesis 2: There is a significant relationship between smartschools and students 'creativity from the viewpoint of teachers in boys' schools in Zahedan.

According to the results of Table 1, the correlation between smart schools and student creativity is equal to 0/539. Considering that the level of significance of the tests is less than 0/05, it can be said that the relationship between smart schools and students' creativity is significant and the second hypothesis of the research is accepted. It should be noted that due to the positive correlation coefficient, the relationship between smart schools and student's creativity is directly (Table 1).

Hypothesis 3: There is a significant relationship between improving the quality of learning and creativity of students from the viewpoint of teachers in boys' schools in Zahedan.

According to the results of Table 1, the correlation between improving the quality of learning and students' creativity is equal to 0/229. Considering that the significance level of the tests is less than 0/05, it can be said that the relationship between improving the quality of learning and creativity is significant and the hypothesis 3 of the research is accepted. It should be noted that due to the positive correlation coefficient, the relationship between improving the quality of learning and students' creativity is directly (Table 1).

IV. Discussion

The main hypothesis: smart schools have a significant relationship with improving the quality of students' learning and creativity from the viewpoint of teachers in boys' schools in Zahedan.

Regarding the confirmation of sub-hypotheses, it can be admitted that there is a significant relationship between the smart schools with improving the quality of students' learning and creativity. The statistical analysis showed that improving the quality of students' learning and creativity has a positive and significant relationship with the smart schools.

Hypothesis 1: There is a significant relationship between smart school and improving the quality of students'learning from the viewpoint of teachers in boys' schools in Zahedan.

Indicators should be considered in order to improve the quality of learning of students. These indicators include attitudes and perceptions, acquisition and interconnection of knowledge, mental habits of students, and etc. If attention to these indicators, we can take steps to improve the quality of the students' learning. In order to increase the amount of learning and improve the quality of it, smart schools are a good way. If smart of schools implemented correctly, it can increase students' learning. According to the results obtained for each of the dimensions of the quality of learning, it can be admitted that there is a significant relationship between the smart of schools and the dimensions of improving the quality of learning. In order to improve the smart of schools, IT infrastructure, learning environments based on multimedia contents, computer facilities, and so on should be provided to be successful in this way. Student learning quality can be improved when smart school is implemented desirably. This improvement depends on having different dimensions of smart school.

According to the statistical analysis, there is a significant relationship between variables. The positive correlation coefficient also indicates a direct and positive relationship.When the different dimensions of smartare properly provided and student learning opportunities are provided, the relationship between these dimensions can be considered positive. So, it can be admitted that there is a positive and significant correlation between the dimensions of smart school and the dimensions of quality of learning.

Hypothesis 2: There is a significant relationship between smart schools and creativity of students from the viewpoint of teachers in boys' schools in Zahedan.

Creativity alone cannot have the right meaning. Factors such as initiative, flexibility, etc. can mean it. When a person has a particular initiative and flexibility in achieving his goals, he is a creator. To enhance this kind of creativity in students, a method known as smart school will be effective. Smart Schools have made students more practical and with use the new technology, makes them more creative.

In this regard, it can be admitted that the smart of schools and the dimensions of creativity have a significant relationship with each other. The results show a significant relationship between smart school and student creativity. The results also show a significant and positive relationship between smart school and students' creativity dimensions. Dimensions such as school management, teachers' empowerment in teaching with smart learning method, can be considered as effective factors in students' creativity. Today smart has been tested in some schools, research shows that smart school has a significant relationship with students' creativity. In this study, according to the results, this issue was confirmed. The results showed that the dimension of learning environment based on multimedia content did not has a significant relationship with students' creativity.

Hypothesis 3. There is a significant relationship between improving the quality of learning and creativity of students from the viewpoint of teachers in boys' schools in Zahedan.

Learning quality is an important factor in the creativity of students. If the quality of learning improves, it can be an effective step in the creativity of the students. The dimensions of creativity are derived from study, learning, implementation of thought and ideas. In any creative project, it will be successful if learning and studying done accurately.

The results showed a significant relationship between improving the quality of learning and the creativity of the students. The results also showed a significant and positive relationship between improving the quality of learning and the dimensions of creativity. Learning is based on the acquisition of knowledge. Once knowledge has reached a reasonable amount, it can be used meaningfully. Although some of the knowledge and learning needs to be corrected, learning can be improved by more studying and more practice. In this regard, learning improvement leads to the creativity of students during their education. In this case, creativity can show itself and succeed. Creativity is meant for any success in the implementation of practical (inventive) and scientific (Olympiad) projects.

The results of the relationship between each dimensions of learning with creativity showed that the dimensions of attitudes and perceptions, the acquisition and the interconnection of knowledge, and the significant use of knowledge has a significant and positive relationship with students' creativity. But the dimension of knowledge development do not has a significant relationship with mental habits.

V. Conclusion

Study results showed that smart schools have a significant relationship with improving the quality of students' learning and creativity, therefore, to better implement smart school, recommend the following suggestions to managers and planners:

- By learning and promoting the smart schools in all schools of the country and having advanced computers, can improve the quality of Students' learning.
- By conducting talent tests through the computer system and smart testing software and other tools, can be measured students' creativity and strengthened it.
- Teachers' quality of teaching, up-to-date facilities in schools, and academic level of schools, are among the things that can improve the quality of learning and increase students' creativity.

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