Iranian journal of educational Sociology
http://www.injoeas.com/
(Interdisciplinary Journal of Education)
Available online at: http://www.iase-idje.ir/
Volume 5, Number 2, September 2022

The Effect of Providing a Technological Integration Package with Course Subjects in Improving Digital Literacy and Social-Emotional Competence of Fifth Grade Elementary Students

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Article history:
Received date: 2021/6/06
Review date: 2021/10/17
Accepted date: 2022/01/13

Keywords:
Technological Integration Package, Digital Literacy, Social Emotional Competence, Students

The aim of this research was the effect of providing a technological integrated package with curriculum subjects in improving digital literacy and social-emotional competence of fifth grade elementary students. The research method with a quantitative approach of semi-experimental type (quasi-experimental) with the experimental and control group design, the statistical population includes 457 students from the evaluated schools of the district and approved by Alborz province, who were selected by random sampling of 58 people. The research tool included two questionnaires, the Dundee University Digital Literacy Inventory (2016) based on the Open University Digital Skills Framework and the Boyatzis Social-Emotional Competence Inventory (2007). that the validity of both questionnaires was confirmed by experts and reliability was estimated based on Cronbach's alpha coefficient for digital literacy (0.942) and for social-emotional competence (0.90); Then it was distributed. The obtained data have been used with descriptive statistics (frequency table, graph, mean, standard deviation) and inferential statistics (Kolmogov Smirnov test, boxplot, ANOVA test, Lone test and path analysis method). The data were analyzed using Amos software version 24 and SPSS version 22. The results showed: 1) There is no significant relationship between social-emotional competence and digital literacy. 2) Among the dimensions of social-emotional competence, self-awareness (R=0.566), self-management (R=0.290) has a positive and significant relationship with digital literacy, and relationship management (R=0.348) has an inverse relationship with digital literacy. And it has meaning. 3) Among the dimensions of social-emotional competence, only the dimension of social awareness (R=0.133) has no significant relationship with digital literacy. 4) Among the dimensions of social-emotional competence, the highest impact is related to the dimension of self-awareness and the lowest is related to the dimension of self-management.

Please cite this article as: Moghimi Firozabad M, Mahnaz Ghorbani M. (2022). The Effect of Providing a Technological Integration Package with Course Subjects in Improving Digital Literacy and Social-Emotional Competence of Fifth Grade Elementary Students, **Iranian Journal of Educational Sociology.** 5(2): 226-240.

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[DOR: 20.1001.1.26453460.2022.5.2.19.9]
[DOI: 10.61186/ijes.5.2.226]

1. Introduction

The 21st century is the digital era and controlling important technological developments. In this century, people's skills and competences have lagged behind the inevitable technological growth. Based on this, people are expected to become digital citizens with the development of digital literacy, who continuously update themselves and adapt to changes. Digital literacy is a multifaceted concept that goes beyond skill-based activities and includes cognitive and technical skills.

Therefore, in this century, students' learning should go beyond just mastering the main subjects in schools. Students need more support to develop social-emotional competence skills that include; Self-awareness (recognition and recognition of emotions, self-efficacy), self-management (impulse control and stress management, seeking help), social awareness (empathy, respect for others), relationship management (communication, building relationships and responsibility) and decision-making (problem solving, individual, social and moral responsibility). In addition to this, contemporary schools, especially in developed countries, pay much attention to the development of students' social-emotional competencies, which includes involving students in moral social responsibilities, citizenship education, and making them become confident and active members of society. (Ahmed, Hamza and Abdullah, 2020).

The necessity of living in the digital era and acquiring its skills on the one hand and on the other hand, the unique role of education in preparing and empowering people, especially children and teenagers, to live in different contexts has caused the education systems to In the world, due to COVID-19, the promotion of digital literacy of students should be included in their programs (Pakhrel and Chetri, 2021). After the outbreak of the epidemic, the education of 1.2 billion children has been disrupted by the school, which makes digital literacy education an important priority for them to use technology to improve their classrooms inside and outside (Lake and Lepoglavis, 2019). As a result, the need to teach technology to children and promote innovative learning and strengthen life skills and cognitive independence is particularly prominent in this period (Di Giacomo, Vittorini and Lacasa, 2018).

Also, the impact of digital games on children's leadership skills, the process of correctly recognizing the situation and planning, following a path and goal in children should not be ignored. The importance of this issue increases when we know that life in the digital age and virtual space is not easy, and using the digital space without having the necessary skills and literacy leads to social or even financial damage (Rodriguez Anders, Mendezlopez, John and Perez Hernandez). , 2018). Also, cyber victimization causes irreparable damage to the young generation, such as Internet fraud, which harms their growth and development (Farahani, Moghadam and Ghorchian, 2018). On the other hand, the lack of social competence hinders the social growth to the norm and the establishment of positive and constructive relationships in students (Jones, Champion and Woodward, 2013) and ultimately, they cultivate digital citizens who have inappropriate norms and irresponsible behavior in the use of technology. have (Ribel, 2015).

Research considers digital literacy to be the cause of change in the ways of studying, thinking and work of teachers and students and the necessity of educational contexts to improve the skills of teachers and students in evaluating appropriate data in the mass of information available in digital environments. They prioritize their work. This is despite the fact that the development of social-emotional competence becomes the basis for better performance and enthusiasm and perseverance and positive approaches to learning (Ziv, 2013). In addition, the use of technology and its integration with course subjects has a positive effect on cognitive development and creates an integrated learning for students (Zhuvan, Shauna and Walters, 2022 and Bisak and Kanan, 2019).

By recognizing the life in the digital age of the children of this country, the deputy of elementary education aims to provide the teachers and students of the country with the proper training and learning of digital skills, to provide them with an effective and useful presence and life in the "digital age". . Therefore, it has offered a revolutionary package "planning and digital literacy for teachers and students" or a technological integration package. In the implementation of this plan, the emphasis is on the comprehensive approach and comprehensiveness of the axes of the educational model. Also, the promotion of digital competence in 5 axes,

[DOR: 20.1001.1.26453460.2022.5.2.19.9]
[DOI: 10.61186/ijes.5.2.226]

the impact of computers, computational thinking, communication networks and system design, cyber security and digital literacy, according to the age and educational level of students, as well as the design and implementation of training in the primary period in a consolidated and consistent manner. It is considered with the requirements of childhood and with the approach of play and learning. An attempt has been made to combine digital literacy with the subjects of students' competence based on the creation of knowledge, attitude and skills and finally with mastery according to the needs and age of elementary school students in order to provide an effective contribution to increasing productivity and preventing mere consumerism. Creating a digital citizen equipped with the necessary competencies.

The exposure of the education system to the corona virus and the expansion of virtual education caused the virtual space to be the main platform for teaching and learning of students. It should be kept in mind that understanding technology is essential for people in our society such as writing, reading and math (Hart et al., 2019). Also, young generations show great interest in learning digital literacy. Despite such conditions, studies show that our children and teenagers are educated, learn, spend their time in the digital and virtual space, etc., but they are not prepared as they should be for life in this age and space, and it is necessary To acquire the capabilities or competencies of this era. Learning digital skills should be integrated into students' curriculum with skills as a part of subject-oriented activities (Palilnez, 2019).

Therefore, by creating new methods for teaching and learning and combining it with course subjects, we can provide enthusiasm and attract students to education in the virtual platform and prevent students from dropping out of school (Ryabchenko et al., 2021).Paying attention to this issue and its necessity and importance can be considered from the perspective of upstream documents with regard to supporting documents, teaching and learning of programming and digital literacy in the elementary school. According to the above contents, the deputy of elementary education, recognizing the life in the digital age of the children of this country, It has tried to combine digital literacy with curricular subjects to provide students' competence based on creating knowledge, attitude and skills, and finally with mastery according to the needs and age of elementary school students in order to provide effective help to increase productivity and prevent mere consumerism. and create a digital citizen equipped with the necessary skills.

Therefore, considering the sensitivity of the education system on the one hand and the complexity of today's world on the other hand, the necessity of educating students who are more aware and equipped with basic skills along with how to think and develop critical thinking and critical understanding in communities, constructive interaction with others Active participation is felt according to the values, skills and attitudes and careful examination of the content of the media in order to reduce the negative impact of the media on the general public, especially students. Because if we don't pay attention to the mentioned things, we will have students who respond more to external stressors and less to internal values (for example, responsible decision making, self-control, attention to others) and finally, at the school level, we will see a decrease in progress. We will be academic (Jones, Greenberg and Crowley, 2015). Media literacy education is often expressed in the direction of developing students' critical thinking abilities and is basically related to the development of "critical awareness". Benefiting from critical thinking gives students the ability to free themselves from the values and ways of thinking that the media intends to impose on them and instead of submitting to media messages, towards Selectivity and instead of being subject to visual pleasures and emotional responses, they move towards rationality and skepticism in their interactions with the media (Nasiri, Bakhtiari and Hosseini, 2017).

Therefore, the importance of this research goes back to its thematic importance, which is a new project in the Ministry of Education, and it is necessary to measure its impact on important variables such as digital literacy and social-emotional competence in the field of practice by conducting field research, so that it can be Strong research support took more effective steps in the field of implementation and in formulating effective strategies. Integrated approaches aim to provide opportunities for learners to get acquainted with diverse methods and topics in diverse fields by providing a specific organization of education.Integration

[DOR: 20.1001.1.26453460.2022.5.2.19.9]
[DOI: 10.61186/ijes.5.2.226]

means trying to create communication, connection and finally integration in students' learning experiences (Mehrmohammadi, 2011).

In today's teacher training curriculum, the skill of using information and communication technology is one of the skills needed by teachers in the information age (Azizi et al., 2017). This technology has capabilities that help facilitate the teaching and learning process and provide many facilities to teachers. Costa (2010) believes that Fava (information and communication technology) creates a new dimension in teaching and enables teachers to do things that cannot be done in traditional classrooms. For this purpose, the International Technology Education Association (ITEA) has defined technological literacy as human innovation in action as well as the ability to use, manage, evaluate and understand technology. Technological literacy includes three dimensions of knowledge, ways of thinking and acting, and capacities. Based on this, it can be said that a technologically literate person must have basic knowledge in technology, have basic practical capacities such as working with computers and identifying and repairing technological tools (in general, he must be able to provide an approach to solving problems).

Finally, be able to think critically in technological issues and act accordingly. Now, the deputy of elementary education has offered a revolutionary package "planning and digital literacy for teachers and students" or a technological integration package. In the implementation of this plan, the emphasis is on the comprehensive approach and comprehensiveness of the axes of the educational model. Also, the promotion of digital competence in 5 areas (the impact of computers, computational thinking, communication networks and system design, cyber security and digital literacy) according to the age and educational level of students, as well as the design and implementation of education in the elementary school It is integrated and in accordance with the requirements of childhood and with the approach of play and learning. Digital literacy is defined as the ability to acquire, organize, and evaluate the information needed by actively using digital technology so that people can recognize the correctness and incorrectness of the information and obtain new information from the correct information they obtain and finally use them in share digital platforms (Direki, Ekbulot, Simek, 2019).

The main root of social-emotional competence is in people's positive perception of themselves or self-esteem, which leads to the improvement of individual activities. Based on the studies, the concept of competence as a noun refers to the level of proficiency and ability. Oxford culture considers this phrase to be the knowledge and ability to do things successfully, and it is considered the attribute of people who are proficient and capable. Emotional and social competence is a multi-dimensional and complex concept that includes skills, attitudes and values related to the ability to recognize and manage emotions and feelings, understand the views of others, formulate positive social goals and solve problems, and use a variety of interpersonal skills. It includes relevant developmental tasks for effective and ethical management (Bahrami Dehdar, 2014).

Due to the novelty of the research subject, there were no studies directly related to the subject. Finally, researches related to each of the variables are reported in this section. Research by Darzi, Yaqoubi and Rashid (1400); "The relationship between attachment to school and social competence with students' bullying with the role of empathy as a mediator"; with the aim of investigating the relationship between school and social bond with students' bullying, empathy is the mediator role, and the research method is of comparative causal type. The results of the research show that when social competence increases, bullying decreases because they believe that bullies lack the skills to understand others and show little ability to empathize. Therefore, the ability to empathize allows a person to communicate with the world around him and help others and prevent harm to others.

Research by Farahani, Zamani and Ghorchian (2018); With the title "Investigation and determination of factors affecting the life skills of the digital generation", it has been carried out with an exploratory purpose and a descriptive-survey method. The findings showed that there is a significant difference between the current and desired situation and life skills and the prioritization of the life skills of the digital generation from the point of view of students and teachers: personal skills - media and information literacy - economic literacy and 21st century literacy.

[DOR: 20.1001.1.26453460.2022.5.2.19.9]
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In the research of Kazem Pourian and Abdoli (2015); "Digital Literacy: A Solution to Cover the Digital Gap and Cultivate a Digital Citizen" which examines the state of the digital divide in today's era and provides solutions to reduce this gap among digital citizens. By explaining the concepts of digital literacy and the digital divide, the causes of the digital divide were investigated. The findings show that setting educational programs, building culture, and using the experiences of pioneer countries are effective in solving this gap.

In the research of Allameh and colleagues (2014); "Comparison of self-efficacy in interacting with peers and social competence in male students with aggressive and normal behaviors", with the aim of comparing self-efficacy in interacting with peers and social competence in aggressive and normal male students of the fifth and sixth grades of elementary school, Shahr Ahvaz was done in a multi-stage random method. The findings showed that the level of self-efficacy in interacting with peers and social competence in the aggressive group was lower than in the normal group, and the lack of self-efficacy in interacting with peers and social competence can be considered as one of the important factors in the occurrence of aggressive behaviors. be placed

In the research (Dewey et al., 2022) and Casa Iten and Polater (2021); "Teaching values using the digital storytelling method in the fourth grade"; With the aim of investigating the use of digital storytelling in teaching values in the fourth grade, it has been done with qualitative research using digital storytelling (DST). DST method improves students' knowledge to use values and internalize and strengthen values. The results of this research show the impact of technology and the development of story writing skills. In this way, students become aware of their characteristics and start using technology more effectively. Also, students understand the relationship between values and digital stories with events that have happened or are likely to happen, so that they can use these values in their real life. DSW is a combination of pedagogy and technology to enhance students' ability and acquire different subject knowledge that prepares students to learn new cognitive concepts and combine different semiotic systems and combine narrated audio texts, images, videos and other multimedia elements for Facilitates the creation of media artifacts. In this method, multifaceted knowledge and technology such as: text, sound, image, videos are combined and artificial intelligence encourages students to discover knowledge and finally create their own stories using digital skills. Create through video making and graphic design. By using DSW, the skills of information, communication, cooperation, creativity, critical thinking and problem solving, which are digital skills, are strengthened.

In the research of Ryabchenko et al. (2021); "Educational technologies for creative growth in the digital age"; It was done with the aim of identifying the impact of information technology clubs on the development of students' creative abilities, and a questionnaire was used to develop students' creative abilities. This research describes technology clubs in Russia. These technology clubs teach students the necessary skills to organize their free time so that they can learn how to spend time usefully on the computer and the Internet. Also, these clubs have helped the child to have a deep understanding of school subjects and success in tests. The mission of creative clubs is to train creative engineers who can use new technologies for inventions, implement them in their daily lives and prepare children for future jobs. The performance of these clubs has had a positive result and has been able to solve the problem of technological competencies at different stages of life and increase the motivation to choose engineering jobs and support the personal and professional autonomy and creative thinking of children and teenagers in the digital society. Some educators have reported that technology content is attractive and diverse and very effective in teaching, but technology is not adaptable to different skills and is ineffective for social levels. It also causes delay in speech in students. Professional development strategies for digital literacy and examining teachers' personal barriers while teaching with technology have stopped learning new skills. This is despite the fact that physical transactions of students to teach functional skills can make them more capable and it cannot be used as an alternative activity.

In Pavlovich's research (2021); "Developing Digital Literacy in Digital Natives, Insights into Tennessee High School Digital Literacy Levels"; With the aim of examining the overall growth of students in digital literacy scores, it was done with the help of pre-test and post-test. The findings showed that the students of this high school experienced a significant growth in digital literacy after completing a digital literacy course, and the

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positive attitude of students has a significant relationship with digital literacy in improving their situation. This skill is of great importance for the workforce and sustainable continuation in economic growth. Online learning options and targeted use of technology in the classroom make students able to adapt and fill future jobs and acquire the necessary skills. . He considers the role of media literacy and digital literacy in building a student-centered learning environment as positive and considers it related to the achievements of social functions.

In the research of Skoda, Alegre and Casa (2021); "Emotional development questionnaire of primary education"; with the aim of expressing the impact of emotional development on thinking and decision-making and directing thoughts and actions. This research was carried out with emotional competence questionnaire in five dimensions, which is awareness of emotional regulation, emotional autonomy, social competence and life competence and well-being in boys and girls aged 9 to 13. The findings of this research show the benefits of emotional training in improving the attitude towards oneself and others, along with assertiveness, resilience and reducing destructive behaviors.

In the research of Quiles, Moyano and Cortes (2021); "Motivational, emotional and social academic factors in children aged 6-12"; with the aim of investigating the relationship between academic achievement and motivational factors (motivation, self-concept and self-esteem), emotional factors (emotional intelligence, emotional competence and emotional well-being) and social factors (social intelligence, social competence and social skills), which the role of motivational factors , explains the vital, social and academic. The results of this research indicate that the role of social-emotional factors of students in the final years of elementary school is mandatory because this facilitates the level of knowledge and skills and leads to academic progress in the next educational stage.

In the research of Elko Olakaya (2020); "A study on the relationship between the desire for lifelong learning and the level of digital literacy"; With the aim of investigating the relationship between the lifelong learning tendencies of the volunteers and their level of digital literacy, it has been done by relational screening method. He reached this conclusion, the higher the level of lifelong learning of people, the higher their level of digital literacy. In Demeni's research (2020); "Digital life stories in the fourth year of primary school"; With the aim of designing an intervention to express the skills that affect digital storytelling and children's skills, it was able to strengthen the text production skills and digital creativity of primary school children with the help of digital storytelling. Digital storytelling was first introduced by Joe Lambert and colleagues to increase the skills of writing text production and text comprehension, critical thinking and learning motivation, and they consider it very suitable for processing curriculum content. DST is a competency-enhancing program for elementary students that helps enrich vocabulary and develop production skills in writing. In this method, children have the possibility to create their own life stories by interacting in the stories they have heard, as well as finding related images, writing appropriate text and processing everything using digital technology, and finally share with your classmates. In the research of Salvatelli (2019), "difference in academic progress based on the levels of social-emotional skills in fifth grade students"; It has been done with the aim of investigating social-emotional skills, i.e., academic self-efficacy, perseverance and self-control, mastery orientation and social competence. The results show that the nature and importance of social-emotional competence in children and adolescents is of high importance and should be integrated in school methods, programming, educational design and culture. Because one of the ways to reduce risky behaviors is education and use of social-emotional skills. Also, the teaching of social-emotional skills should be directed towards academic goals in order to have the necessary effect on students. Keep in mind that the role of social-emotional competence in the academic progress and learning of students should not be ignored.

In the research of Al-Zahrani, Al-Harbi and Aloudani (2019); "Effect of social emotional competence and academic achievement and behavioral development of children"; It has been done with the aim of the importance of social emotional competence on children's development. The results show that the development of social-emotional competence is the cause of children's academic and behavioral success and also increases students' reading, writing and vocabulary skills. In Morkel and McLaughlin's research (2015);

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"Promoting social-emotional competence in young children and strategies for teachers" has been carried out with the aim of investigating the factors affecting children's social-emotional interactions. The results of this research found three factors: culture, temperament and social interactions to be effective on children's social competence. Teachers can foster the development of social-emotional competence by actively facilitating their supportive relationships with children and encouraging them and the positive and strong relationships of supportive environments based on it. Based on what has been said, the question that is raised is that, considering the digitization and the subsequent expansion of individualism in today's society, the presentation of this integrated package of technology with academic subjects can lead to the improvement of digital literacy? And has it been able to overshadow individualism and lead to improved social-emotional competence and prove its claim to foster a digital citizenry that develops one's interactions in the digital age?

2. Methodology

This research has a quantitative approach of semi-experimental type (quasi-experimental) in terms of purpose, application, and method of data collection, with the design of the experimental group and the use of pre-test and post-test. The statistical population consists of 457 students from the evaluated schools of region 3 approved by Alborz province in 1400; And in the following, 58 students (according to the number of students in each class) have been randomly selected as a sample. In order to collect data, the tools used are two questionnaires, the first questionnaire is related to the digital literacy model of the University of Dundee in 2016 based on the digital skills framework of the Open University, which consists of 35 questions in 5 sections, Section 1 - understanding and participation in digital practices. 9 questions), part 2-finding information (8 questions), part 3-critical evaluation of information, online interaction and online tools (5 questions), part 4-information management and transfer (7 questions), part 5-digital collaboration and sharing (6 questions), and questionnaire The second is related to emotional-social competence - Boyatzis (2007) which uses 72 items with 5 Likert-type options, self-awareness with 6 items, self-management with 24 items, social awareness with 12 items and relationship management with 30 items. Its validity has been measured using confirmatory factor analysis and its reliability has been measured using Cronbach's alpha coefficient. In this research, descriptive and inferential statistics were used to analyze the data obtained through the questionnaire. At the level of descriptive statistics (mean, standard deviation, frequency and prevalence percentage) it was used to describe the demographic characteristics (gender, education level, age and work experience).

3. Findings

Table 1. Descriptive statistics of variables of digital literacy and social-emotional competence in two experimental and control groups

			Frequency	Low border	high border	mean	Standard deviation
Digital literacy	experimental Group	pretest	29	55	160	62/113	20/30
		posttest	29	135	162	41/149	78/8
	The control groups	pretest	29	55	146	72/116	64/23
		posttest	29	85	146	03/118	88/19
Social emotional competence	experimental Group	pretest	29	206	233	217	32/8
		posttest	29	206	233	58/222	47/7
	The control group	pretest	29	206	232	55/217	17/8
		posttest	29	200	238	41/220	32/10

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Table 1 shows the descriptive statistics of the variables of digital literacy and social-emotional competence in the two experimental and control groups. According to this table, the experimental group has an average of 113.62 and a standard deviation of 30.20 in the digital literacy pre-test, and an average of 149.41 and a standard deviation of 8.78 in the post-test. The control group has an average of 116.72 and a standard deviation of 23.64 in the digital literacy pre-test, and an average of 118.03 and a standard deviation of 19.88 in the post-test.

Also, in the social-emotional competence pre-test, the experimental group has an average of 217 with a standard deviation of 8.32, and in the post-test, an average of 222.58 and a standard deviation of 7.47. The control group also has an average of 217.55 and a standard deviation of 8.17 in the pre-test of social-emotional competence, and an average of 220.41 and a standard deviation of 10.32 in the post-test. To check the normality of the data, the Kolmogov Smirnov test was used, the results of which are presented below.

Table 2. Kolmogorov-Smirnoff test to check the significance of data

Variable	test	Groups	Z	Significancy
Digital literacy	pretest	experimental Group	134/0	197/0
		Control group	161/0	053/0
	pretest	experimental Group	133/0	20/0
		Control group	122/0	20/0
Social emotional competence	pretest	experimental Group	133/0	20/0
		Control group	136/0	180/0
	pretest	experimental Group	124./	20/0
		Control group	120/0	20/0

The above table shows the Kolmogorov-Smirnoff test to check the significance of the data obtained in the experimental and control groups and before and after the experiment and for the two variables under investigation. According to the results of the Z test, it is not significant for any of the variables in both control and experimental groups, before and after the experiment, and the significant value is higher than 0.05 ($P < 0.05$).

Table 3. ANOVA test to investigate the linear relationship between 1 before and after for the variable of digital literacy

Model	Sum of square	df	Mean of square	F	significancy
regression	291/3725	1	291/3725	770/8	004/0
Residual	295/23786	56	755/424		
Total	586/27511	57			

According to the above tables that show the ANOVA test and regression coefficients to check the linear relationship between the before and after measures of the digital literacy variable, the value of the f statistic is 8.770, which is significant at the 0.004 level. Also, the beta value for the digital literacy variable is equal to 0.368, which is significant at the 0.004 level. The significance of these two statistics shows the linearity of the

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relationship between the pre- and post-measures of digital literacy. Accordingly, this assumption is also confirmed.

Table 4. Regression coefficients

Model	Sum of square	df	Mean of square	F	significancy
regression	*580/436*	*1*	*580/436*		
Residual	*920/4181*	*56*	*677/74*	*846/5*	*01/0*
Total	*50/4618*	*57*			

According to the above tables, which show the ANOVA test and regression coefficients to investigate the linear relationship between 1 before and after for the social-emotional competence variable, the value of the f statistic is 5.846, which is significant at the 0.01 level. and the beta value for the social-emotional competence variable is equal to 0.307, which is significant at the 0.01 level. The significance of these two statistics shows the linearity of the relationship between the pre- and post-measures of social-emotional competence. Accordingly, this assumption is also confirmed.The same variance of observations between groups

To check this assumption, Levein test was used, the results of which are presented below.

Table 5. Levein test to examine the equality of variance of observations between test groups for digital literacy and social-emotional competence

	F	Df 1	Df 2	Significancy
Digital literacy	284/0	49	8	997/0
Social emotional competence	705/1	33	24	089/0

The above table shows the results of Levein test to check the homogeneity of the variance of the observations between the experimental and control groups for the variables of digital literacy and social and emotional competence. According to that, the value of F test for digital literacy is equal to 0.284 and for social and emotional competence is equal to 1.705, both of which are not significant.

-Slope homogeneity of regression lines. In order to check this assumption, the interaction between experimental groups and covariance variable (pre-test scores) has been used. The results of which are presented below. the effect of interaction between the experimental groups and the variance variable to check the homogeneity of the slope of the regression lines for the digital literacy variable is presented. According to the results of the table, the interaction effect between the experimental groups and the covariance variable is significant with F value equal to 51.257 at the 0.001 level, and this indicates the heterogeneity of the slopes of the regression line for the digital literacy variable. Although this assumption has not been confirmed for digital literacy, since the rest of the assumptions have been confirmed, covariance analysis can be performed

Table 6 The results of covariance analysis to compare the digital literacy post-test scores in the experimental and control groups

Source	Sum of square	df	Mean of square	F	significancy	Etta effect
Pre-test scores	890/4636	1	890/4636	664/29	001/0	350/0
Digital literacy	185/15189	1	/15189	173/97	001/0	63/0
Major effect	110/8597	55	185311/156		001/0	

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In the table above, the results of covariance analysis are presented to compare the post-test scores of digital literacies in two experimental and control groups. According to the results of the table, there is a significant difference between the average scores of the digital literacy post-test after removing the effect of the pre-test. Because the value of F is equal to 173.97, which is significant at the level of 0.001. Therefore, it can be said that combining digital literacy with academic subjects has been effective in improving the digital literacy of fifth grade students. The amount of this effect or difference is equal to 0.63. This means that 63% of the individual differences in digital literacy post-test scores were related to the effect of combining digital literacy with academic subjects.

4. Conclusion

The results of this research are consistent with the research results of Kazem Pourian and Abdoli (2015), who use digital literacy as a means to cover the digital gap and develop digital citizens, and consider it a suitable solution to reduce this gap among digital citizens. In addition to digital literacy, it is effective to set educational programs, create culture and use the experiences of pioneer countries to eliminate this gap. It is also consistent with the research of Ryabchenko et al. (2021) who used information technology clubs with the help of educational technologies to develop the creative abilities of students in the digital age. In fact, these technology clubs, like the reform package of the Ministry of Home Affairs, teach students the necessary skills to organize their free time, so that students can learn how to spend time usefully on the computer and the Internet. Also, these clubs help the child's deep understanding in school subjects and achieve success in tests and train creative engineers who can use new technologies for inventions, implement them in their daily lives and prepare the child for future jobs. It is worth paying attention to. It is also consistent with Pavlovich's (2021) research, which has developed digital literacy by taking a digital literacy course and has created a significant growth of digital literacy in digital natives (high school students undergoing digital literacy training).

Integrating digital literacy with academic subjects in improving digital literacy also with Demani's research (2020) which deals with the impact of digital storytelling and children's skills and was able to strengthen the text production skills and digital creativity of primary school children with the help of digital storytelling and the research Elko Olakaya (2020) agrees that the higher the lifelong learning level of people, the higher their digital literacy level.

The second question: To what extent is the integration package of technology with academic subjects effective in improving the social-emotional competence of fifth grade elementary students?

The results also show that there is no significant difference between the average scores of the social-emotional competence post-test after removing the effect of the pre-test. Because the value of F is equal to 1.083, which is not significant at the level of 0.302. Therefore, it can be said that combining digital literacy with academic subjects has not been effective in improving social-emotional competence of fifth grade students. The low value of the coefficient, which is equal to 0.019, also confirms this issue.

In this field, no related researches have been conducted and the only research that is somewhat consistent with the results of the present research in this field is the research of Farahani, Zamani and Ghorchian (2018) which investigated and determined the factors affecting the life skills of the digital generation and Prioritizing the life skills of the digital generation, from the point of view of students and teachers, are individual skills - media and information literacy - economic literacy and the literacy of the century. Just as in the present study, the integration of digital literacy with academic subjects has not been effective on social and emotional competence, in the research of Farahani, Zamani and Gurchian, no place has been considered for social and emotional competence.

The result obtained from the present research with the research of Devi et al. (2022) and Casa Itno Polatar (2021) which, with the help of the DST method of knowledge, promotes students to use values and internalize and strengthen values, and the impact of technology and It shows that the development of story writing skills

[DOR: 20.1001.1.26453460.2022.5.2.19.9]
[DOI: 10.61186/ijes.5.2.226]

is inconsistent. This is while the reform package of the Ministry of Home Affairs claims to improve skills and communicate effectively with others.

In Morkel and McLaughlin's research (2015); He considers three factors: culture, temperament and social interactions to be effective on children's social competence. Teachers can promote the development of social-emotional competence by actively facilitating their supportive relationships with children and encouraging them and the positive and strong relationships of supportive environments based on it.

In general, the main goal of this research was the effect of combining digital literacy with academic subjects in improving digital literacy and social-emotional competence of fifth grade elementary students. After implementing the integrated technological package in 5 weeks, focusing on the 5 axes of digital literacy (the impact of computers-computational thinking-communication networks and system design-cyber security-digital literacy) and reviewing the results and analyzing the research questions, the result can be described as follows. stated, this development package led to the improvement of digital literacy in fifth grade elementary students, but it did not prove its claim of improving digital citizen competencies to effectively communicate with others and improve social and emotional competencies. Also, according to the thematic relationship of the components of the digital literacy questionnaire of the University of Dundee with the axes of the digital literacy competency plan, it shows the components of finding information - communication networks and system design - critical evaluation of information, online interaction and online tools - cyber security that It includes the individual dimensions of a citizen, it was approved, while the management and transfer of information - collaboration and digital sharing - understanding and participation in digital methods, which mostly include social components, are less approved.

it should further examined the dimension of social awareness and its lack of meaning with digital literacy and technological integration package. As a result, the technological integration package has performed better in the emotional dimension of competence than in its social dimension. As a result, the technological integration package has performed better in the emotional dimension of competence than in its social dimension.

On the other hand, examining the components of social competence, we come to the conclusion that the integrated package of technology, the component of self-awareness (recognition and how our feelings and emotions affect performance and conscious behavior) and the component of self-management that includes: achievement orientation (effort to achieve the standard) superior) and adaptability (flexibility in dealing with change) and emotional self-control (examination of feelings, emotions and confused stimuli) and positive outlook (continuity and persistence in pursuing goals despite obstacles and prohibitions) in students does Meanwhile, the component of communication management, which includes conflict management (discussion and conflict resolution), leadership and coaching (actively paying attention to the developmental needs of others and relying on their abilities) and influencing others (having a positive influence on others: persuasion and persuading others) and inspirational leadership (inspiring and guiding individuals and groups) and teamwork (working with others towards a common goal) has an inverse and significant relationship with the technological integration package and with increasing digital literacy of these components decreases.

Also, when we discuss digital literacy and its integration with course subjects and curriculum, we reach a point called e-learning, which includes 4 components; Technology, pedagogy, individual (individual-socio-economic differences, different intelligences such as social and emotional intelligence and learning styles) and society. As in his research (Jehan, Zanganeh and Pak Sarasht, 2017), he gives importance to considering three important dimensions of knowledge, attitude and ability. Also, for the effective and successful use of electronic learning technology in education and learning, it is necessary to know the readiness and attitude of students for the successful implementation and implementation of such a method (Dartaj, Rajabian and Elah Karmi, 1400).).

If we don't consider the 4 components of technology, pedagogy, tomorrow's society in connection with e-learning, e-learning and education will remain better and the lack of impact of the integrated technological package on the component of social awareness, which includes sympathy and empathy (understanding the

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perspectives and feelings of others and active attention) their concerns) and organizational awareness (reading the power relations and emotional flows of the group) can be seen as neglecting these components.

Of course, the meaningful relationship of the digital literacy variable in the 3 dimensions of social-emotional competencies in maintaining positive social relationships of students with family members, peers and teachers and helps students in managing their thoughts to make decisions. have a better grip in doing things and finally increases their resilience in the action stage. Also, the basis of the advantage of social and emotional competence that deals with the cultivation, flourishing and perfection of human beings should be considered in education and its integration with other plans because the root of solving many psychological and social problems lies in the amount of psychological capital of individuals and self-awareness. It is the self-management of people, and the strengthening of these dimensions in social and emotional competence and its integration with digital literacy, which is a common language with the new generation, should not be ignored. Also, when the student is aware of himself and reaches social awareness; He tries to meet his and others' needs as best as possible and displays a higher level of performance. Because in the direction of self-regulation, equipped with attitude and digital skills, the student will become a proactive and active citizen who will show a positive and constructive behavior and control his position in dealing with obstacles and negative emotions, and finally work commitment and We control the student's efforts to achieve the goals. This is exactly what is proposed in the technological integration package as the goal of the plan. The implementation of this package without considering the dimensions of social and emotional competence will not lead us to such citizens. In this regard, the unique role of education is in creating basic skills that are necessary for education and productive employment, social participation and empathy, and creating management ability to solve personal, social, academic and economic challenges and increasing technical and business skills. And finally, digital skills are not hidden from anyone; Because any effort and improvement and promotion of the effectiveness of the contents in educational and educational spaces provides a better and more effective service to the society and the surrounding environment, and therefore worthy students in realizing the desired effectiveness and responding to The surrounding environment educates.

One of the implementation limitations of this research was access to the target schools in this plan. Considering that this plan included 5% of students and teachers, and the target schools and teachers and their managers should have been entitled to the characteristics determined by the Ministry of Home Affairs. There were restrictions in choosing schools. Also, due to the fact that only the information related to fifth grade students has been examined, generalizing the results to other age groups should be done with caution. One of the research limitations of this research is the inability to control the interactive effect of other influencing variables on the quality of digital literacy due to the combination (virtual-face-to-face) of the educational classes in the research.

Based on the findings of this research, it is suggested that this project be taken out of the pilot mode and be widely implemented throughout the country, and finally it will be taught as a separate book or by taking into account parts of the main books. to be In addition to holding informal training courses such as: self-awareness-self-management-social awareness-communication management with revision of emotional intelligence, self-perception in schools to adapt and create cultural insight by gender, environment and climate in order to become user-oriented. be paid technologically. It is suggested that the senior officials of the country's primary school office prepare a road map for digital literacy, taking into account the dimensions of social and emotional competence; Like the fundamental transformation document, people should pay attention to the preparation and acceptance of technology, so that school teachers, especially psychologists, with the help of this road map, prepare the ground for students' cooperation in order to acquire the necessary skills and competences in this era. It is suggested to be careful in choosing the titles of the technological package. For example, changing the title of cyber security to privacy and personal protection; Because cyber security is more related to the field of management, while the concepts raised in the technological development package are more related to personal protection.

[DOR: 20.1001.1.26453460.2022.5.2.19.9]
[DOI: 10.61186/ijes.5.2.226]

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[DOI: 10.61186/ijes.5.2.226]