

www.ijemst.net

Effects of Folklore Teaching Constructivist and Computer-Assisted **Teaching Method**

Bazar Rakhmetova 🗓



Arkalyk Pedagogical Institute named after I. Altynsaryn, Kazakhstan

Aibek Kaliyev 🗓



Arkalyk Pedagogical Institute named after I. Altynsaryn, Kazakhstan

Aisaule Duisebekova 🗓



Arkalyk Pedagogical Institute named after I. Altynsaryn, Kazakhstan

Zina Koldasbaeva 🕛



Arkalyk Pedagogical Institute named after I. Altynsaryn, Kazakhstan

Zaure Galymzhanova 😃



Arkalyk Pedagogical Institute named after I. Altynsaryn, Kazakhstan

To cite this article:

Rakhmetova, B., Kaliyev, A., Duisebekova, A., Koldasbaeva, Z., & Galymzhanova, Z. (2023). Effects of folklore teaching with constructivist and computer-assisted teaching method. International Journal of Education in Mathematics, Science, and Technology (IJEMST), 11(4), 1039-1054. https://doi.org/10.46328/ijemst.3523

The International Journal of Education in Mathematics, Science, and Technology (IJEMST) is a peerreviewed scholarly online journal. This article may be used for research, teaching, and private study purposes. Authors alone are responsible for the contents of their articles. The journal owns the copyright of the articles. The publisher shall not be liable for any loss, actions, claims, proceedings, demand, or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of the research material. All authors are requested to disclose any actual or potential conflict of interest including any financial, personal or other relationships with other people or organizations regarding the submitted work.



This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License.



2023, Vol. 11, No. 4, 1039-1054

https://doi.org/10.46328/ijemst.3523

Effects of Folklore Teaching with Constructivist and Computer-Assisted Teaching Method

Bazar Rakhmetova, Aibek Kaliyev, Aisaule Duisebekova, Zina Koldasbaeva, Zaure Galymzhanova

Article Info

Article History

Received:

11 October 2022

Accepted:

01 June 2023

Keywords

Folklore teaching Constructivist learning Computer-assisted instruction Kazakhstan

Abstract

In this study, the effects of constructivist learning and computer-assisted instruction on the achievement and attitudes of high school 2nd grade students in learning folk literature unit were examined by comparing with traditional teaching methods. The sample of the study consisted of 60 high school 2nd grade students studying in a high school in Arkalyk, Kazakhstan. The folk literature unit was taught by using constructivist learning and computer assisted instruction method in the experimental group, while traditional teaching methods were used in the control group. Constructivist teaching was organized according to the 5E model and associated with computer assisted instruction. The experimental applications of the research lasted 7 weeks. Folk literature achievement test and attitude scale towards folk literature were used to collect the data. As a result of the study, it was found that the students who studied with constructivist learning and computerassisted instruction method achieved higher achievement levels in learning the folk literature unit compared to the students who studied with traditional teaching methods. The study also found out that constructivist learning and computerassisted instruction practices significantly increased students' attitudes towards folk literature subjects.

Introduction

When we talk about folk literature, what comes to mind first are legendary old epics, proverbs, stories, tales, riddles, rhymes, nursery rhymes, folk songs, laments and hymns, and folk performances such as Karagöz and middle plays. These are folklore products. The word "folklore" was first used to mean "folklore", and has recently been established as a term indicating this concept. Apart from these folklore products that emerged in the early ages, there are also products that were fed and evaluated by public circles later on, and these are folk literature. It is not easy to draw the boundaries between folklore, which we call oral folk literature, and this folk literature, and to determine exactly where one ends and the other begins (Abrahams, 1972; Egonu, 1987; Levend, 2015; Utley, 1961). In Kazakhstan, more or less personal products such as instrumental and tekke poetry and works whose first singers we generally cannot identify, such as ancestral sayings, epics, tales, stories, anecdotes, riddles, myths, folk songs, laments, lullabies, etc., whose material is based on language, have become widespread with the term folk

literature (Kendirbaeva, 1994; Tuyakbayev, 2018).

Folk literature products, which continue to exist in all areas of life with products such as lullabies sung to babies from birth, laments burned after a deceased person, folk songs that express all kinds of emotions, fairy tales that support moral development and imagination, proverbs that convey experience and lessons by telling a lot with few words, jokes that make you think while laughing, are undoubtedly important in the transfer and protection of national culture to generations and thus in achieving the general objectives of national education (Bacchilega, 2012; Egonu, 1987; Huang & Huang, 2018; Lewis, 1977). Kazakh folk literature is mainly created and transmitted in an oral culture environment, but with the emergence of written and electronic culture, it continues to be recorded and transferred to new generations in these cultural environments. The secondary Kazakh language and literature lesson, and the books of this field, as a product of the written cultural environment, are an important tool in the transfer of Kazakh folk literature texts to new generations. In recent years, the teaching of language and literature lessons has shifted from being centered on the history of literature to a thematic approach that focuses on students' interests, expectations and cultural environment (Albekov, Alpysbayeva & Auyesbayeva, 2017; Lazzat, Ayzhan & Aliya, 2019). This condition has brought the constructivist approach to the forefront in teaching literature in general and folk literature in particular (Daniels & Shumow, 2003; Shang, 2016; Taufik, Yusuf & Rijal, 2020).

According to the constructivist approach, education is an experience. Learning is the construction of meaning from experience and builds on learners' prior knowledge. In fact, the crucial issue here is the nature of knowledge and how learners construct meaningful knowledge (Bada& Olusegun, 2015; Von Glasersfeld, 2001). The issue historically stems from the distinction between Piaget's cognitive constructivism and Vygotsy's social constructivism. Cognitive constructivism is based on the idea that knowledge is constructed and made meaningful through individual interaction and analysis of the environment. According to Vygotsky's approach, knowledge is not only individually constructed in the mind, but rather is associated with interactions in the social context in which learners construct, reconstruct and share their ideas and beliefs. Here learner-centeredness and experience come to the fore (Jadallah, 2000, p. 221). The deeper meaning of knowledge is achieved not only through acquisition and accumulation, but as a result of the transfer and construction of knowledge (Blumenfeld, 1992). The basic idea behind knowledge construction is that learners interpret new knowledge using prior knowledge (Loyens, Rikers, & Schmidt, 2007).

In the constructivist approach, it is emphasized that learning is built on prior learning and in order to achieve this, appropriate learning environment and processes should be prepared. The preparer of this is the teacher. At this point, the teacher's knowledge, skills and attitudes towards the constructivist approach gain importance. Cognitive constructivism is interpreted as the teacher creating a learning environment based on research and discovery that enables students to establish a relationship between their prior knowledge and any new subject. According to Vygotsky's approach, interaction with the teacher and other students is vital in the learning process. The teacher is more of a planner and guide based on social interaction where students can test and build their knowledge (Jadallah, 2000; O'Connor, 2022). The classroom is an environment where students ask questions, think freely and interact with each other and the teacher. In this approach, the role of the teacher is to counsel and guide students in acquiring permanent learning (Kumar & Teotia, 2017; Neutzling, Pratt & Parker, 2019).

The Council of Europe speaks of two main dimensions of literature and language teaching: The informational function and the educational function. The informational function is the inclusion of all information about a person's language background (from the time spent learning a foreign language, to the institution where he or she has studied, to the certificates and diplomas he or she has received in the language he or she has learned). Its educational function is to help individuals to make their own decisions about language learning and to be autonomous in learning a language, i.e. to have learning autonomy (Council of Europe, 2002). In this process, the individual will feel independent in the learning process and will be able to make self-evaluation. In addition, the transparency of language learning brings important contributions to the individual in terms of determining language levels and transferring this knowledge. In this sense, learner autonomy and constructivism theory come into play in language learning (Council of Europe, 2002). Students' active participation in the decision-making process in literature and language education will contribute to the development of learner autonomy and enable them to learn the language more effectively (Block, 1993; Eberly, Newton & Wiggins, 2001). At this point, language teachers have important duties and responsibilities. Language and literature teachers can only achieve this by creating constructivist learning environments in classrooms. Constructivist teachers can enable their students to learn a foreign language more effectively by providing them with the opportunity to actively participate in the decision-making process in their learning. This can only be realized in constructivist classrooms. In this framework, the extent to which students can acquire skills such as being aware of their own learning processes and self-direction in language education is important (Balcı & Sünbül, 2015; Karantalis & Koukopoulos, 2022; Reyes & Vallone, 2007).

Although how computers will enter the educational environment in Kazakh Literature lessons is a debated issue, there is no system developed for Kazakh Folk Literature lessons and there is no platform for computer-aided teaching applications in these lessons (Sarekenova et al., 2023; Nurmukhametov, Temirova & Bekzhanova, 2015; Toybazarova & Nazarova, 2018). With a structuring supported by different elements, the first steps of the transition to computer-aided teaching in Kazakh Literature lessons can be created. It is thought that computer-aided teaching applications to be developed with a student-centered approach and on the basis of constructivist learning will bring significant contributions to the field of literature and folk literature (Seitenova et al., 2023).

Wolff (2001) recommends the application of the constructivist approach in literature and language teaching. According to this approach, learning a language means using that language orally and in writing in various communication environments. In this approach, which is based on the use of language, the learning of language elements takes place in the brain through a number of cognitive and critical processes; in other words, the raw information we perceive from the outside world through our sensory organs is processed, interpreted and structured in our brain in the light of the knowledge we have previously acquired and thus becomes ready for use. This approach does not consider it sufficient to teach a foreign language through activities such as listening, imitating, repeating what is spoken, reading dialogues, dramatizing, etc. in artificial classroom environments. Bimmel and Rampillon (2000), on the basis of this perspective, emphasize that in order to achieve the objectives of language and literature lessons, it is not enough for the teacher to determine the activities and activities in question, they must be accepted, adopted and implemented by the students in the first place.

In a lesson according to the constructivist approach model, the teacher and students determine together what kind of lesson materials and equipment should be used in that lesson. This approach envisages the use of modern teaching tools and materials of modern media, which we call "neue Medien". By modern media, we understand audiovisual media, including mass media, visual and print media, i.e. radio, television, computer, cinema, film, cartoons, cassettes, CDs, books, slides, computerized classroom equipment (smart classroom), in short, audiovisual media, in other words, media that appeal to both the eye and the ear (Jia, 2019; Maier, 2004; Nicaise& Barnes, 1996; Seitenova, 2013). As Koch and Neckel (2001) state, the use of such media in the classroom will help students to easily perceive, understand, structure and retain the new information they learn as it will appeal to both the eyes, ears and other sensory organs.

The most important ways of using the computer in education are as a presentation tool, as a practice and review tool, as a tutor, and as a presentation tool for simulation activities. When lessons are given in a practical or animated way with the help of a computer, the lesson will be more attractive and enjoyable for the student, which will increase the student's attitude and motivation towards the lesson. This motivation and interest will enable the student to learn more about the lesson and increase his/her success in the lesson (Blok et al., 2002; Fletcher-Flinn & Gravatt, 1995; Ok, Bryant & Bryant, 2020). In addition to increasing success, it has been observed that computer-assisted education provides the development of high-level thinking skills in students, so students learn by comprehension rather than memorization (Aslan, 2011; Coymak, 2019; Gocić, 2020). This ensures that the information learned by the student is permanent and that his/her interest in the lesson is higher. Computer-assisted instruction helps teachers in training students, introduces new materials, subjects, teaches lessons, allows them to acquire new skills, tests the acquired skills, provides repetition and provides reminders when necessary. The computer can teach any subject according to its degree of difficulty, from the simplest to the most difficult. The amount, complexity and degree of detail of the topic can be determined individually according to the level of the students (Sünbül, Gündüz & Yılmaz, 2002; Larkin & Chabay, 2021; Tejedor-García et al., 2020; Tsai, 2019).

There are many studies on constructivist approach and computer assisted instruction both in Turkey and abroad (Chang, 2000; Grizioti & Kynigos, 2020; Gu, Zhang & Gu, 2020; Hill & Solent, 1999; Huang & Teo, 2021; Ray, Sormunen & Haris, 1999; Vogel et al., 2006). However, when the aforementioned studies are examined, it is seen that these are mostly not studies that deal with constructivist approach and computer-assisted instruction together, the effects of the applied method on achievement and attitudes are not examined together, they are mostly conducted at the secondary and higher education level and on teacher/pre-service teachers, and fewer studies have been conducted on this subject at the high school level.

Laney (1990) states that the use of technology in the constructivist approach is effective in developing higherorder thinking skills that include defining problems, solving problems and producing appropriate solutions. According to Jonassen (1994), technology in constructivist instructional design consists of replicable and applicable techniques that direct learners towards cognitive learning strategies and critical thinking skills. Based on these ideas, the researcher developed a "computer assisted learning method based on constructivist approach" application and applied it experimentally within the scope of the research. The computer assisted learning method based on the constructivist approach; By using the "constructivist approach principles", which stipulate that the individual actively constructs the information in his/her mind, and the computer technology that increases the motivation of the students and keeps their interest in the lesson alive for a long time and provides personal work, the preparation of the lesson activities and the realization of the teaching activities were provided by combining the prepared folk literature lesson programs with the "computer assisted teaching" that realizes the teaching process. In this context, in this study, the effects of constructivist learning and computer assisted instruction on student achievement attitudes in folk literature content were examined. Answers to the following questions were sought in relation to this purpose.

- To what extent does the combination of constructivism and computer-assisted instruction in folk literature lessons affect students' achievement compared to traditional instruction?
- To what extent does the combination of constructivism and computer-assisted instruction affect students' attitudes towards folk literature compared to traditional instruction?

Method

The research was conducted as a quasi-experimental study in accordance with the control group pretest-posttest model in order to investigate the effect of constructivist learning and computer-assisted teaching of the folk literature subject of the 2nd grade Kazakh Language and Literature lesson on students' attitudes and academic achievement. Constructivist learning-computer assisted instruction method and traditional teaching methods used in the research design are included as independent variables. Our dependent variables are students' academic achievement level in folk literature and attitudes towards folk literature. The research design is given in Table 1.

 Groups
 Pre-test
 Experimental Variable
 Post-Test

 GE
 TE. S1
 X
 TE. S2

 TE. T1
 TE. T2
 TC. T2

 GC
 TC. S1
 TC. S2

 TC. T1
 TC. T2

Table 1. Research Design

In Table 1, GE indicates the experimental group; GC indicates the control group; TE. S1 and TE. S2 indicate pretest and posttest achievement test measurements of the experimental group; TE. T1 and TE. T2 indicate pretest and posttest attitude test measurements of the experimental group; TC. S1 and TC. S2 indicate pretest and posttest achievement test measurements of the control group; TC. T1 and TC. T2, pretest and posttest attitude test measurements of the control group; X indicates constructivist learning and computer assisted instruction applied to the experimental group, and "-" indicates the traditional instruction variable applied to the control group.

In the experimental group where constructivist learning and computer assisted instruction method was applied, computer assisted lesson software was used for the "Folk Literature" unit. In addition, slides covering the unit topics were prepared and the lesson content was enriched with animations, subject tests, puzzles and short experiment videos. Permission was obtained from the necessary places for the use of the computer-aided lesson software, user name and password were provided and the software was made ready for use. In the software, there

are topics related to the folk literature high school 2nd grade unit. These topics include interactive activities, animations and animations, examples of folk literature works in daily life, classroom activities and examples with solutions. In addition, there are audio lectures on folk literature, videos on past works of folk literature, digital texts and exercises. The applications in the experimental group, where constructivist learning and computer-assisted instruction were used together, were carried out in five stages. These are: Engage, explore, explain, elaborative and evaluation. The following activities were carried out within the framework of these stages:

- a) Engage Phase: The teacher has attracted students' interest and attention on folk literature. At this stage, prior knowledge is mobilized through short activities to arouse curiosity. In the activities, connections were made between past and current learning experiences, previous concepts were introduced and students' thoughts about the learning outcomes of the current activities were taken. In this context, students were shown online videos about folk literature works in computer environment. Students were asked questions about the stories and events in the videos.
- b) Explore Phase: In this stage, students were made active in the lesson. In groups, students searched the works of folk literature writers and poets in online libraries and browsers.
- c) Explain Phase: In this stage, the students first discussed the results they obtained in the discovery phase under the supervision of the teacher. The teacher emphasized the main points about the folk literature products with his/her explanations.
- d) Elaborative: At this stage, the information obtained in the previous three steps was expanded and elaborated. At this stage, puzzles, exercises and game activities were carried out on the basis of works and topics related to folk literature on online materials in the computer environment.
- e) Evaluate Phase: The students' competence in new concepts and skills that they had discovered, reached and deepened in the previous phases was evaluated. In this phase, students were asked online tests and open-ended questions in the computer environment. In addition, at the end of the unit, students were given a project assignment that required them to work from online resources to present a topic in folk literature in class.

In the experimental group, computer assisted instruction on the basis of constructivist learning lasted 7 weeks. In the control groups, lessons were carried out with traditional teaching methods of lecture, question-answer, discussion. The traditional teaching method of folk literature subjects took 6 weeks. In both groups, the same subjects and achievements of the lesson were carried out simultaneously with two different teaching approaches. After the end of the experimental applications, the measurement tools of the researches were applied to both groups as a post-test.

In the study, the "Folk Literature Achievement Test" was applied to the students at the beginning of the study as a pre-test study in order to measure the academic achievement levels of the students on folk literature and the "Attitude Scale Towards Folk Literature" was applied to the students at the beginning of the study in order to measure their attitude levels. When the research was completed, the same tests were applied as post-tests. The research was conducted based on this collected data.

The population of the research consists of high school 2nd grade students in Arkalyk in the 2023 academic year. The sample of the research consists of 60 high school 2nd grade students of a high school located in the city center

of Arkalyk city. There are two groups in the sample, "Control Group" and "Experimental Group". The total number of students participating in the pre-test-post-test application was 60 (Girl=30, Boy=30), 30 in the control group (Girl=15, Boy=15) and 30 in the experimental group (Girl=16, Boy=14).

Folk Literature Achievement Test

Within the scope of Kazakh Language Literature lesson, it is a scale prepared to learn the students' prior knowledge levels about the "Folk Literature" unit in the 2nd grade of High School and to measure their success levels at the end of the application. In the research, a question bank consisting of multiple-choice questions including the subjects in the "Folk Literature" unit was created in order to measure the subject knowledge of high school 2nd grade students. In the process of creating this question bank, various sources such as high school 2nd grade Kazakh Language and Literature textbook, question banks related to this lesson, test sheets were utilized. While selecting the questions, multiple-choice questions suitable for the curriculum objectives and characteristics, covering the subjects of "Folk Literature" were taken and presented to the opinions of experienced and expert measurement and evaluation experts and subject area experts. In line with the opinions of experts and teachers, a 40-question multiple-choice test was developed in accordance with the level of answerability of high school 2nd grade students. The test was checked by subject area teachers and subject area experts whose opinions were taken at the stage of selecting these questions and after the necessary corrections were made, it was made applicable for the reliability study.

The reliability study of the test was applied as a pilot study to a group of 58 high school 3rd grade students studying in different high schools in the 2022-2023 academic year. The reason why the pilot application was applied to high school 3rd grade students was that these students had learned the "Folk Literature" unit in the previous year. Item difficulty indices and item discrimination power indices were calculated and questions with item difficulty around 0.40-0.60 were preferred. Questions with low measurement power were either reorganized or removed from the test as a result of the opinions of subject area teachers. As a result of the index studies, 5 items that needed to be rearranged were rearranged as deemed necessary and 10 items that needed to be removed were removed. As a result of the index studies, the number of questions in the test was reduced to 30 questions. The item discrimination power of the 30-question "Folk Literature Achievement Test" varies between 0.36 and 0.79. As a result of KR-20 reliability analysis, the reliability coefficient of the "Folk Literature Achievement Test" was calculated as .88. The developed achievement test was applied to the students as a pre-test and post-test. Scoring was done by giving "1" point for each correct answer and "0" point for wrong and blank answers. As a result of this scoring, the highest score that could be obtained in the test was calculated as "30" points if all questions were correct and the lowest score was calculated as "0" points if all questions were answered incorrectly.

Attitude Scale towards Folk Literature

This scale was developed by the researchers in order to determine the attitudes of high school students towards folk literature subjects. In the attitude scale development study, attitude statements were determined first. While determining these statements, attitude scales previously developed to measure attitudes towards various lessons,

the statements of a small group of students in their composition studies in which they expressed their feelings about folk literature, and the opinions of three university lecturers teaching Kazakh Language and Literature were utilized. After the statements were written, they were structured in the scale format and as a result, a 20-item attitude scale was made ready for application. The scale used is a 5-point Likert type and contains a total of 20 items with 12 positive and 8 negative statements. These items were scaled in five categories as "Strongly Agree, Partially Agree, Undecided, Disagree and Strongly Disagree". Positive and negative statements were distributed equally to odd and even numbers. After the scale was applied, positive statements were scored as 5, 4, 3, 2, 1, and negative statements were scored as 1, 2, 3, 4, 5, respectively, starting from the category of "Strongly Agree". As a result of the exploratory factor analysis conducted by the researcher in the pilot application, it was seen that the measurement tool had a unidimensional structure. This unidimensional structure explains approximately 51.8% of the variance in Attitudes Toward Folk Literature. As a result of the Cronbach Alpha reliability study, the calculated Spearman Brown reliability coefficient of the scale was found to be 0.93.

Data Analysis

Mean, standard deviation and t-test were used in the statistical analysis of the data. Independent samples t-test was used to test the difference between the pre-test and post-test achievement and attitude averages of the experimental and control groups. Statistical analyses were performed using SPSS program in computer environment. The significance level was taken as 0.05.

Findings

In the study, a pre-test was administered before starting the teaching of the folk literature unit in both groups. The results of the independent groups t-test analysis conducted to determine whether there was a significant difference between the pre-test mean scores of the groups are given in Table 2. As seen in Table 2, there was no statistically significant difference between the arithmetic averages of the pre-test folk literature achievement scores of the experimental and control groups (p>0.05).

Table 2. Comparison of Folk Literature Pre-test Achievement Levels of Students in Experimental and Control Groups

	Group	N	Mean	Std. Deviation	t	p
Pre-test Achievement	Experimental	30	7.93	2.96	-0.06	0.96
	Control	30	7.97	2.66		

In the study, a pre-test attitude scale was applied before the teaching of the folk literature unit in both groups. The results of the independent samples t-test analysis conducted to determine whether there was a significant difference between the mean pre-test attitude scores of the groups are given in Table 3. As seen in Table 3, there was no statistically significant difference between the arithmetic averages of the pre-test attitude scores of the experimental and control groups towards folk literature (p>0.05).

Table 3. Comparison of Experimental and Control Group Students' Pre-test Attitudes towards Folk Literature

	Group	N	Mean	Std. Deviation	t	p
Pre-test Attitude	Experimental	30	3.70	0.43	-1.08	0.15
	Control	30	3.88	0.64		

After the folk literature unit was taught with constructivist learning-information-supported instruction and traditional teaching methods, a post-test was applied to both groups. In order to determine whether there was a significant difference between the mean achievement scores of the groups in the post-test, independent samples t-test analysis was performed and the results are shown in Table 4. When the data in Table 4 are examined, the difference between the mean post-test achievement scores of the experimental and control groups (\bar{X} =17.03, \bar{X} =13.23) in favor of the experimental group (t=3.31; p<0.05) was found statistically significant. This shows that there are significant differences between the output achievements of the groups in the folk literature unit in favor of the experimental group. Constructivist learning and computer assisted instruction significantly increased students' achievement in the folk literature unit compared to traditional instruction.

Table 4. Comparison of Folk Literature Post-test Achievement Levels of Students in Experimental and Control Groups

	Group	N	Mean	Std. Deviation	t	p
Post-test Achievement	Experimental	30	17.03	5.29	3.31	0.00
	Control	30	13.23	3.39		

After the experimental procedures of the research, the post-test attitude scale was applied to both groups. Independent groups t-test analysis was performed to determine whether there was a significant difference between the mean achievement scores of the groups on the post-test attitude scale and the results are shown in Table 5. When the data in Table 5 are examined, the difference between the mean post-test attitude scores of the experimental and control groups (\bar{X} =4.60, \bar{X} =4.13) in favor of the experimental group (t=3.09; p<0.05) was found statistically significant. This shows that there are significant differences between the groups' attitudes towards the lesson in the folk literature unit in favor of the experimental group. Constructivist learning and computer assisted instruction significantly increased students' attitudes towards folk literature compared to traditional instruction.

Table 5. Comparison of Post-test Attitudes towards Folk Literature of Students in Experimental and Control Groups

	Group	N	Mean	Std. Deviation	t	p
Post-test Attitude	Experimental	30	4.60	0.41	3.09	0.00
	Control	30	4.13	0.71		

Discussion and Conclusion

In this experimental study in which the effects of constructivist learning and computer assisted instruction on student achievement and attitudes compared to traditional instruction were examined, significant results were obtained in favor of the experimental group. According to the findings of the study, the experimental group students who received constructivist learning and computer-assisted instruction achieved significantly higher folk literature achievement than the control group students who received traditional instruction. These findings are similar to the results of the studies conducted by Anderson & Kanuka (1999), Felix (2002), Gu, Zhang & Gu, (2020), Harwood & McMahon (1997), Liu et al. (2020), Nanjappa & Grant (2003), Palmer, Harshbarger & Koch (2001), Woodard (2003), Wulf (2005).

With the application of the constructivist learning approach in the content of folk literature; folk literature products are related to the mentality of the period in which they emerged and to the literary works written or sung before and after them; it is ensured that the literary text is interpreted every time it is read and the students are provided with a structure to be reconstructed and the expression and language features to be reinterpreted. In the experimental group where the constructivist learning approach and computer-assisted instruction were implemented, students followed a systematic process of preparation, examination, comprehension-interpretation and evaluation. In the preparation phase, students performed many activities in order to draw their attention to the activities and mobilize their prior knowledge. For this purpose; with a student-centered approach, they prepared the necessary folk literature material for the lesson, mobilized their prior knowledge, determined the methods and techniques for the examination, and prepared online (video, visual, audio) material according to the folk literature text and subject. At this stage, the teacher posed questions to the students about the topic and text, opened a class discussion and had them make self-evaluations. In the analysis stage, students analyzed the work of folk literature in terms of theme, language and expression. At this stage, students performed critical thinking, creative thinking, communication, research-inquiry, problem solving, decision-making, ability to use information technologies, using Kazakh correctly, effectively and beautifully. Within the scope of constructivist learning and computerassisted instruction, students established relationships between the structure, theme, language and expression elements of folk literature works in the third stage and tried to update the online content they examined. In the last stage of the activities, students filled out short online assessment and evaluation forms on folk literature and made self-evaluations. In this respect, all these constructivist and computer-assisted applications enabled students to achieve high levels of success in folk literature content. As a matter of fact, Colleen's (2001) study supports the results of this study by revealing that the use of computer support in a constructivist learning environment is effective in achieving success in the learning process. Since the constructivist learning approach aims to avoid rote learning, to combine the information given to students with the information they already have and to ensure students' active participation in learning, technology supported education is a useful method especially in concretizing abstract folk literature concepts and providing students with rich learning activities that they can do themselves. Laney (1990) states that the use of technology in the constructivist approach is effective in developing higher-order thinking skills that include defining content, solving problems and producing appropriate solutions.

According to Jonassen (1994), technology in constructivist instructional design consists of replicable and applicable techniques that direct learners towards cognitive learning strategies and critical thinking skills. There are findings in the literature that the development and use of multimedia-supported teaching activities that can stimulate students' visual and intellectual structures in the creation of meaningful learning and in teaching behaviors that they have difficulty in understanding positively affect students' achievement (Harwood &

McMahon, 1997). These findings that the use of computers in educational environments helps to create effective learning have led to more effective use of computers in the creation of constructivist teaching environments in which students can actively participate in folk literature subjects, different learning activities can be applied and students can easily associate their different knowledge with each other. Collins (1991) referred to the application of computers and constructivist learning in lessons in a complex way, stating that using computers requires active learning and that this allows students and society to change towards a constructivist view.

Another variable addressed in the study is the effect of constructivist learning and computer-assisted instruction on students' attitudes towards folk literature. According to the findings of the study, the students in the experimental group, in which constructivist learning and computer-assisted instruction were applied together, had significantly higher attitudes towards folk literature compared to the students in the control group, in which traditional instruction was applied. This increase can be interpreted as that the teaching was successful in terms of attitude and academic motivation. Students' motivation and attitudes towards the lesson have an important place in language and literature teaching. In the experimental group, the students realized the constructivist and computer-assisted applications themselves. The motivation and positive attitudes of the students can be considered as a result of the observations they made as a result of the applications, the results they obtained and the feelings of concrete achievement and application. This result is also important in terms of showing that teaching with the right combination of computer and constructivist approach will increase student attitudes positively. As a matter of fact, some studies on the reasons for positive attitudes towards computers support this situation (Almekhlafi, 2006; Elkad-Lehman & Gilat, 2010; Feli, 2002; Grisham, 1993; Gül & Yeşilyurt, 2011; Huang, Rauch & Liaw, 2010; Lin, 2012; Mathew Myers & Halpin, 2002; Rajasekar & Vaiyapuri, 2007; Zimmermann, Peschl, & Römmer-Nossek, 2010). Colleen (2001) aimed to determine the benefits and effects on students when technology is combined with constructivist-based curriculum. According to the findings of the two-year study, the application of technology and constructivist-based applications in a complex way in the lessons positively affects students' affective learning products and attitudes.

The application of constructivist learning approach and computer-assisted instruction together in folk literature lesson had a significant effect on students' achievement and attitudes. Therefore, literature teachers can use computer assisted instruction and constructivist learning approach together to improve students' achievement and positive attitudes. Computer-assisted instruction and constructivist learning approach can be given more space in folk literature curricula due to their positive effects on students' achievement and attitudes. New approaches require the active use of technology and the applicability of the program decreases for literature teachers who determine only the narrative method with the traditional understanding. Therefore, it was evaluated that it would be useful to take educational measures that would enable literature teachers to use technology more effectively. In order to be able to teach the Literature lesson with a computer supported constructivist approach, it is necessary to make arrangements in the lesson hours and it is considered that it would be appropriate to increase the number of lesson hours. According to the observations of the researcher during the experimental procedures, it was concluded that the time for the program was insufficient. For this reason, it is recommended to revise the scope of literature lessons according to the scope of computer supported constructivist learning approach. In future research, qualitative studies can be conducted to examine the views of teachers and subject area experts on the

application of methods based on constructivist learning approach and computer-assisted teaching methods in literature lessons. Finally, it is recommended to develop constructivist computer assisted instructional software and materials for literature in general and folk literature in particular. As a final word, it should be noted that the organization of literature curricula according to the requirements of new approaches is an approach required by the age.

References

- Abrahams, R. D. (1972). Folklore and literature as performance. Journal of the Folklore Institute, 9(2/3), 75-94.
- Albekov, T. K., Alpysbayeva, K. B., & Auyesbayeva, P. T. (2017). Distinctive and educational features of Kazakh folklore by the example of «Words of Ancestors». *Espacios*, *38*(45), 33-33.
- Almekhlafi, A. G. (2006). The effect of computer assisted language learning (CALL) on United Arab Emirates English as a foreign language (EFL) school students' achievement and attitude. *Journal of Interactive learning research*, 17(2), 121-142.
- Anderson, T., & Kanuka, H. (1999). Using constructivism in technology-mediated learning: Constructing order out of the chaos in the literature. New York: ICAAP Publications, https://auspace.athabascau.ca/bitstream/handle/2149/728/Using%20Constructivism%20in%20Technology-Mediated%20Learning %20 br Constructing%20Order.pdf?sequence=1&isAllowed=y
- Aslan, Y. (2011). YDYO Öğrencilerinin Bilgisayar Destekli Dil Öğrenimine Yönelik Tutumları. *Ahi Evran Üniversitesi Kırşehir Eğitim Fakültesi Dergisi*, 12 (2), 255-269. Retrieved from https://dergipark.org.tr/en/pub/kefad/issue/59495/855177
- Bacchilega, C. (2012). Folklore and literature. A companion to folklore, 447-463.
- Bada, S. O., & Olusegun, S. (2015). Constructivism learning theory: A paradigm for teaching and learning. *Journal of Research & Method in Education*, 5(6), 66-70.
- Bimmel, P., & Rampillon, U. (2000). Lernerautonomie und Lernstrategien. München, Goethe-Institut.
- Block, C. C. (1993). Teaching the Language Arts: Expanding Thinking through Student-Centered Instruction. Allyn and Bacon, Order Processing, PO Box 11071, Des Moines, IA 50336-1071.
- Blok, H., Oostdam, R., Otter, M. E., & Overmaat, M. (2002). Computer-assisted instruction in support of beginning reading instruction: A review. *Review of educational research*, 72(1), 101-130.
- Blumenfeld, P. C. (1992). Classroom learning and motivation: Clarifying and expanding goal theory. *Journal of Educational psychology*, 84(3), 272.
- Chang, C.Y. (2000). Enhancing tenth graders' earth-science learning through computer assisted instruction. Journal of Geoscience Education, 48, 636.
- Colleen, N. C. (2001). An Exploration of the Effectiveness Of Integrating Technology Within A Constructivist Philosophy On Student Work. Pacific Lutheran University (Master of Arts in Education).
- Collins, A. (1991). The role of computer technology in restructuring schools. Phi Deta Kappan, 73(1), 28-36.
- Council of Europe. (2002). Common European Framework of Reference for Languages: Learning, Teaching, Assessment. Case studies. Strasbourg: Council of Europe Publishing.
- Coymak, A. (2019). An experimental study of the effect of computer assisted learning on metacognitive performance development in psychology teaching. *Contemporary Educational Technology*, 10(1), 94-

105.

- Daniels, D. H., & Shumow, L. (2003). Child development and classroom teaching: A review of the literature and implications for educating teachers. *Journal of applied developmental psychology*, 23(5), 495-526.
- Eberly, M. B., Newton, S. E., & Wiggins, R. A. (2001). The syllabus as a tool for student-centered learning. *The Journal of General Education*, 56-74.
- Egonu, I. (1987). The Nature and Scope of Traditional Folk Literature. Presence Africana, 4, 109-117.
- Elkad-Lehman, I., & Gilat, I. (2010). Coming closer to literature: Learning and instruction in a constructivist spirit. *L1-Educational Studies in Language and Literature*, 1-25.
- Felix, U. (2002). The web as a vehicle for constructivist approaches in language teaching. ReCALL, 14(1), 2-15.
- Fletcher-Flinn, C. M.,& Gravatt, B. (1995). The efficacy of computer assisted instruction (CAI): A metaanalysis. *Journal of educational computing research*, 12(3), 219-241.
- Gocić, M. S. (2020). Engaging Students for Online Instruction through Metacognitive Strategies. *KNOWLEDGE-International Journal*, 43(2), 335-338.
- Grisham, D. L. (1993). The Integrated Language Arts: Curriculum Enactments in Whole Language and Traditional Fourth Grade Classrooms. ERIC: ED359495
- Grizioti, M., & Kynigos, C. (2020). Computer-based learning, computational thinking, and constructionist approaches. In *Encyclopedia of education and information technologies* (pp. 355-371). Cham: Springer International Publishing.
- Gu, P., Zhang, Y., & Gu, H. (2020). Creating a technology-enhanced constructivist learning environment for research ability development in a BA Thesis Writing lesson. Computer Assisted Language Learning, 33(5-6), 538-566.
- Gül, Ş. & Yeşilyurt, S. (2011). The Effect of Computer Assisted Instruction Based Constructivist Learning Approach on Students' Attitudes and Achievements. *Necatibey Faculty of Education Electronic Journal of Science and Mathematics Education*, 5 (1), 94-115.
- Harwood, W. S. & McMahon, M. M. (1997). Effects of integrated video media on student achievement and attitudes in high school chemistry. *Journal of Research in Science Teaching*, 34(6), 617-631.
- Hill, A.D., & Solent, M.N. (1999). Geography on the Web: Changing the Learning Paradigm? *Journal of Geography*, 98(3), 100
- Huang, F., & Teo, T. (2021). Examining the role of technology-related policy and constructivist teaching belief on English teachers' technology acceptance: A study in Chinese universities. *British Journal of Educational Technology*, 52(1), 441-460.
- Huang, H. M., Rauch, U., & Liaw, S. S. (2010). Investigating learners' attitudes toward virtual reality learning environments: Based on a constructivist approach. *Computers & Education*, 55(3), 1171-1182.
- Huang, Y., & Huang, Y. (2018). Popular literature, elite literature and Folk literature. *Narrative of Chinese and Western Popular Fiction: Comparison and Interpretation*, 23-44.
- Jadallah, E. (2000). Constructivist learning experience for social studies education. *The Social Studies*, 91(5), 221-225.
- Jia, J. (2019). Theories and Literatures for Technology-Enhanced Language Instruction. In *Computer-Assisted Language Learning: Concepts, Methodologies, Tools, and Applications* (pp. 50-82). IGI Global.
- Jonassen, D. H. (1994). Towards A Constructivist Design Model. Educational Technology, 34(4), 34–37.

- Karantalis, N., & Koukopoulos, D. (2022). Utilizing digital storytelling as a tool for teaching literature through constructivist learning theory. *SN Social Sciences*, *2*(7), 109.
- Kendirbaeva, G. (1994). Folklore and folklorism in Kazakhstan. Asian Folklore Studies, 97-123.
- Koch, H & Neckel, H (2001). *Unterrichten mit Internet und Co-Methodenhandbuch für die Sekundarstufe I un II*. Berlin: Cornelsen Verlag.
- Kumar, A. ve Teotia, A. (2017). Constructivism: A dynamic approach of teachinglearning social science at upper primary level. *International Journal of Management and Applied Science*, *3*(5), 2394-7936.
- Laney, D. (1990). Micro computers and social studies. OCSS Review, 26, 30-37.
- Larkin, J. H., & Chabay, R. W. (2021). Computer assisted instruction and intelligent tutoring systems: Shared goals and complementary approaches. Routledge.
- Lazzat, A., Ayzhan, B., & Aliya, M. (2019). Ways of studying Kazakh literature in the period of independence. *Вестник науки и образования*, 23(77), 52-55.
- Levend, A. S. (2015). Turkish Literature History. İstanbul: Dergâh Publications
- Lewis, M. E. B. (1976). Beyond Content in the Analysis of Folklore in Literature: Chinua Achebe's" Arrow of God". *Research in African Literatures*, 44-52.
- Lin, C. H. (2012). Language learning through social networks: Perceptions and reality. University of California, Irvine.
- Liu, Y., Liu, H., Xu, Y., & Lu, H. (2020). Online English reading instruction in the ESL classroom based on constructivism. *Journal of Educational Technology Systems*, 48(4), 539-552.
- Loyens, S. M. M., Rikers, R. M. J. P., & Schmidt, H. G. (2007). The impact of students' conceptions of constructivist assumptions on academic achievement and drop-out. *Studies in Higher Education*, 32(5), 581-602. doi: 10.1080/03075070701573765
- Maier, W. (2004). Grundkurs Medienpädagogik Mediendidaktik. Ein Studien- und Arbeitsbuch. Weinheim/Basel, Beltz Verlag
- Mathew Myers, J., & Halpin, R. (2002). Teachers' attitudes and use of multimedia technology in the classroom: Constructivist-based professional development training for school districts. *Journal of Computing in Teacher Education*, 18(4), 133-140.
- Nanjappa, A., & Grant, M. M. (2003). Constructing on constructivism: The role of technology. *Electronic Journal* for the integration of Technology in Education, 2(1), 38-56.
- Neutzling, M., Pratt, E., & Parker, M. (2019). Perceptions of learning to teach in a constructivist environment. *Physical Educator*, 76(3), 756-776.
- Nicaise, M., & Barnes, D. (1996). The union of technology, constructivism, and teacher education. *Journal of Teacher Education*, 47(3), 205-212.
- Nurmukhametov, N., Temirova, A., & Bekzhanova, T. (2015). The problems of development of distance education in Kazakhstan. *Procedia-Social and Behavioral Sciences*, 182, 15-19.
- O'Connor, K. (2022). Constructivism, curriculum and the knowledge question: tensions and challenges for higher education. *Studies in Higher Education*, 47(2), 412-422.
- Ok, M. W., Bryant, D. P., & Bryant, B. R. (2020). Effects of computer-assisted instruction on the mathematics performance of students with learning disabilities: A synthesis of the research. *Exceptionality*, 28(1), 30-44.

- Palmer, B. C., Harshbarger, S. J., & Koch, C. A. (2001). Storytelling as a constructivist model for developing language and literacy. *Journal of poetry therapy*, *14*, 199-212.
- Rajasekar, S. & Vaiyapuri, R.P. (2007). Higher secondary school teachers' computer knowledge and their attitude towards computer. *E-Journal of All India Association for Educational Research*, 19(1&2).
- Ray, C.M., Sormunen, C. & Haris, T.M. (1999). Men's and women's attitudes toward computer technology: A comparison. *Office Systems Research Journal*, 17(1), 1-8.
- Reyes, S. A., & Vallone, T. L. (2007). Constructivist strategies for teaching English language learners. Corwin Press.
- Sarekenova, K., Aimukhambet, Z., Malikov, K., Salikzhanova, S., Zhylkybay, G., & Assanbayeva, Y. (2023). Effects of Online Learning and Digital Conversation-Based Activities on the Transfer of Cultural Values in Language and Literature Classes. International Journal of Education in Mathematics, Science, and Technology (IJEMST), 11(2), 471-492.
- Seitenova, S. S. (2013). Language training with professionally-oriented texts. *Middle East Journal of Scientific Research*, 13, 212-217.
- Seitenova, S., Khassanova, I., Khabiyeva, D., Kazetova, A., Madenova, L., & Yerbolat, B. The effect of STEM practices on teaching speaking skills in language lessons. *International Journal of Education in Mathematics, Science, and Technology (IJEMST), 11*(2), 388-406. https://doi.org/10.46328/ijemst.3060 (2023).
- Shang, W. (2016). Construction and Application of WeChat Learning Platform in Folk Literature Teaching. *International Journal of Emerging Technologies in Learning*, 11(5).
- Sünbül, A.M., Gündüz, Ş. & Yılmaz, Y. (2002). Effect of 'Computer Assisted Instruction'Prepared According to 'Gagne's Instruction Theory'on Students' Achievement. *Selçuk University Faculty of Education Journal*, 14, 379-404.
- Taufik, M., Yusuf, M. J., & Rijal, A. S. (2020). Constructivism Learning In Writing of Literary Works. *English and Literature Journal*, 7(1), 102-111.
- Tejedor-García, C., Escudero-Mancebo, D., Cámara-Arenas, E., González-Ferreras, C., & Cardeñoso-Payo, V. (2020). Assessing pronunciation improvement in students of English using a controlled computer-assisted pronunciation tool. *IEEE Transactions on Learning Technologies*, 13(2), 269-282.
- Toybazarova, N. A., & Nazarova, G. (2018). The modernization of education in Kazakhstan: trends, perspective and problems. *Bulletin of National academy of sciences of the Republic of Kazakhstan*, 6(376), 104-114.
- Tsai, P. H. (2019). Beyond self-directed computer-assisted pronunciation learning: a qualitative investigation of a collaborative approach. *Computer Assisted Language Learning*, 32(7), 713-744.
- Tuyakbayev, G. A. (2018). Historical importance of folk literature. News of NAS RK, 1(317), 106-110.
- Utley, F. L. (1961). Folk literature: An operational definition. *The Journal of American Folklore*, 74(293), 193-206.
- Vogel, J., Greenwood, A, Ericksen, J. C, Bowers, & Clint A.B. (2006). Using Technology in Education: When, Why, Not How Using Virtual Reality With And Without Gaming Attributes For Academic Achievement. *Journal of Research on Technology Education*, 39(1), 105-117.
- Von Glasersfeld, E. (2001). Radical constructivism and teaching. *Prospects*, 31(2), 161-173.
- Wolff, D. (2001). Zum Stellenwert von Lehrwerken und Unterrichtsmaterialien in einem konstruktivistisch

orientierten Fremdsprachenunterricht, içinde: Meixner, J. ve Müller, K., Konstruktivistische Schulpraxis. Beispiele für den Unterricht. Neuwied, Kriftel, Hermann Luchterhand Verlag GmbH.

- Woodard, B. S. (2003). Technology and the constructivist learning environment: Implications for teaching information literacy skills. Research Strategies, 19(3-4), 181-192.
- Wulf, T. (2005, October). Constructivist approaches for teaching computer programming. In Proceedings of the 6th conference on Information technology education (pp. 245-248).
- Zimmermann, E., Peschl, M. F., & Römmer-Nossek, B. (2010). Constructivist Curriculum Design for the Interdisciplinary Study Programme MEi: CogSci--A Case Study. Constructivist Foundations, 5(3).

Author Information

Bazar Rakhmetova*

https://orcid.org/0000-0001-9409-2716

*: Corresponding Author

Arkalyk Pedagogical Institute named after I.

Altynsaryn

17 Auelbekova street, Arkalyk.

Kazakhstan

Contact e-mail: bazar-65@mail.ru

Aibek Kalivev

https://orcid.org/0000-0001-6635-8142

Arkalyk Pedagogical Institute named after I.

Altynsaryn

17 Auelbekova street, Arkalyk.

Kazakhstan

Aisaule Duisebekova

https://orcid.org/0000-0002-9485-8096

Arkalyk Pedagogical Institute named after I.

Altynsaryn

17 Auelbekova street, Arkalyk.

Kazakhstan

Zina Koldasbaeva

https://orcid.org/0009-0002-4164-4665

Arkalyk Pedagogical Institute named after I.

Altynsaryn

17 Auelbekova street, Arkalyk.

Kazakhstan

Zaure Galymzhanova

https://orcid.org/0009-0002-5622-652X

Arkalyk Pedagogical Institute named after I.

Altynsaryn

17 Auelbekova street, Arkalyk.

Kazakhstan