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An Examination of the Elementary School Teachers' Preferred Teaching Methods and Instructional Technologies in Terms of Various Variables in Life Study Lesson

Mustafa Bektaş[1]

[1]*Sakarya University, Faculty of Education, Sakarya, Turkey*

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ABSTRACT

The purpose of the research is to examine the preferred teaching methods and instructional technologies of the elementary school teachers in the life study lesson in terms of various variables. The cross sectional survey method which is one of the survey methods has been used in the research. During the first term of the academic year 2012-2013, 176 elementary school teachers, teaching in the elementary schools in the city centre of Sakarya have been included in the research. The results of the research indicated that a great majority of the life study lessons elementary school teachers did not receive sufficient in-service training for instructional technologies; a considerable majority of them used teacher-centered methods; they did not use the instructional technologies frequently when they preferred the methods of discussion, field trip and observation, role playing, drama, case study, problem-based learning, project-based learning and cooperative learning; more senior elementary school teachers used the smart board less and teacher-centered teaching methods more.

Keywords:
Life study lesson, instructional technology, teaching method, elementary school teacher.

Introduction

Scientific developments lead many alteration and progress that simplify the human life. While approaching these developments in terms of education, there are two remarkable and important topics which are technological and methodological developments. In life study lesson –one of the major courses of the elementary schools, the elementary school teachers benefit from the teaching methods and instructional technologies depending on the type of acquisition.

Indicating that the life study lessons are the axis of teaching, Baymur (1947) underlines both the lesson content and the teaching method by saying "Life study lesson is not of the verbal lessons to be read in the books or to be recited; they are the lessons for observations, researches, experiments, occupation and simulation". The life study lesson –which aims the students of 1st, 2nd and 3rd grade to identify not only themselves, but also the society and the world they live in; has taken part in the elementary school curriculums of 1926, 1936, 1948, 1968 and 1998 under the same name. Being built up based upon the collective teaching, this lesson was reconstituted in accordance with the constructivist approach in the elementary school curriculums of 2005 (MEB, 2005). Binbaşıoğlu (2003) defines the collective teaching that has of an importance in the life study lesson as the teaching system; which provides students with acquiring knowledge, skills and more habits by using the methods of observation, simulation, occupation and experimentation through evaluating with their senses their natural or physical and social environment

[1]Corresponding author's address: Sakarya University Faculty of Education, Turkey.
Telephone:+90 264 614 10 33-7158
Fax: +90 264 614 10 34
e-mail: mbektas@sakarya.edu.tr

without disrupting the unity of the life subjects that are unitary one each. For achieving the life study lesson's objectives, it is very important to choose the methods relevant to the objectives of this lesson and to create the learning environment relevant to the lesson content as this lesson has a crucial function for individuals in their identifying of social facts, events and their inner circle (Aykaç, 2011). The main significance in the life study lesson is the happiness of the students to a great extent. The happiness of the students in the life study lesson –their one of the very first lessons of their school life, will have a positive effect on their attitudes and perceptions towards the school and learning (Bektaş, 2012). Life study lesson basicsforms of the social studies lesson and science and technology lesson which will being in fourth grade. Life study lesson differs from social studies lesson in terms of content. Because life study lesson content consists of a combination of content which are "social studies" and "science and technology" lessons. Life study lesson shows difference from both lessons in terms of content.The happiness of the students will mainly depend on the teaching methods preferred by the elementary school teachersin the life study lesson.

Horzum (2012) puts the teaching methods in order discussed in various aspects in many studies as the teaching methods to be used in the life study lessons; which are lecture (Asan and Güneş, 2000), question and answer (Demirel, Tuncel, Demirhan and Demir, 2008), discussion, field trip and observation (Aykaç, 2005), role playing (Önder, 1999), drama (Karadağ and Çalışkan, 2005; Vural and Somers, 2011), game (Kutluca, etc., 2009; Yağız, 2007), problem based learning (Açıkgöz, 2004), project based learning (Çubukçu, 2011) and cooperative learning (Doymuş and Doğan, 2011). The teaching methods stated here might contribute to learning only when the relevant learning environments are designed.

In terms of societies' future, one of the most important fields, where technology is used, is education. Particularly in the developed countries, all the societies are in the effort of bringing their individuals in a quality education by availing from technology (MEB, 2004). The use of technology has been one of the standard components of the curriculums in modern-day classrooms (Lemlech, 2004). The most common instructional technologiesand materials use in the classrooms for teaching are computers, projectors, Internet, overhead projectors, televisions, videos, models (Birinci Konur, Sezen and Tekbıyık, 2010) and smartboards (Adıgüzel, Gürbulak and Sarıçayır, 2011). Teachers –the roles of who have been changed in education with the effect of the technological developments, should teach their students how to use the technology for learning and use of the instructional technology (Kurtdede Fidan, 2008). Literature reveals that the teaching opportunities expand as the technology evolves. Further researches should be done for evaluating how much effective the technological applications are on learning (Schunk, 2011). Various studies have been carried out scoping teaching methods and instructional technologies which teachers use in "social sciences" and "science and technology" lessons that life studies lesson constitutes a basis (Sağlam, 2011; Kahyaoğlu, 2011 and Birinci Konur, Sezen and Tekbıyık, 2010).Although active teaching methods were included in the Life Study Lesson Curriculum, Aykaç (2011) found that a great majority of the teachers use very less the method and techniques –which are of vital importance for this lesson; such as field trip and observation method, station technique, six thinking hats technique, speech circle and idea development techniques. On the other hand, the absence of research on the instructional technologies used by the elementary school teachers in the life study lesson in accordance with the teaching methods they choose makes this study important.

The purpose of the research is to investigate the preferred teaching methods and instructional technologies in the life study lesson of the elementary school teachers in the elementary schools in terms of various variables.For this purpose, answers are sought for the following questions.

1. Are there instructional technologies in the classes/schools of elementary school teachers?
2. How often and which methods do elementary school teachers use in their life study lesson?
3. Which teaching methods and instructional technologies do elementary school teachers use in their life study lesson?
4. Do the elementary school teachers' gender affects instructional technology preferences in life study lesson?
5. Do the seniority of elementary school teachers affect the instructional technology preferences in life study lesson?
6. Do the classroom sizes of elementary school teachers affect the instructional technology preferences in life study lesson?

Method

Research Model

Cross sectional survey method, being one of the general survey methods, has been used in this research. In the researches designed in accordance with the cross sectional survey method, measurements are made at a time in accordance with the specialties of the variables to be portrayed (Fraenkel and Wallen, 2006).

Participants

Population of the research was consisted of approximately 1000 elementary school teachersin the city center of Sakarya. 20% of these teachers were taken to the sample. Convenience sampling method was preferred for sampling. During the first term of the academic year 2012-2013,200 elementary school teachers teachingin the elementary schools have been included in the research. 24 of those teachers were eliminated from the scope of the research since they did not answer some items in the survey. Research was maintained through the data set belonging to the total of 176 elementary school teachers. While evaluating the demographical information of the participants, it was conferred that 100 (56.8%) of the elementary school teachers were female and 76 (43.2%) of the elementary school teachers were male. Besides, 49 (27.8%) of the elementary school teachers were from 1 to 10 years, 70 (39.8%) of the elementary school teachers were from 11 to 20 years, 44 (25.0%) of the elementary school teachers were from 21 to 30 years and 13 (7.4%) of the elementary school teachers were from 31 to 40 years in terms of seniority. Furthermore, it was conferred that 56 (31.8%) of the elementary school teachers were instructing in the 1st grade, 59 (33.5%) of the elementary school teachers were instructing in the 2nd grade and 61 (34.7%) of the elementary school teachers were instructing in the 3rd grade in the research process. 111 (63.1%) of the elementary school teachers declared that they participated in an in-service training course for instructional technologies, while 65 (36.9%) of the elementary school teachers declared that they did not. When the elementary school teachers were asked their classroom size, 11 (6.3%) of the elementary school teachers answered that they had 11-20 students, 107 (60.8%) of the elementary school teachers answered that they had 21-30 students and 58 (32.9%) of the elementary school teachers answered that they had 31 or more students in their classrooms.

Instruments

In the research, the survey "Life Study Lesson: The Use of Teaching Method and Instructional Technology Questionnaire" developed by the researcher was used in order to specify the instructional technologies that the elementary school teachers used according to the teaching methods and instructional technologies they preferred in the life study lessons. In this survey, a total of 124 questions were included: 5 of which were to obtain demographical information of the elementary school teachers, 7 of which were to determine the availability of the instructional technologies in the class or in the school, 12 of which were to determine the frequency of preference for the teaching methods and 12x7=84 of which were to determine the frequency of the use of instructional technologies in accordance with the preferred teaching methods. A total of 96 questions had the 5 point Likert type grading: 12 of which were to determine the frequency of the preference for the teaching methods in the survey and 84 of which were to determine the frequency if the use of instructional technologies. This grading was generated as "Always (5)", "Usually (4)", "Sometimes (3)", "Rarely (2)" and "Never (1)". The item pool intended for the items in the survey was generated as a result of review of the literature. Opinions of 3 field experts were received for the scope and appearance validity. After the relevant modifications had been made in the direction of the opinions received, the survey was applied. Cronbach's Alpha coefficient of the questionnaire was α=.86 in the study.

Data Collection and Analysis

The data collection tool was applied to the elementary school teachers participated in the research as delivering and picking up by hand. In the research, the percentage and frequency analyses of the level of use

of the instructional technologies and teaching methods of the elementary school teachers and the evaluation of that use in terms of gender, seniority and classroom size were carried out by the chi square analysis.

Findings

Primarily, it was investigated whether the elementary school teachers had the access to the instructional technologies in their classes, or not. 166 (94.3%) of the elementary school teachers participated in the research stated that they had a computer in their class and 6 (3.4%) of the elementary school teachers stated that they had a computer in their school to be used in their lessons, while 4 (2.3%) of the elementary school teachers stated that they could not use a computer in their lessons since there was not any. When asked the Internet access opportunities, 167 (94.9%) of the elementary school teachers stated that they had Internet connection in their class and 3 (1.7%) of the elementary school teachers stated that they had Internet connection in their school to be used in their lessons, while 6 (3.4%) of the elementary school teachers stated that they could not use the Internet connection in their lessons since they did not have a computer in their class. 168 (95.5%) of the elementary school teachers stated that they had a projector in their class and 3 (1.7%) of the elementary school teachers stated that they had a projector in their school to be used in their lessons, while 5 (2.8%) of the elementary school teachers stated that they could not use a projector in their lessons.

35 (19.9%) of the elementary school teachers stated that they had a smartboard in their class and 7 (4.0%) of the elementary school teachers stated that they had a smartboard in their school to be used in their lessons, while 134 (76.1%) of the elementary school teachers stated that they could not use a smartboard in their lessons. 2 (1.1%) of the elementary school teachers stated that they had an overhead projector in their class and 26 (14.8%) of the elementary school teachers stated that they had an overhead projector in their school to be used in their lessons, while 148 (84.1%) of the elementary school teachers stated that they could not use an overhead projector in their lessons. 3 (1.7%) of the elementary school teachers participated in the research stated that they had a video player and a television in their class and 20 (11.4%) of the elementary school teachers stated that they had a video player and a television in their school to be used in their lessons, while 153 (86.9%) of the elementary school teachers stated that they could not use a video and a television in their lessons. Finally, 11 (6.3%) of the elementary school teachers stated that they had models in their class and 106 (60.3%) of the elementary school teachers stated that they had models in their school to be used in their lessons, while 59 (33.5%) of the elementary school teachers stated that they could not use models in their lessons.

In the research, the elementary school teachers were asked secondly the frequency of the use of teaching methods in their life study lessons. 54 (30.7%) of the elementary school teachers participated in the research stated that they “always” used the method of lecture, while 108 (61.4%) of the elementary school teachers stated as “usually” and 14 (8.0%) of the elementary school teachers stated as “sometimes”. When evaluating the method of question and answer, 64 (30.7%) of the elementary school teachers stated that they “always” used that method, while 98 (55.7%) of the elementary school teachers stated as “usually” and 14 (8.0%) of the elementary school teachers stated as “sometimes”. 17 (9.7%) of the elementary school teachers participated in the research stated that they “always” used the method of discussion, while 53 (30.1%) of the elementary school teachers stated as “usually” and 73 (41.5%) of the elementary school teachers stated as “sometimes” and 33 (18.7%) of the elementary school teachers stated as “rarely”. Furthermore, 4 (2.1%) of the elementary school teachers participated in the research stated that they “always” used the method of field trip and observation, while 7 (4.0%) of the elementary school teachers stated as “usually” and 65 (36.9%) of the elementary school teachers stated as “sometimes” and 86 (48.9%) of the elementary school teachers stated as “rarely” and 14 (8.0%) of the elementary school teachers stated as “never”. 6 (3.4%) of the elementary school teachers participated in the research stated that they “always” used the method of role playing, while 46 (26.1%) of the elementary school teachers stated as “usually” and 95 (54.0%) of the elementary school teachers stated as “sometimes” and 25 (14.2%) of the elementary school teachers stated as “rarely” and 4 (2.3%) of the elementary school teachers stated as “never”. 8 (4.5%) of the elementary school teachers participated in the research stated that they “always” used the method of drama, while 53 (30.1%) of the elementary school teachers stated as “usually” and 83 (47.2%) of the elementary school teachers stated as “sometimes” and 29 (16.5%) of the elementary school teachers stated as “rarely” and 3 (1.7%) of the

elementary school teachers stated as "never". 17 (9.7%) of the elementary school teachers participated in the research stated that they "always" used the method of game, while 85 (48.3%) of the elementary school teachers stated as "usually" and 62 (35.2%) of the elementary school teachers stated as "sometimes" and 12 (6.9%) of the elementary school teachers stated as "rarely". Moreover, 36 (20.5%) of the elementary school teachers participated in the research stated that they "always" used the method of demonstration, while 80 (45.5%) of the elementary school teachers stated as "usually" and 48 (27.3%) of the elementary school teachers stated as "sometimes" and 12 (6.8%) of the elementary school teachers stated as "rarely". When evaluating the method of case study, 8 (4.5%) of the elementary school teachers participated in the research stated as "always", while 50 (28.4%) of the elementary school teachers stated as "usually" and 79 (44.9%) of the elementary school teachers stated as "sometimes" and 39 (22.2%) of the elementary school teachers stated as "rarely". 11 (6.3%) of the elementary school teachers participated in the research stated that they "always" used the method of problem-based learning, while 41 (23.3%) of the elementary school teachers stated as "usually" and 77 (43.8%) of the elementary school teachers stated as "sometimes" and 41 (23.3%) of the elementary school teachers stated as "rarely" and 6 (3.4%) of the elementary school teachers stated as "never". In addition, 4 (2.3%) of the elementary school teachers participated in the research stated that they "always" used the method of project-based learning, while 22 (12.5%) of the elementary school teachers stated as "usually" and 98 (55.7%) of the elementary school teachers stated as "sometimes" and 47 (26.7%) of the elementary school teachers stated as "rarely" and 5 (2.8%) of the elementary school teachers stated as "never". When evaluating the method of cooperative learning, 10 (5.7%) of the elementary school teachers participated in the research stated as "always", while 54 (30.7%) of the elementary school teachers stated as "usually" and 84 (47.7%) of the elementary school teachers stated as "sometimes" and 25 (14.2%) of the elementary school teachers stated as "rarely" and 3 (1.7%) of the elementary school teachers stated as "never".

When evaluating the answers of the elementary school teachers participated in the research for the questions to determine which teaching methods and how frequently they used those in the life study lessons, 61.4% of the elementary school teachers stated that they usually used a projector, 56.8% of the elementary school teachers stated that they usually used a computer, 52.8% of the elementary school teachers stated that they usually used Internet, 10.8% of the elementary school teachers stated that they usually used models, 9.1% of the elementary school teachers stated that they usually used a smartboard, 1.7% of the elementary school teachers stated that they usually used a video/television and 1.1% of the elementary school teachers stated that they usually used an overhead projector with the method of lecture. When evaluating the method of question and answer, 49.0% of the elementary school teachers stated that they usually used a computer, 47.2% of the elementary school teachers stated that they usually used a projector, 45.5% of the elementary school teachers stated that they usually used Internet, 10.8% of the elementary school teachers stated that they usually used models, 5.2% of the elementary school teachers stated that they usually used a smartboard, 1.1% of the elementary school teachers stated that they usually used a video/television and 1.1% of the elementary school teachers stated that they usually used an overhead projector. These findings indicate that the elementary school teachers in the life study lessons used the Internet pages and materials, or demos and materials compiled by computers via presentations with a projector for the method of lecture and the method of question and answer.

In the research, for the use of the method of discussion, 11.4% of the elementary school teachers stated that they usually used a projector, 10.2% of the elementary school teachers stated that they usually used a computer, 10.2% of the elementary school teachers stated that they usually used Internet, 9.7% of the elementary school teachers stated that they usually used models, 1.1% of the elementary school teachers stated that they usually used a smartboard, 0.6% of the elementary school teachers stated that they usually used a video/television and all of the elementary school teachers stated that they rarely used an overhead projector for this method. For the use of the method of field trip and observation; 10.2% of the elementary school teachers stated that they usually used Internet, 9.1% of the elementary school teachers stated that they usually used a projector, 8.5% of the elementary school teachers stated that they usually used a computer, 6.8% of the elementary school teachers stated that they usually used models, 0.6% of the elementary school teachers stated that they usually used a smartboard and all of the elementary school teachers stated that they rarely used an overhead projector and a video/television for this method. When evaluating the use of the method of role playing, 10.8% of the elementary school teachers stated that they usually used models, 8.5%

of the elementary school teachers stated that they usually used a computer, 8.0% of the elementary school teachers stated that they usually used Internet, 6.3% of the elementary school teachers stated that they usually used a projector, 0.6% of the elementary school teachers stated that they usually used a video/television and all of the elementary school teachers stated that they rarely used a smartboard and an overhead projector for this method. For the use of the method of drama 13.1% of the elementary school teachers stated that they usually used Internet, 11.4% of the elementary school teachers stated that they usually used a computer, 10.8% of the elementary school teachers stated that they usually used a projector, 8.0% of the elementary school teachers stated that they usually used models, 1.1% of the elementary school teachers stated that they usually used a smartboard, 0.6% of the elementary school teachers stated that they usually used a video/television and all of the elementary school teachers stated that they rarely used an overhead projector for this method. Those findings indicate that the elementary school teachers in the life study lessons did not usually prefer using the instructional technologies for the methods of discussion, field trip and observation, role playing, and drama.

For the use of the method of game –which is one of the student-based teaching methods often emphasized in the new teaching programs; 40.9% of the elementary school teachers stated that they usually used a projector, 40.3% of the elementary school teachers stated that they usually used a computer, 39.8% of the elementary school teachers stated that they usually used Internet, 10.8% of the elementary school teachers stated that they usually used models, 5.7% of the elementary school teachers stated that they usually used a smartboard, 0.6% of the elementary school teachers stated that they usually used a video/television and all of the elementary school teachers stated that they rarely used an overhead projector for this method. For the use of the method of demonstration, 52.8% of the elementary school teachers stated that they usually used a computer, 52.8% of the elementary school teachers stated that they usually used Internet, 52.3% of the elementary school teachers stated that they usually used a projector, 16.5% of the elementary school teachers stated that they usually used models, 5.7% of the elementary school teachers stated that they usually used a smartboard, 1.1% of the elementary school teachers stated that they usually used a video/television and 0.6% of the elementary school teachers stated that they usually used a video/television. Those findings indicate that the elementary school teachers in the life study lessons used the Internet pages and materials, or demos and materials compiled by computers via presentations with a projector for the method of demonstration.

In the research, for the use of the method of case study, 23.9% of the elementary school teachers stated that they usually used a computer, 23.3% of the elementary school teachers stated that they usually used a projector, 21.6% of the elementary school teachers stated that they usually used Internet, 8.5% of the elementary school teachers stated that they usually used models, 1.7% of the elementary school teachers stated that they usually used a smartboard, 0.6% of the elementary school teachers stated that they usually used a video/television and all of the elementary school teachers stated that they rarely used an overhead projector for this method. For the use of the method of problem-based learning, 17.6% of the elementary school teachers stated that they usually used a computer, 15.9% of the elementary school teachers stated that they usually used a projector, 15.3% of the elementary school teachers stated that they usually used Internet, 6.3% of the elementary school teachers stated that they usually used models, 1.7% of the elementary school teachers stated that they usually used a smartboard, 0.6% of the elementary school teachers stated that they usually used a video/television and all of the elementary school teachers stated that they rarely used an overhead projector for this method. For the use of the method of project-based learning, 13.6% of the elementary school teachers stated that they usually used a computer, 10.8% of the elementary school teachers stated that they usually used Internet, 10.2% of the elementary school teachers stated that they usually used a projector, 6.3% of the elementary school teachers stated that they usually used models, 0.6% of the elementary school teachers stated that they usually used a smartboard, 0.6% of the elementary school teachers stated that they usually used an overhead projector and all of the elementary school teachers stated that they rarely used a video/television projector for this method. For the use of the method of cooperative learning, 17.6% of the elementary school teachers stated that they usually used a computer, 15.3% of the elementary school teachers stated that they usually used Internet, 14.2% of the elementary school teachers stated that they usually used a projector, 8.5% of the elementary school teachers stated that they usually used models, 2.3% of the elementary school teachers stated that they usually used a smartboard, 0.6% of the elementary school teachers stated that they usually used a video/television and all of the elementary school

teachers stated that they rarely used an overhead projector for this method. Those findings indicate that the elementary school teachers in the life study lessons did not usually prefer using the instructional technologies for the methods of case study, problem-based learning, project-based learning and cooperative learning.

It was found out that gender of the elementary school teacher was not a significantly related variable ($p>.05$) for the use of computers ($\chi2(1) = 1.20$), Internet ($\chi2(1) = 0.23$), projectors ($\chi2(1) = 1.31$), smartboards ($\chi2(1) = 1.41$), overhead projectors ($\chi2(1) = 1.45$), video/television ($\chi2(1) = 0.82$) and models ($\chi2(1) = 1.04$). It was also found out that gender of the elementary school teacher was not a significant variable ($p>.05$) for the use of methods of discussion ($\chi2(2) = 0.36$), question and answer ($\chi2(2) = 2.09$), discussion ($\chi2(3) = 4.60$), field trip and observation ($\chi2(2) = 2.50$), role playing ($\chi2(3) = 3.15$), drama ($\chi2(3) = 4.52$), game ($\chi2(3) = 4.61$), demonstration ($\chi2(2) = 4.15$), case study ($\chi2(3) = 4.52$), problem-based learning ($\chi2(3) = 4.21$), project-based learning ($\chi2(2) = 2.60$) and cooperative learning ($\chi2(2) = 1.82$).

It was found out that seniority (1-20 years and over 20 years) of the elementary school teachers was not a significantly related variable ($p>.05$) for the use of computers ($\chi2(1) = 2.15$), Internet ($\chi2(1) = 2.50$), projectors ($\chi2(1) = 1.51$), overhead projectors ($\chi2(1) = 0.37$), video/television ($\chi2(1) = 1.75$) and models ($\chi2(1) = 0.70$); however, it was a significant variable ($p<.05$) for the use of smartboards ($\chi2(1) = 9.13$). When evaluating the findings for the smartboard variable, it was conferred that the lower seniority elementary school teachers used the smartboards more. Besides, seniority of the elementary school teachers participated in the research was not a significantly related variable ($p>.05$) for the use of the methods of discussion ($\chi2(3) = 2.13$), field trip and observation ($\chi2(2) = 0.99$), role playing ($\chi2(3) = 4.80$), game ($\chi2(3) = 4.86$), demonstration ($\chi2(2) = 0.56$), case study ($\chi2(3) = 3.97$) and cooperative learning ($\chi2(2) = 0.51$); however, it was a significant variable ($p<.05$) for the use of the methods of lecture ($\chi2(2) = 13.52$), question and answer ($\chi2(2) = 12.13$), drama ($\chi2(3) = 8.90$), problem-based learning ($\chi2(3) = 9.21$) and project-based learning ($\chi2(2) = 13.60$). When we examine the methods which the variable of seniority were significant, it was conferred that mainly teacher-centered methods – lecture and question and answer- were preferred by the senior teachers; whereas the student-centered methods –drama, problem-based learning and project-based learning- were preferred by the lower seniority teachers.

It was found out that classroom size (1-20 students and over 20 students) was not a significantly related variable ($p>.05$) for the use of computers ($\chi2(1) = 0.54$), Internet ($\chi2(1) = 2.44$), projectors ($\chi2(1) = 0.39$), overhead projectors ($\chi2(1) = 2.05$), video/television ($\chi2(1) = 2.36$) and models ($\chi2(1) = 2.54$); however, it was a significant variable ($p<.05$) for the use of smartboards ($\chi2(1) = 8.27$). When we examine the findings related to the smartboard variable, it was conferred that the elementary school teachers with lower classroom size used the smartboards more. In addition, the classroom size of the elementary school teachers participated in the research was not a significantly related variable ($p>.05$) for the use of the methods of discussion ($\chi2(3) = 4.53$), field trip and observation ($\chi2(2) = 2.42$), role playing ($\chi2(3) = 1.37$), drama ($\chi2(3) = 2.97$), game ($\chi2(3) = 0.61$), demonstration ($\chi2(2) = 5.93$), case study ($\chi2(3) = 4.28$), project-based learning ($\chi2(2) = 6.38$) and cooperative learning ($\chi2(2) = 0.75$); however, it was found to be a significant variable ($p<.05$) for the use of the methods of lecture ($\chi2(2) = 9.52$), question and answer ($\chi2(2) = 10.13$) and problem-based learning ($\chi2(3) = 9.77$). When we examine the teaching methods which classroom size variable was significant, it was conferred that the mainly teacher-centered methods – lecture and question and answer- were preferred by the elementary school teachers with higher classroom size; whereas problem-based learning method which is a student-centered method were preferred more by the elementary school teachers with lower classroom size.

Discussion and Suggestions

Approximately 37% of the elementary school teachers stated that they did not receive in-service training concerning the instructionaltechnologies. This result shows parallelism with the result that Sağlam (2011) obtained. According to the result that Kahyaoğlu (2011) obtained, approximately 52% of the elementary school teachers stated that they did not receive in-service training concerning the instructional technologies. The difference might be resulting in the elementary school teachers' need to use the instructional technologies as they have those.

A great majority of the elementary school teachers stated that they had a computer, Internet access, and a projector in their classroom and they had the opportunity to make use of models. Approximately 25% of the elementary school teachers stated that they had a smartboard in their class and too few elementary school teachers stated that they had an overhead projector, a video and a television in their class. The study of Taşkaya and Bal (2010) in respect of the rarity of the overhead projectors, videos and televisions in the classrooms and the study of Adıgüzel, Gürbulak and Sarıçayır (2011) in terms of the smartboards for not becoming widespread show parallelism. According to the study of Kahyaoğlu (2011), nearly half of the schools had Internet, computers and projectors; whereas they had smartboards at the rate of 6%. When the results of the research were compared, there was a significant increase in the rates of the availability of the instructional technologies in the schools. What was remarkable in the study was that –partially a new instructional technology – the smartboards were in rare instructional technologies.

A great majority of the elementary school teachers stated that they preferred intensely the methods of lecture, question and answer, and discussion in the life study lessons. Aykaç (2011) express that the elementary school teachers sometimes use the active teaching methods. The results partly show similarities. The higher classroom sizes might be directing the elementary school teachers towards the teacher-centered methods in the life study lessons.

More than the half of the elementary school teachers stated that they used the method of field trip and observation, while too few of them stated that they had never used that method. This result shows similarities with that of Aykaç's (2011). The method of field trip and observation is one of the indispensable methods for the life study lessons. Nonetheless, the higher classroom sizes and the necessity for lots of correspondence might be leading the elementary school teachers to be suspended from using that method.

More than the half of the elementary school teachers stated that they used the methods of role playing, drama, game, demonstration, case study, problem-based learning, project-based learning and cooperative learning; while too few of them stated that they had never used those methods. This result and the result obtained from many studies that learning occurs in an active process rather than a passive process show consistency (Kara and Çam, 2007; Sever, Yalçınkaya and Mazman, 2009). The student-centered methods in the life study lessons not only ease learning, but also contribute in presenting the content complying with the level of the students.

It was conferred that the elementary school teachers in the life study lessons used the Internet pages and materials, or demos and materials compiled by computers via presentations with a projector for the methods of lecture, question and answer, game, and demonstration. This result complies with the views of Baek, Jung andKim's (2008) stating that many teachers expect to decrease the workload for classroom management, time to prepare the classroom and physical tiredness by using instructional technologies whereas it does not coincide with the proof of Gür, Özoğlu and Başer (2010) and Adıgüzel (2010) that "a great majority of teachers lecture without using computers or by using computers barely.

It was conferred that the elementary school teachers in their life study lessons did not usually prefer using the instructional technologies in the methods of discussion, field trip and observation, role playing, drama, case study, problem-based learning, project-based learning and cooperative learning.

This result does not show parallelism with the result of Butzin (2001) that "we should value the instructional technologies in order to transform the teaching environments into active teaching environments" as well as Hannafin and Land's (1997) stating that instructional technologies eliminate various problems for student centered learning environments. This might be because the absence of the instructional technologies for the elementary school teachers such as cameras, tape recorders, easily portable computers, etc. that they can use for the student-centered methods.

It was conferred that the gender differences of the elementary school teachers were not a significant variable in the use of teaching methods and instructional technologies. Teachers' genders having no effect on the use of the instructional technologies show parallelism with the studies of Aydemir (2012) and Kahyaoğlu (2011). According to this result, it might be implied that gender is not an effective variable for elementary school teachers' preferring the teaching method and instructional technologies.

It was conferred that the lower seniority elementary school teachers used the smartboards more. In different studies, it was concluded that the newly assigned teachers were capable of contributing their senior colleagues in the use of instructional technology (Usluel, Mumcu and Demiraslan, 2007; Seferoğlu, Akbıyık and Bulut, 2008; Kahyaoğlu, 2011; Aydemir, 2012). These results show parallelism with the result of the study. On the subject of the use of the instructional technologies, the newly assigned elementary school teachers are well-equipped than the senior teachers in virtue of the elementary school teacher training they receive.

Furthermore, it was conferred that the mainly teacher-centered methods - lecture and question and answer- were preferred by the senior teachers; whereas the student-centered methods –drama, problem-based learning and project-based learning- were preferred by the lower seniority teachers. This result of the study shows parallelism with the result of Akçadağ (2010) that "the more the senior teachers need in-service training for student-centered methods" and the emphasis that "the importance of student-centered learning" of Estes (2004). Teachers should be informed with the alterations and innovations in the field of educational sciences and their needs for in-service training should be fulfilled when necessary. That might be how the difference between the new and senior teachers can be eliminated.

It was conferred that the elementary school teachers with lower classroom size used the smartboards more. This result conflicts with the result of Kahyaoğlu (2011) that "the elementary school teachers do not usually make use of smartboards very often". This might be because of the absence of smartboards in the classes of the elementary school teachers in the Kahyaoğlu's sample.

It was conferred that the mainly teacher-centered methods –lecture and question and answer- were preferred by the elementary school teachers with higher classroom size; whereas the student-centered method – problem-based learning- were preferred more by the elementary school teachers with lower classroom size. This result shows similarity with the emphasis in the study of Kılınç (2007) that "the higher classroom size is one of the biggest hindrances for problem-based learning". Özden (2007) also stated that the "higher classroom size is a crucial handicap for student-centered education". Besides, Akınoğlu andTandoğan (2007) emphasized in their studies that "a student-centered environment should be provided in the classroom instead of a teacher-centered one for the problem-based learning". That is why; the classroom size should be decreased for the active use of the student-centered methods.

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