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Trainer training program developed for instructors about student-centered teaching-learning processes and its effects: A study of a curriculum development in higher education

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Abstract

In this study, the educational needs of the instructors in higher education institutions about student-centered teaching-learning processes were identified and, based on the Taba-Tyler program development model, a trainer training program was developed. This program was practised in the experimental model and then its effectiveness was evaluated. "Teaching-learning process instructors self-efficacy scale" and "academic success test" developed in the research extent were implemented to 62 instructors. It was observed, according to the findings, that the self-efficacy perception and academic achievement levels of instructors in teaching-learning processes increased significantly compared to the beginning of the program. It was accordingly concluded that the instructor training program which was prepared and implemented within the scope of this study to improve the teaching-learning process efficacy of the instructors is a favourable model and, in this sense, it can be used as a model in the trainer trainings by higher education institutions.

Keywords: Curriculum development; higher education; Taba-Tyler curriculum development model; trainer training program

1. Introduction

Quality and quality improvement studies in higher education have been one of the subjects most researched by academicians in recent years. The components of quality and quality assurance systems in higher education institutions have been discussed in these studies (Craft, 1994; Lim, 2001; Lomer, Papatsiba, & Naidoo, 2018; Phillips, & Kinser, 2018). One of the most important of these components is teaching-learning processes. In higher education institutions, it is emphasized that quality in teaching-learning processes

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is an important indicator reflecting the quality of the institution (ENQA, 2009; Thune, 2005; Higher Education Quality Board, 2016). It is seen in the literature that some studies discuss the education-teaching activities as an important component of the quality in higher education institutions and the efficacy of the instructors in the teaching-learning process as the practitioner of these activities (Hacıfazlıoğlu, 2006; Meraler, & Adıgüzel, 2012; Özdemir, 2015). It is emphasized that, to improve the quality of teaching and learning processes in higher education institutions, developing the instructors' skills and efficacy in teaching-learning processes and also increasing the theoretical and practical knowledge as to the current approaches and new developments in educational sciences are important (Devebakan et al., 2003; Mugisha, & Mwamwenda 1991; Lam et al., 2018; Pazarlıoğlu, Emeç, & Erdoğan, 1999; Saracaloğlu, 1991).

The teaching-learning process is the development of student behaviour, which the teaching programs want to achieve (Oliver, 1977), and the operation of necessary stimulants to bring the target behaviours in the students (Sönmez, 2005). According to Demirel (2017), making the students achieve the objectives requires planning and operating the learning experiences in terms of the student and teaching experiences in terms of the teacher. Since the 1960s, the modern educational approach, evolving with educational technology, has directed the students towards "learning-to-learn activities" rather than directly conveying the knowledge, and transformed the teacher's role of conveying knowledge into finding the necessary information and synthesizing it for solving problems, in other words, teaching students for self-learning (Geçer, & Özel, 2012; Twinning et al., 2013). At this point, the role of the educator in the teaching-learning process has evolved into the role of guidance creating the educational environment in which students are active and at the center of the course. According to today's modern education approach, it is suggested to create educational environments in which students are active in order to increase the quality in teaching-learning processes (Barkley, Cross, & Major, 2014; Bekdemir, & Polat, 2016; Gökbayrak, & Karışan, 2017; Maden, Durukan, & Akbaş, 2011; Şahin et al., 2004). It is no doubt that a qualified and efficient educator will be effective in achieving the objectives of the program and in the formation of the desired changes in the students (Büyükkaragöz, & Sünbül, 1997). In this sense, the instructors' efficacy in teaching-learning processes is the most important factor affecting the learning outcomes of the students. According to Akgün (2016), it is a step of higher education institutions to raise qualified students to be recognized as high quality institutions, and it can be achieved with qualified instructors. The Regulation on Quality Assurance of Higher Education (2015), which was published in the official gazette dated 23 July 2015, envisages the establishment of quality assurance systems in higher education institutions. It is stated that the establishment and operation of internal-external quality assurance system and the internal-external evaluation process in higher education institutions should be carried out according to the application principles to be prepared in

this regard. "Student-Centered Learning and Teaching Processes" was particularly emphasized under the main heading of the internal evaluation report prepared by the Higher Education Quality Board (2016). According to this report, the instructors are expected to be of high efficacy in creating student-centered learning and teaching processes in higher education. At this point, the instructors play a key role in creating student-centered teaching-learning processes or educational situations which are considered to be one of the important components of quality in higher education (Fry, Ketteridge, & Marshall 2008; Green, 1994; Higher Education Quality Board, 2016). One of the important tasks of the instructors is to teach. During teaching or doing some teaching activities, the instructors in higher education are performing the teaching in a sense (Arslantaş, 2011).

In the case of competency required by the teaching profession, one of the important concepts related to this subject is self-efficacy. It is seen when the studies in the educational sciences are examined that teachers or instructors' self-efficacy perceptions have been considered, for the last 30 years, as an important variable affecting the competencies towards teaching-learning processes (Poulou, 2007; Shaughnessy, 2004). That's because the individuals' perceptions or beliefs about their own competences reflect their perceptions about self-efficacy (Savran, & Çakıroğlu, 2007; Yılmaz, & Bökeoğlu, 2008). According to Uygur and Çakır (2015), one way to determine the competences of teachers or instructors is to measure the self-efficacy dimension. In this study, the competencies of the instructors in teaching-learning processes were determined with the "teaching-learning process instructors self-efficacy scale" which was developed within the scope of the research.

To identify the training needs of the instructors for teaching-learning processes in the study, "teaching-learning processes trainer training needs questionnaire" was developed. The questionnaire was applied to the faculty members with different titles in different faculties of Mersin University. According to the findings obtained from the questionnaire, a trainer training program for instructors was developed in line with the opinions and suggestions of educational science experts. The teaching-learning process teaching staff self-efficacy scale and teaching-learning process academic achievement test were applied before and after the training program to determine the effectiveness of the program. At the end of the program, the opinions and suggestions of the instructors about the program were taken through the open-ended opinion form.

In this context, for determining the trainer training subjects and developing the instructors' self-efficacy in teaching-learning processes, it was aimed to develop a teacher training program that can be used as a model and to test the effectiveness of the program with a one-group pre-test-post-test experimental design. For this purpose, the following questions were sought.

1. Is there a significant difference between the pre-test and post-test scores of instructors' self-efficacy perceptions in teaching-learning processes?

2. Is there a significant difference between the academic achievement pre-test and post-test scores of the instructors?

3. What are the opinions of the instructors about the trainer training program?

2. Method

In this study, the trainer training program is designed in the experimental model. According to Arikunto (1990, 272), experimental study is a study aiming to measure the effect of the investigated variable. There is no control group in this study but there is only one group designed as experimental group. A quasi-experimental design with no control group (Creswell, 2013) was employed in the study (The research design is given in Table 1). In the quasi-experimental design with no control group, the pre-test was applied to the experimental group before the program and the post-test was applied after the program. It is accepted that the application is effective if there is a significant difference in favour of post-test when the arithmetic mean of the pre-test and post-test scores taken from the measurement tools by the experimental group is compared (Karasar, 2007).

Table 1. Research design

Group	Pre-test	Process	Post-test
Science and Health Group (Whole Group)	O1	X	O3

In order to determine the participants in the study, it was decided to use purposive sampling method as a nonrandom sampling method. Nonrandom sampling is a sort of method in which the units to be sampled are determined regardless of the principle of randomness (Büyüköztürk, 2017). The purposive sampling is the method whereby one or more sub-sections of the universe are considered as a sample instead of one representative sample of it, and thus, the most appropriate part of the universe is observed (Tongco, 2007). In this study, the faculty diversity and different academic titles were taken into consideration while determining the participant group.

Table 2. Descriptive statistics for group variable (Ntotal=62)

Department	*f*	%
Science and Health	62	100

According to the findings in Table 2 above, 40.33% (f=25) of the instructors in the trainer training group are in the faculties and colleges of science while 59.67% (f=37) work in the faculties and colleges of health sciences.

Table 3. Descriptive statistics for academic title variable (N=62)

	Title	Science		Health		Total of Instructors	
		f	*%*	*f*	*%*	*f*	*%*
	Professor	10	40	16	43.2	26	41.2
	Associate Prof.	8	32	12	32.4	20	32.3
	Assistant Prof.	7	28	9	24.4	16	26.5
Total		25	100	37	100	62	100

According to the findings in Table 3 above, 40% (f=10) of the instructors in science group are professors, 32% (f=8) are associate professors, and 28% (f=7) are assistant professors. In health science group, 43.2% (f=16) of the instructors are professors, 32.4% (f=12) are associate professors and 24.4% (f=9) are assistant professors. 41.2% of all instructors are professors, 32.3% are associate professors and 26.5% are assistant professors.

2.1. *Data collection tools*

Three different data collection tools were used in this study. In order to measure the effect of trainer training program on teaching-learning process self-efficacy perception levels of the instructors, *"Teaching-Learning Process Instructor Self-Efficacy Scale" (TLPISES)* was used. The internal consistency coefficient (Cronbach-alpha) of the self-efficacy scale, which is composed of a single dimension and 40 items, was calculated as .98. *"Academic Achievement Test for Teaching-Learning Process" (AATTLP)* was used in order to measure the effect of trainer training program on academic achievement of instructor. The item analysis and reliability study was performed by the researchers and KR-20 reliability of the academic achievement test, which consists of 24 items, was calculated as .70. Lastly, "*Instructor Opinion Questionnaire for Trainer Training Program*" was used to determine the opinions and suggestions of the instructors about the trainer training program.

2.2. Reliability and validity

For the reliability of the data collection tools used in the study, the Cronbach-Alpha internal consistency coefficient of self-efficacy scale and the KR-20 reliability coefficient of the academic achievement test were taken into account. In addition, the current reliability coefficients obtained for the measurement tools of the research are given in Table 4.

Table 4. Cronbach-alpha and KR-20 reliability coefficients

TLPISES		AATTLP	
Cronbach-Alpha reliability coefficient	The Current Cronbach-Alpha Coefficient	KR-20 Coefficient	The Current KR-20 Coefficient
.98	.95	.70	.71

According to the findings in Table 4, considering the experimental groups as a whole, the Cronbach-Alpha and KR-20 internal consistency coefficients were found to be 0.70 and above. The measurement tools with an internal consistency coefficient of .70 and above are considered to be reliable (Seçer, 2015, 106). To ensure reliability, the same trainers were employed in whole group where experimental study was conducted. The trainers are the professors, associate professors and assistant professors of educational sciences who have academic publications on teaching-learning processes and are experienced in in-service training. Content analysis was applied to the data to calculate the reliability of the data obtained from the open-ended questionnaire. Each item was examined separately by the researchers and an expert in the field, and every single item of consensus and dissidence was determined. Miles-Huberman (1994) consensus reliability of each item in open-ended questionnaire form was examined. The intercoder reliability coefficient of .70 and above shows the reliability of the study (Miles and Huberman, 1994). This reliability formula is as follows: [Consensus on data/(Consensus on data + Dissidence on data) × 100].

Table 5. Reliability coefficients and percentages of qualitative data content analysis for trainer training program

	Opinion Form Qualitative Data Content	Miles-Huberman Reliability Value	Miles-Huberman Reliability Percentage (%)
1	Opinions for the program	.85	85
2	Suggestions for trainer training programs to be held later	.86	86

The validity of the data collection tools was provided by the researcher during the scale development process for the scale and in the achievement test development process for the academic achievement test. The appropriateness of the data collection tools was decided after discussions with 5 field experts. Three of these field experts are in the curriculum and instruction department, one is in the assessment and evaluation department, and one is in the education technologies department.

2.3. Data analysis

1. When the self-efficacy variable was examined, it was seen that the pre-test and post-test scores showed a normal distribution (Dpre-test (62) = .097, P>.05; Dpost-test (62) =

.107, P>.05). Due to the normality, it was decided to examine this sub-problem with the t-test for the paired-samples.

2. When the academic achievement variable was examined, pre-test scores were found to show normal distribution [Dpre-test(53)=.118, p>.05]; however, post-test scores did not [Dpost-test(53)=.166, p<.05]. Therefore, in order to determine whether there is a statistically significant difference between the pre-test and post-test scores of the academic achievement scores of the instructors, it was decided to apply the non-parametric Wilcoxon Signed Ranks Test for the paired-samples.
3. As a result of the reliability analysis for the answers to the questions "What are your opinions on the second trainer training program (in terms of learning outcomes, content, duration, process, evaluation, etc.)?" and "What are your suggestions for the trainer training to be held later?", Miles-Huberman coder reliability consensus values were found .85 and .86 respectively.

2.4. Research process

The following procedures were performed during the study.

A. Development of Measurement Tools
    1. Teaching-Learning Process Instructors Self-Efficacy Scale
    2. Academic Achievement Test for Teaching-Learning Process

B. Developing the Trainer Training Program (According to the Taba-Tyler Model)
    1. Start-up Phase: Identifying the Problem
    2. Determining the Needs of Trainer Training by Questionnaire (Needs Survey)
    3. Setting the Goals to be achieved
    4. Determining the Learning Outcomes
    5. Selecting Training Program Content
    6. Organizing the Training Program Contents
    7. Identifying and Organizing Learning Experiences (Experimental design)
    8. Evaluation of the Program (Using measurement tools)
    9. Formulating the Process
    10. Completion: Writing the Program

2.4.1. Stages of developing the trainer training program

In this study, Taba-Tyler Model was chosen as a program development model in which the trainer training program would be developed. Program development plan followed in this study is shown in Figure 1 below.

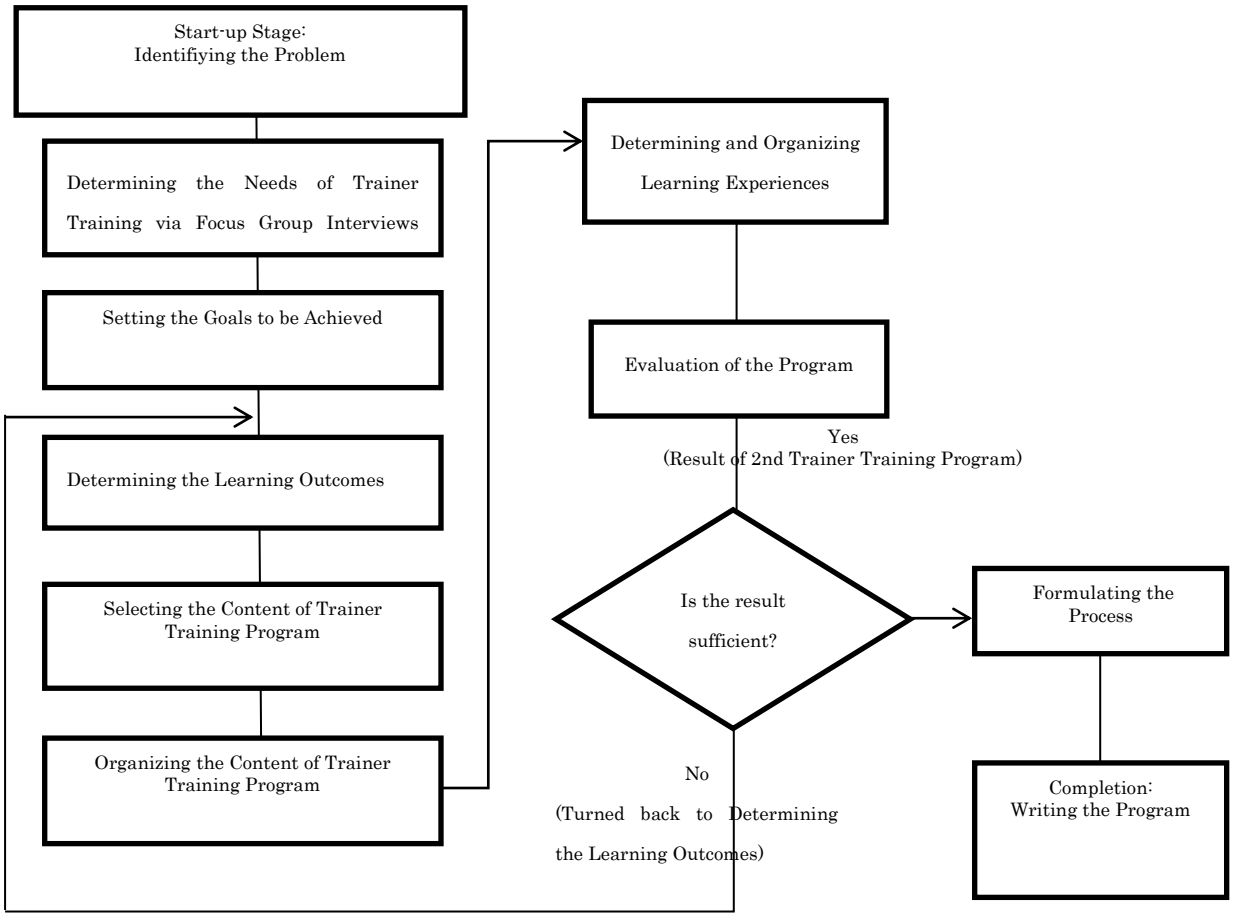

Figure 1. Stages of developing the trainer training program (according to Taba-Tyler Model)

The focus group meeting was held with the participation of 6 instructors from the Department of Curriculum and Instruction. The instructors who participated in the focus group meeting stated that there were many problems about teaching-learning processes in higher education and majority of these problems were related to the instructors' efficacy in teaching-learning process. As for the solution to this problem, the instructors suggested arranging trainer training programs regularly in line with the needs. To this end, a need assessment questionnaire was prepared for the instructors in order to construct the contents and extent of the training program according to the needs. The questionnaire was applied to 173 instructors of Mersin University and the trainer training contents required for teaching-learning processes were determined. According to the findings obtained from the needs assessment questionnaire, the following courses were determined to be included in the trainer training program with the common views of the instructors from

Department of Education Curriculum and Instruction, Department of Test and Assessment in Education, Department of Education Management Audit Planning and Economics, Department of Guidance and Psychological Counselling and Department of Computer and Education Technologies.

1. Student-Centered Course Design
2. Assessment and Evaluation
3. Use of Information and Communication Technologies in Education
4. Learning-Teaching Theory and Approaches
5. High-Level Thinking Skills
6. Student Motivation and Communication
7. New Approaches in Classroom Management

After determining the courses to be applied in the program, the related departments determined the content of the courses in line with their field and the content in accordance with the learning outcomes. The content was organized in a way to be appropriate to the course hours, content, scope and instructor characteristics. Then, it was determined through which learning experiences the content would be achieved. After the learning experiences were organized, an evaluation was made in order to determine what extent the instructors achieved these learning outcomes and how effective these experiences were in achieving the expected outcomes.

This whole process from the needs assessment to the end of the evaluation makes up the development and implementation process of the first trainer training program. This process covers a period of approximately 1 year between September-2016 and September-2017. The opinions of the participating instructors were taken at the end of the first trainer training program implemented in September 2017. With regard to the instructors' opinions and suggestions about the program, a couple of changes and arrangements were made in the program. Following the editing made in the program, the learning outcomes related to the courses included in the trainer training program were re-reviewed by the instructors who would take part in the second trainer training, and the achievements were finalized. The learning outcomes in the last trainer training program are given in Table 6 below.

Table 6. The courses and learning outcomes in trainer training program

Course No	Course Name	Learning Outcomes

1	Student-Centered Course Design	➢ Knows higher education qualifications framework. ➢ Understands the teaching activities in the lesson plan. ➢ Develops the activity plan in one's field.
2	Assessment and Evaluation	➢ Explain the relationship between assessment and evaluation. ➢ Understands the importance of using measurement tools with validity and reliability. ➢ Develops, applies and scores appropriate tools for the measurement purpose.
3	Use of Information and Communication Technologies in Education	➢ Can tell the technologies they can use while teaching ➢ Can use these technologies ➢ Blogs ➢ Learning Management Systems (LMS) ➢ Social media
4	Learning-Teaching Theory and Approaches	➢ Defines the general characteristics of constructivist theory ➢ Explains how to carry out a course according to constructivist teaching. ➢ Designs a course plan suitable for constructivist teaching. ➢ Defines the basic characteristics of problem based teaching. ➢ Designs a project based learning environment.
5	High-Level Thinking Skills	➢ Knows the principles of creative thinking skills. ➢ Applies techniques that improve creative thinking skills. ➢ Comprehends the principles of critical thinking skills. ➢ Explains the concepts related to problem solving skills.
6	Student Motivation and Communication	➢ Recognizes the internal and external factors that motivate human behaviour. ➢ Motivate the students in the learning process in line with their learning objectives.
7	New Approaches in Classroom Management	➢ Defines the classroom management area and its dimensions. ➢ Distinguishes between the approaches of classroom management. ➢ Defines the factors that play a role in classroom management. ➢ Finds solutions to classroom management problems.

In line with the learning outcomes they determined, the instructors in the second trainer training chose the content and arranged it according to the course hours, subject, scope and instructor characteristics in order to be applied in teaching-learning processes. After determining the learning outcomes as to the second trainer training program and selecting the content to which the gains will be made, it was given through which learning experiences the content is covered. The learning experiences for each course were prepared separately by the instructors of the related departments. In the following stage, the learning experiences were arranged by using necessary materials and other teaching elements in educational environments. In order to determine the effect of learning experiences during the second trainer training on achieving the expected learning outcomes, it was decided to use the 24-item academic achievement test which was formed through the item analysis. On account of the findings obtained through self-efficacy scale and academic achievement test which were applied as pre-test and post-test at the beginning and end of the training program, as well as the open-ended questionnaire applied at the end of the program, it was concluded that trainer training program is efficient and applicable for the future trainings.

3. Findings

3.1. Findings from the teaching-learning process instructors self-efficacy scale

Chart 1 below shows the results of the self-efficacy perception scores of the science group, health group and all the instructors, which were reached by analysing the responses given to the instructors' self-efficacy scale during the teaching-learning process.

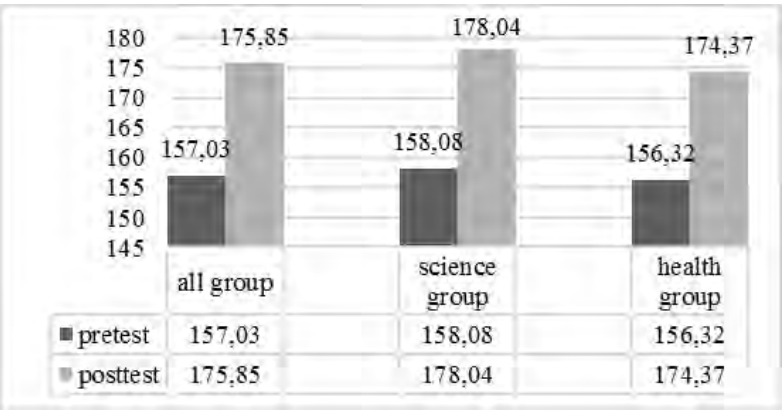

Chart 1. Pre-test and post-test mean scores of the groups for the self-efficacy perception

According to the findings in Chart 1, the self-efficacy perceptions post-test scores are seen to be significantly higher than the pre-test scores. In order to determine whether the difference between instructors' self-efficacy perceptions pre-test and post-test scores were statistically significant, t-test was applied for the paired samples.

Table 7. Paired samples t-test results for self-efficacy perception pre-test and post-test scores (N=62)

Group	Test	N	$\overline{X}$	SD	sd	t	p	η^2
Whole Group	Pre-test	62	157.03	24.52	61	-7.076	.000	0.898
	Post-test	62	175.85	20.80				

According to the Table 7 above, a statistically significant difference was found between the pre-test and post-test mean scores of the instructors' self-efficacy perception levels [t(61)=-7.076, P<.05]. Considering the mean scores, it is seen that in the whole group SDpre-test=24.52, $\overline{X}$ pre-test=157.03 and SDpost-test=20.80 and $\overline{X}$ post-test=175.85, which shows the significant difference in favour of post-test. Moreover, it is seen that the trainer training program during the experimental process has a large effect size (η^2 = 0.898) on the instructors' self-efficacy perception levels [Cohen's d (large effect size): 0.75≤0.898<1.10].

3.2. Findings from the academic achievement test

In this section, the effects of the trainer training program for the instructors' teaching-learning processes on their academic achievement were examined. For this purpose, statistical data regarding the scores obtained from the academic achievement test of the study group before and after the training program were presented. In the Chart 2 below, the pre-test and post-test mean scores of the instructors are shown according to the groups.

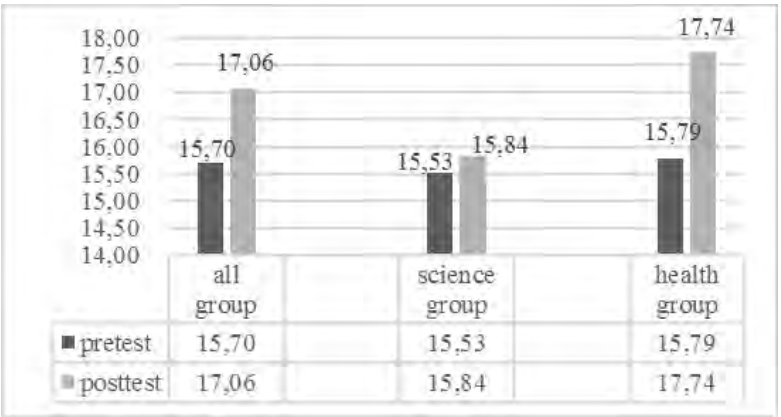

Chart 2. Pre-test and post-test mean scores of the groups for the academic achievement

According to the results of normality test, pre-test scores were found to show a normal distribution while post-test scores did not. Therefore, in order to determine whether there is a significant difference between the academic achievement pre-test and post-test scores of the instructors, it was decided to apply the non-parametric Wilcoxon Signed Ranks Test for the paired samples.

Table 8. Wilcoxon signed ranks test results for academic achievement pre-test and post-test scores

Group	Test		N	Mean Rank	Rank Sum	Z	p	η²
Whole Group	Post-test Pre-test	Negative Rank	13	19.92	259.00	-3.256	.001	0.471
		Positive Rank	34	25.56	869.00			
		Equal	6	-	-			

According to Table 8 above, a significant difference was found between the mean rank of the academic achievement pre-test and post-test scores of instructors. The variation is in favour of post-test scores [Z=-3,256, p<.05]. When the means are examined, it is seen that SSpre-test=2.539, $\bar{X}$ pre-test=15.70 and SSpost-test=2.678, $\bar{X}$ post-test=17.06. In addition, it is seen that the trainer training program in the experimental process has a medium

effect size (η^2=0.471) on the academic achievement levels of the instructors [Cohen's d (medium effect size): 0.40≤0.471<0.75].

3.3. Findings from the views and suggestions of the instructors about "trainer training program"

3.3.1. Views of the instructors about "trainer training program"

In order to determine the views of the instructors about the second trainer training program, they were asked the question "What are your views on trainer training program (in terms of learning outcomes, content, duration, process, evaluation, etc.)?" For the second trainer training program, the instructors the opinion "it was a useful/educational program" with a percentage of 21.917% (f=16). That is followed by "It was a pleasing program" (13.698%, f=10), "It was a training program that I needed" (8.219%, f=6), "I realized my incompetent sides thanks to the program and I updated my knowledge" and "The lessons requiring active participating were fun" (6.849%, f=5), and "The duration of the course for the technology education was insufficient" and "The process of the program was positive" (5.479%, f=4). Then, the views of the instructors about the trainer training program followed as "Instructors' approach was positive", "Program duration was adequate and appropriate", "Physical and technical infrastructure were troublesome", "Program duration fell short" (4.109%, f=3), "The duration of the assessment-evaluation course was insufficient", "Information review was made in some courses" "Class management was inadequate", " There were too many slides" and "Presentation techniques were inadequate" (2.739%, f=2). Lastly, it was stated "The content of the training was insufficient to answer the questions asked in the evaluation" with a percentage of 1.369% (f=1). The findings of the study show that 21.917% (f=16) of the instructors found the training program useful/educational. It is seen that the positive opinions about the program overweigh the negative views. While the percentage of negative opinions about the training program was 23.282% (f=17), it is 76.718% (f=56) for the positive opinions.

3.3.2. Suggestions of the instructors about "trainer training program"

The question of "What are your suggestions for the future training program?" was asked to the instructors. They suggested "The training period can be extended for a longer period of time" at the rate of 12.820% (f=10). Then, it was suggested "Some courses can be taught hands-on rather than theoretically if it is available" and "Training can be planned separately according to the needs of groups (science group, social group, health group, fine arts group, etc.)" with a percentage of 10.25 (f=8), "Physical conditions and infrastructure (classes, laboratories, computers, internet connection, etc.) can be improved", "The content can be updated", "Longer lectures can be given in some subjects", "Groups may be smaller" and "Assessment-evaluation course duration can be increased" with a percentage of 7.692

(f=6). These were followed by "Time management can be improved", "Trainings can be held for more specific subjects" and "Slides can be associated more with in-class issues" at a rate of 5.128 (f=4) and "Practical information can be given more" at a rate of 3.846 (f=3). The findings reveal that performing the program hands-on, properly organizing the training programs according to the groups and improving the physical conditions are of the outweighing suggestions.

4. Discussion

In the study, a significant difference between the pre-test and post-test results about the self-efficacy levels of the instructors can be considered as an indicator of the positivity and applicability of the program. As to the academic achievement mean scores of the instructors, there was also found a significant difference between the pre-test and post-test scores. This difference between pre-test and post-test scores can be accepted as an indicator that the knowledge of instructors about teaching-learning processes considerably improved with the trainer training program when compared to the beginning level. The significant difference shows that the instructors gained a greater number of content about the teaching-learning process at the end of the program, which denotes that the trainer training program is efficient enough to provide the instructors with the expected learning outcomes about the teaching-learning process.

It was observed that the experimental process employed in the study had a significant difference on self-efficacy and academic achievement levels. In parallel with the findings obtained in the study, in some experimental studies conducted in the field of higher education, self-efficacy (Alt, 2015; Drago, Rheinheimer, & Detweiler, 2018; Dunbar et al., 2018; Kutluca & Ekici, 2010; Postareff, Lindblom-Ylänne, & Nevgi, 2008; Cassidy, 2012; Van Dinther, Dochy, & Segers, 2011; Yelken, 2009) and academic achievement (Al-Qahtani & Higgins, 2013; Carle, Jaffee & Miller, 2009; Subaşı, 2000; Yang, & Wu, 2012) were found to be significantly increased.

The opinions of the instructors about the trainer training program were also examined in the study. The instructors often used the word "new" when expressing their purpose to participate in the first trainer training. This is thought to arise as a result of the instructors' desire to update themselves, to acquire new knowledge and to develop in terms of academic efficacy in teaching-learning processes. In this sense, it seems that they want to increase their efficacy in teaching-learning processes. It was seen that the instructors found the training program to be highly useful. The findings of the study is supported by Elias' (2018) study which examines the views of the participants at the end of a trainer training program related to micro teaching. It was observed at the end of the program that the participants had positive attitudes and opinions towards their profession in the teaching process.

The program is thought to be found useful due to the facts that a trainer training program for the instructors has not been held for a long time, the instructors need to update themselves, they participate in the program with a high motivation, and the trainer training program was absolutely developed and implemented by the professors in educational sciences. Similar findings were also obtained in the study of Soran, Akkoyunlu and Kavak (2006). It was observed in the study that the instructors found the program useful and they completed the program achieving serious outcomes.

5. Results

When considering the teaching-learning process efficacy of the instructors who participated in the trainer-training program for the teaching-learning processes, which was applied as an experimental process, a significant difference was revealed between the pre-test and post-test scores. The difference between pre-test and post-test scores is in favour of post-test scores. A significant difference was also found between the pre-test and post-test scores in terms of the academic achievements of the instructors who participated in the program, which is in favour of post-test scores. With regard to the groups, there was no significant difference between pre-test and post-test scores of the science group, while there was a significant difference between pre-test and post-test scores in the health group in favour of post-test scores. In this respect, the trainer training program can be claimed to serve the expected purpose. According to the instructors' views, they would like to attend this training with the purposes to be informed about new developments, to develop in the field of assessment and evaluation and to recognize the technological applications. The instructors stated that they found the training program to be very useful and they gained information in many fields. The instructors were found to have the idea that they developed particularly in the areas of student-centered course design and assessment-evaluation methods. However, more than half of the instructors have the opinion that the program is to be developed. They stated that the program could be adjusted to the undergraduate and graduate level, and the program could be prepared in accordance with higher education. It was concluded that the majority of the instructors had suggestions for the program and its implementation dimension, which are related to the content, media and material, selection for the program, participation and duration of the program. A great majority of the instructors found the program useful and enjoyable, having the expectations about the duration of the training to be extended and the courses to be taught hands-on.

To sum up, it is concluded in the study that there are some problems in teaching-learning processes in higher education, some of these problems are related to the instructors' self-efficacy in teaching-learning processes, and therefore, they need trainings about teaching-learning processes. It was also found out in the study that the trainer training program designed to meet the training needs improved the instructors' self-

efficacy in teaching-learning processes and their academic achievements, thus, the trainer training program is supposed to serve the expected purpose and can be employed as a model.

6. Suggestions

- Trainings to increase the awareness of the instructors in higher education institutions about the importance of teaching-learning processes can be organized.

- In this respect, the instructors in the higher education institutions can be ensured to regularly attend the training programs.

- It is recommended that the training program should be provided over a long period of time.

- It is recommended that the number of participants in the groups of the trainer training program should not exceed 20-25. Thus, it will be possible to create an interactive classroom environment that is more appropriate to education with the principles of andragogy.

- It is recommended that the trainings should be arranged on dates that will not interfere with the courses and other duties of the instructors.

- It is recommended to involve the same instructors in the training at least once a year to make them acquire new concepts and knowledge.

- By keeping the program duration longer, it is recommended to examine in other studies whether the program leads to a differentiation in attitudes, motivation, anxiety, etc.

Limitations

The most important limitation of this study is the conduct of an empirical study with academic staff (professors, associate professors and assistant professors). The limited number of studies conducted experimentally in the literature is due to this limitation.

References

Akgün, M. (2016). Yükseköğretimde ideal öğretim elemanı nasıl olmalıdır?. *Kaygı-Uludağ Üniversitesi Fen-Edebiyat Fakültesi Felsefe Dergisi, 26*(1): 197-204. doi:10.20981/kuufefd.97116

Al-Qahtani, A. A., & Higgins, S. E. (2013). Effects of traditional, blended and e-learning on students' achievement in higher education. *Journal Of Computer Assisted Learning, 29*(3): 220-234. doi: 10.1111/j.1365-2729.2012.00490.x

Alt, D. (2015). Assessing the contribution of a constructivist learning environment to academic self-efficacy in higher education. *Learning Environments Research, 18*(1): 47-67. doi: 10.1007/s10984-015-9174-5

Arikunto, S. (1990). *Manajemen penelitian*. Jakarta: Rineka Cipta.

Arslantaş, H. İ. (2011). Öğretim elemanlarının öğretim stratejileri-yöntem ve teknikleri, iletişim ve ölçme değerlendirme yeterliklerine yönelik öğrenci görüşleri. *Mustafa Kemal Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 8*(15): 487-506.

Barkley, E. F., Cross, K. P., & Major, C. H. (2014). *Collaborative learning techniques: a handbook for college faculty*. New York: John Wiley & Sons.

Bekdemir, Ü., & Polat, S. (2016). 2005 sosyal bilgiler öğretim programı ile 2015 sosyal bilgiler taslak öğretim programı üzerine karşılaştırmalı bir çalışma. *Electronic Turkish Studies*, *11*(19): 145-160. doi:10.7827/TurkishStudies.10057

Büyükkaragöz, S., and Sünbül, A. M. (1997). *Öğretmen adaylarının yeterlilik düzeyleri*. Paper Presented At The Dokuz Eylül Üniversitesi Eğitim Bilimleri Sempozyumu, İzmir.

Büyüköztürk, Ş., Çakmak, E. K., Akgün, Ö. E., Karadeniz, Ş., & Demirel, F. (2017). *Bilimsel araştırma yöntemleri.* 3th ed. Ankara: Pegem Akademi Yayıncılık.

Carle, A. C., Jaffee, D., & Miller, D. (2009). Engaging college science students and changing academic achievement with technology: a quasi-experimental preliminary investigation. *Computers & Educatio*n, *52*(2), 376-380. doi: 10.1016/j.compedu.2008.09.005

Cassidy, S. (2012). Exploring individual differences as determining factors in student academic achievement in higher education. *Studies in Higher Education, 37*(7): 793-810. doi: 10.1080/03075079.2010.545948

Craft, A. (Ed.). (1994). *International developments in assuring quality in higher education*. London: Routledge. doi: 10.4324/9780429444531

Creswell, J. W. (2013). *Research design: qualitative, quantitative and mixed methods approaches.* Thousand Oaks: Sage Publications.

Demirel, Ö. (1994). *Genel öğretim yöntemleri*. 1th ed. Ankara: USEM Yayınları.

Demirel, Ö. (2017). *Eğitimde kuramdan uygulamaya program geliştirme.* 25 th ed. Ankara: Pegem Akademi Yayıncılık.

Devebakan, N., Koçdor, H., Musal B., and Güner, G. (2003). Dokuz eylül üniversitesi sağlık bilimleri enstitüsünde lisansüstü eğitim kalitesinin arttırılması kapsamında öğrencilerin eğitime ilişkin görüşlerinin değerlendirilmesi. *Dokuz Eylül Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 5*(2): 30-44.

Drago, A., Rheinheimer, D. C., & Detweiler, T. N. (2018). Effects of locus of control, academic self-efficacy, and tutoring on academic performance. *Journal of College Student Retention: Research, Theory & Practice*, *19*(4): 433-451. doi: 10.1177/1521025116645602

Dunbar, R. L., Dingel, M. J., Dame, L. F., Winchip, J., & Petzold, A. M. (2018). Student social self-efficacy, leadership status, and academic performance in collaborative learning environments. *Studies in Higher Education, 43*(9): 1507-1523. doi: 10.1080/03075079.2016.1265496

Elias, S. (2018). Pre-service teachers' approaches to the effectiveness of micro-teaching in teaching practice programs. *Open Journal Of Social Sciences, 6*(5): 205-224. doi:10.4236/jss.2018.65016

ENQA. (2009). *Standards and guidelines for quality assurance in the european higher education area. ENQA:* Helsinki, Finland.

Fry, H., Ketteridge, S., & Marshall, S. (2008). *A handbook for teaching and learning in higher education: enhancing academic practice*. 3 th ed. UK: Simultaneously Published İn The By Routledge.

Geçer, A., and Özel, R. (2012). İlköğretim fen ve teknoloji dersi öğretmenlerinin öğretme-öğrenme sürecinde yaşadıkları sorunlar. *Kuram ve Uygulamada Eğitim Bilimleri 12*(3): 1-26.

Gökbayrak, S., & Karışan, D. (2017). Altıncı sınıf öğrencilerinin stem temelli etkinlikler hakkındaki görüşlerinin incelenmesi. *Alan Eğitimi Araştırmaları Dergisi, 3*(1): 25:40.

Green, D. (1994). *What ıs quality in higher education?*. Bristol: Taylor & Francis PA 19007-1598.

Hacıfazlıoğlu, Ö. (2006). *Avrupa Birliği yükseköğretim kalite göstergeleri ve Türkiye örneği* [Quality indicators in European higher education and Turkey sample], PhD diss., Marmara Üniversity, Istanbul.

Kalite Güvencesi Yönetmeliği. (2015, 23 Temmuz). *Resmi Gazete* (Sayı:29423). Retrived from http://www.resmigazete.gov.tr/eskiler/2015/07/20150723-3.html.

Karasar, N. (2007). *Bilimsel araştırma yöntemi.* 17 th ed. Ankara: Nobel Yayınları.

Kutluca, T., & Ekici, G. (2010). Öğretmen adaylarının bilgisayar destekli eğitime ilişkin tutum ve öz-yeterlik algılarının incelenmesi. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi, 38* (38): 177-188.

Lam, K. W., Hassan, A., Sulaiman, T., & Kamarudin, N. (2018). Instructional technology competencies as perceived by university lecturers in malaysia. *International Journal of Academic Research in Business and Social Sciences, 8*(3): 401-417. doi:10.6007/IJARBSS/v8-i3/3938

Lim, D. (2001). *Quality Assurance in Higher Education: A Study of Developing Countries*. London: Routledge. doi: 10.4324/9781315204147

Lomer, S., Papatsiba, V., & Naidoo, R. (2018). Constructing a national higher education brand for the uk: positional competition and promised capitals. *Studies in Higher Education, 43*(1): 134-153. doi: 10.1080/03075079.2016.1157859

Maden, S., Durukan, E., & Akbaş, E. (2011). İlköğretim öğretmenlerinin öğrenci merkezli öğretime yönelik algıları. *Mustafa Kemal Üniversitesi Sosyal Bilimler Enstitüsü Dergisi 8* (16): 255-269.

Meraler, S. ve Adıgüzel, A. (2012). Eğitim fakültesi öğrencilerinin yükseköğretimde kaliteye ilişkin görüşlerinin belirlenmesi. *Adıyaman Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 2012* (9): 123-144. doi:10.14520/adyusbd.203

Miles, M. B., & Huberman, A.M. (1994). *Qualitative data analysis: an expanded sourcebook.*2 th ed. Calif: SAGE Publications.

Mugisha, R.X., & Mwamwenda, T.S. (1991). Vocational training, ın-service courses and higher education for graduates ın botswana. *Studies in Higher Education 16*(3): 343-354. doi:10.1080/03075079112331382895

Oliver, A. I. (1977). *Curriculum ımprovement*: *a guide to problems, principles, and process.* Michigan: Harper & Row.

Özdemir, M. (2015). Avrupa Birliği yükseköğretim kalite göstergeleri bağlamında öğretim süreçleri ve öğrenme kaynaklarının incelenmesi [Examination of instructional procedures and learning resources within the context of european union higher education quality indicators (The sample of Gaziantep University)]. *Yüksek lisans tezi,* Gaziantep Üniversitesi, Gaziantep.

Pazarlıoğlu, M, Emeç, H., & Erdoğan, S. (1999). Dokuz Eylül Üniversitesi öğrencilerinin yükseköğretim beklenti değişkenlerinin faktör analizi ile incelenmesi. *Dokuz Eylül Üniversitesi İİB Fakültesi Dergisi, 14* (2): 97-109.

Phillips, S. D., & Kinser, K. (Eds.). (2018). *Accreditation on the edge: challenging quality assurance in higher education.* Baltimore: JHU Press.

Postareff, L., Lindblom-Ylänne, S., & Nevgi, A. (2008). A follow-up study of the effect of pedagogical training on teaching ın higher education. *Higher Education 56*(1): 29-43. doi: 10.1007/s10734-007-9087-z

Poulou, M. (2007). Personal teaching efficacy and ıts sources: student teachers' perceptions. *Educational psychology*, *27*(2): 191-218. doi: 10.1080/01443410601066693

Saracaloğlu, A.S., & Çelik, B. (2018). Web tasarımı ve programlama dersi öğretiminde proje tabanlı öğrenme yaklaşımı kullanımının öğrenci görüşlerine göre değerlendirilmesi. *Kastamonu Education Journal, 26*(2): 323-333. doi:10.24106/Kefdergi.389776

Savran, A., & Çakıroğlu, J. (2003). Differences between elementary and secondary preservice science teachers' perceived efficacy belies and their classroom management beliefs. *The Turkish Online Journal of Educational Technology, 2*(4), 15:20.

Seçer, İ. (2015). *Psikolojik test geliştirme ve uyarlama süreci: spss ve lısrel uygulamaları*. Ankara: Anı yayıncılık.

Shaughnessy, M. F. (2004). An interview with anita woolfolk: the educational psychology of teacher efficacy. *Educational Psychology Review, 16*(2), 153–176. doi:10.1023/B:EDPR.0000026711.15152.1f

Soran, H., Akkoyunlu, B., & Kavak, Y. (2006). Yaşam boyu öğrenme becerileri ve eğiticilerin eğitimi programı: Hacettepe Üniversitesi örneği. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi*, *30*(30): 201-2010.

Sönmez, V. (2005). *Program geliştirmede öğretmen el kitabı.* 12 th ed.. Ankara: Anı Yayıncılık.

Subaşı, G. (2000). Verimli ders çalışma alışkanlıkları eğitiminin akademik başarı, akademik benlik kavramı ve çalışma alışkanlıklarına etkisi. *Eğitim ve Bilim, 25* (117): 50-56.

Şahin, N. F., Cerrah, L., Saka, A., & Şahin, B. (2004). Yükseköğretimde öğrenci merkezli çevre eğitimi dersine yönelik bir uygulama. *Gazi Üniversitesi Gazi Eğitim Fakültesi Dergisi, 24*(3), 113:128.

Thune, C. (2005). Standards and guidelines for quality assurance in the european higher education area. *European Association For Quality Assurance in the European Higher Education*. Helsinki: Multiprint.

Tongco, M. D. C. (2007). Purposive sampling as a tool for ınformant selection. *Ethnobotany Research & Applications, 5*, 147-158.

Twining, P., Raffaghelli, J., Albion, P., & Knezek, D. (2013). Moving education ınto the digital age: the contribution of teachers' professional development. *Journal Of Computer Assisted Learning, 29* (5): 426-437. doi:10.1111/jcal.12031

Uygur, M., & Çakır, Ö. (2015). İngilizce öğretmenliği lisans öğrencilerinin özyeterlik inançlarının farklı değişkenlere göre incelenmesi. *Journal Of Qafqaz Unıversity, 3*(1): 89-104.

Van Dinther, M., Dochy, F., & Segers, M. (2011). Factors affecting students' self-efficacy in higher education. *Educational Research Review, 6*(2): 95-108. doi:10.1016/j.edurev.2010.10.003

Yang, Y. T. C., & Wu, W. C. I. (2012). Digital storytelling for enhancing student academic achievement, critical thinking, and learning motivation: a year-long experimental study. *Computers & education,* 59(2), 339-352. doi:10.1016/j.compedu.2011.12.012

Yelken. T. Y. (2009). Türkiye, Almanya ve Danimarka öğretmen yetiştirme programlarının standartlarının İngilizce öğretmen adayı görüşlerine göre değerlendirilmesi. *Kuram ve Uygulamada Eğitim Bilimleri, 9*(4): 2047-2094.

Yılmaz, K., and Bökeoğlu, Ç. Ö. (2008). İlköğretim okulu öğretmenlerinin yeterlik inançları. *Ankara Üniversitesi Eğitim Bilimleri Fakültesi Dergisi, 41*(2): 143-167.

Yükseköğretim Kalite Kurulu. (2016). *Kurum iç değerlendirme raporu hazırlama kılavuzu*. Retrived From http://www.yok.gov.tr/web/kalitekurulu/67