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TRAINNING OF SPECIAL EDUCATION TEACHERS ABOUT CURRICULUM DEVELOPMENT

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Summary: *The aim of this study is to determine the needs of special education teachers about curriculum development, and to implement the constructivist approach to in-service training programme for special education teachers. Furthermore, this study seeks to evaluate the developed in-service training programme. The descriptive and experimental methods were applied in this study. The sample consists of 84 special education teachers that have completed the needs analyses questionnaires that has provided the basis for the development of the in-service training programme. An experimental design has been used in the second stage of the study. The experimental group of the study consists of 31 special education teachers. The implementation of the in-service training programme has taken 36 hours over a 6 months period. According to the results of the study, special education teachers need a higher level of training for curriculum development. Also, there is a significant difference between the pre-test and post-test scores of the achievement test. Moreover, teachers have declared that the programme is beneficial and also that their knowledge levels about curriculum development have increased.*

Keywords: *Curriculum Development, Constructivism, In-service Training, Special Education Teachers, Experimental.*

Introduction

The success of the educational process is based on the quality of the educational program that is seen as“organized educational cases and mechanism of learning lives directed to training certain students over a certain period of time”. Educational programs are dynamic structures that are composed of objectives, content, educa-

tional cases – learning lives – and assessment. While determining the objectives of a constructivist educational program, it is important that individual centred groups and different cultures are not ignored (Yuksel, 2014, Marlowe ve Page, 1998; Bozkurt, 2014). While constituting the content of a constructivist educational program, objectives should be considered (Demirel, 2012; Ketsman, 2014): It is important that the knowledge and skills are plain, simple and structured so that every student can learn, provide equilibrium between theory and application, take into consideration the social, economic, educational and vital needs and are appropriate to scientific realities (Demirel, 2014; Schober, 1999; Abbott & Ryan, 1999).

Constructivism is an epistemological view of learning rather than teaching. So, constructivist learning applications predict a rich and interactive learning environment which supplies student the required knowledge to solve problems (Gagnon and Collay, 2001). In the learning process, students are expected to produce their own products by searching, doing decisions, collaborating, using high level of thinking skills and using their own creativeness (Demirel, 2005). Thus, constructivists believe that certain activities and enrichments in the environment can enhance the meaning-making process, such as active learning, using kinaesthetic, visual and auditory modalities, creating opportunities for dialogue, fostering creativity and providing rich, safe and engaging environments (Brooks and Brooks, 1999). Constructivist learning is grounded in students' active participation in problem solving and critical thinking (Fer and Cirik, 2007). So, knowledge cannot simply be transferred from teachers to students, it has to be conceived (Von Glasserfeld, 1996). The essence of constructivism is that students actively construct knowledge (Cunningham, 1992). Hence, the core element of this assumption is that learners interpret new information using knowledge that they have already acquired (Wilson, 1996). Learners activate prior knowledge and try to relate new information to the knowledge they already possess (Blumenfeld, 1992). Thus, constructivism can be stated to be a view of learning that considers the learner as a responsible active agent in his/her knowledge acquisition process (Abbott and Ryan, 1999).

A constructivist educational program should give priority to process and performance assessment methods and techniques that effectively provide the ability to know and assess the student better than classical measurement and assessment techniques (Perkins, 1999;Brooks & Brooks, 1993; Kok,2013).

Since education is an applied field, solutions for educational problems should be researched at the source of the problem, in schools or in the education system as a whole. Solutions for problems arising in the education system depend on the development of contemporary education programmes (Dufly&Jonassen, 1992; Yildirim&Şimşek, 2011). An education programme can be defined as a learning experience mechanism that provides the learner with planned activities in and out of the school environment. Programme development can be defined as the dynamic relationship between the targets, content, learning-teaching process and evaluation components of the education programme (Demirel, 2012). Since the quality of ed -

ucation depends on the applied programme to a large extent, programmes should be based on goals that will try to adapt individuals in a constructive and effective manner, and to influence the development of their behaviours (Wilson, 1997).

All individuals vary according to their physical characteristics and learning capabilities (for instance, some individuals have learning difficulties, some learn slowly some learn fast, some are tall some are short). However, the differences between children are generally not too great (Heward, 2000). Therefore, the majority of children are not faced with serious problems in benefiting from general education services under normal conditions.

However, the physical characteristics or learning capabilities of those children designated as children with special needs means that they require the application of individualized education programmes which are different from those in general education (Ataman, 2013). The different standards that will be required of special education can variy form child to child and the difference could be above or below the general standards. In this sense, the term children with special needs is a comprehensive term that includes children who display learning or behavioural problems, children who have physical or emotional disabilities as well as gifted children and children who have special talents (Eripek, 2003; Heward, 2000).

It is stated that the basic educational target for individuals with special educational needs should be to acquire the skills that are necessary for these children to be able to live independently or to prepare these individuals for social life (Ciftci & Sucuoglu, 2003; Plaza, 2013).

An education programme is required for individuals with special education need to acquire the necessary skills (MEGEP, 2007). The learning and teaching process should be applied effectively for the programme to be implemented in a manner relevant to its goals. Therefore, the following points should be considered:

- Performance level, characteristics and learning styles of the individual should be considered.
- Use of time should be planned in an accurate way in order to reach the determined target at the end of the time allocated for supportive education.
- Appropriate strategy, method, equipment, tools and materials should be selected in the learning and teaching process.
- The activities applied in the programme should be prepared and applied in a gradual manner such as from concrete to abstract, from easy to difficult.
- The language and applied activites in the study should be appropriate for the age and characteristics of the individual (Ataman,2013).
- Appropriate environments should be prepared for individuals to be able to make effective communications and use communication strategies in daily life and their activities should be diversified (Supportive Education Programme for the Mentally Retarded, 2008). Teachers who take an active role in learning and teaching should have a comprehensive understanding of this issue (Ashton, Buhr & Crocker, 1984; Ashton, Webb & Doda, 1983; Gibson

- & Dembo, 1984; Guskey, 1988; Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998).

Teachers who work in special education centers and classes are selected to work in these institutions and appropriate tasks. Teachers who work in these centers and schools sometimes participate in in-service training voluntarily, however, the real requirements of these teachers is related to programme development. Since the teachers who graduated from special education departments and have not taken any course about curriculum development in education are responsible for the development of their own educational programme to teach the children, and also these programmes are controlled by neither the managers nor the control commission. Thus, it is crucial to give in-service training to these teachers about curriculum development.

Furthermore, when the literature is reviewed, there is no study about the determination special education teachers' training needs about curriculum development. Also, there has also been no developed and evaluated in-service training programme for the special education teachers about curriculum development. The main problem to study this topic is that there is no available educational programme for special education centers developed by the Ministry of Education in North Cyprus.

The aim of this study is to determine the training needs of special education teachers regarding curriculum development and to implement the constructivism based in-service training programme which has been developed according to their needs. Also, the evaluation of the applied in-service training programme is among the aims of this study. More specifically the study seeks to answer the following questions:

1. What are the training needs of special education teachers regarding curriculum development?
2. Is there any significant difference between the pre-test and post-test mean scores of special education teachers related to the applied in-service training programme?
3. What are the special teachers' opinions regarding the effectiveness of the implemented in-service training program?

Method

In this study, a mixed method design that descriptive and experimental methods were used together was applied to collect the data for the study. Mixed methods research is defined as 'integrating quantitative and qualitative data collection and analysis in a single study or a program of inquiry (Creswell, Fetters & Ivankova, 2004).

Table 1. Research Design (Single Group Pre-Test, Post-Test Model)

Pre-Test		Post-Test	
Experimenal Group	T1	Implementation of the Programme	T2

In a single-group pre-test and post-test model, independent variables are applied to a randomly selected group.

Participants

The study group for this study consists of 84 special education teachers serving in Special Education Centers, and resource rooms under supervision of the North Cyprus Ministry of Education. All of the special education teachers are surveyed to obtain the data which collected by the needs analyses questionnaire which will also provide the basis for the development of the in-service training programme.

An experimental design is employed in the second stage of the study. The experimental group of the study consists of 31 special education teachers serving in Special Education Centers, and resource rooms under supervision of the North Cyprus Ministry of Education. The implementation of the in-service training programme has taken 36 hours over a six month period.

Instrument

A needs analysis survey, achievement test and interview form are used as data collection tools.

The needs analysis survey consists of 2 parts. The first part covers demographic features and the second part includes 56 items regarding curriculum development. The survey, which consists of 56 items has five main sections and they are given below;

1. Part “Recognition of individuals and planning” 7 items,
2. Part “Aims and learning outcomes” 8 items,
3. Part “Content” 8 items,
4. Part: “Teaching and Learning Methods” 25 items,
5. Part: “Assessment” 8 items.

In the survey, 5 point Likert-scale format has been used. The survey items are scores as; “Need a lot” (5), “Need more” (4), “Needs are moderate” (3), “Need less” (2), “No need” (1).

The survey was preliminarily applied to 107 special education teachers to assess the reliability of the survey. As a result of the preliminary application, the Cronbach alpha value was calculated as 0.90. According to this result, it can be

deduced that the survey has a reliable structure and can be effectively used as a data collection tool.

Achievement Test

This test is used to determine the effectiveness of the developed in-service training programme. The test has been applied to the experimental group twice. The first one is applied at the beginning of the course, and then again after the last course.

During the developing stage, the achievement test consisted of 50 multiple choice questions. For each aim and learning outcomes of the teacher training programme 2 questions are formed, and the achievement test has been presented to 21 experts to be examined in terms of whether the test has measured the objectives or not, and whether the test is appropriate or not. According to the feedback from the experts, appropriate changes have been made to the achievement test.

The achievement test has been applied to 140 teachers in order to analyse of the validity and reliability of the test. The reliability of the test has been calculated as KR-20 0, 83. And this finding shows the reliability of the test. Furthermore, 15 questions scoring under 0.30 in item difficulties index test have been omitted from the achievement test after the analysis of the item difficulties and item discrimination index. It is decided to have at least one question to measure each objective in the achievement test. As a result, the achievement test consists of 35 questions which the item difficulties index differs between .35 and .61, and the item discrimination index differs between .32 and .65.

Interview Form

Special education teachers who attend the in-service training programme have been interviewed regarding the efficiency of the programme at the end of the course. A semi-structured interview form has been developed and presented to seven experts. Three individual questions were asked and recorded during interviews, and each record was transcribed for analysis.

Data Analysis

The needs analysis survey, the achievement test and the interview form are used as data collection tools. Content analyses, frequency, percentage, mean, standard deviation and minimum and maximum values are conducted to analyse the data obtained from the needs analysis survey.

Moreover, a Paired Samples T-test analysis is carried out to compare pre-test and post-test scores of the achievement test applied to special education teachers. The SPSS 20.0 Windows Packet Programme is used to analyse the quantitative data. In addition, content analysis is conducted to analyse the teachers' opinions

about the efficacy of the developed in-service training programme.

Development of the constructivism based in-service training programme and its implementation

A System Approach Model has been used to develop the in-service training programme. In this model, analysis, design, development, implementation and evaluation steps are followed while developing the programme. The in-service training programme took 6 weeks and 36 hours.

Findings

The data obtained from the special education teachers regarding their training needs related to curriculum development within the dimensions of recognition of individual and planning, learning outcomes/objectives, content, teaching and learning methods and assessment is provided in Table 2.

Table 2. Opinions of Teachers towards Recognition of individual and planning, Learning outcomes/objectives, Content, Teaching and learning methods and Assessment

Dimensions	N	M	S
Recognition of individual and planning	84	3.06	.851
Learning outcomes/objectives	84	3.80	.653
Content	84	3.68	.600
Teaching and learning methods	84	3.89	.574
Assessment	84	3.94	.575
General Score	84	3.46	.636

As can be seen in Table 2, the mean and standard deviation scores for the opinions of special education teachers about “Recognition of individual and planning” are (M=3.06, S=.851). This result shows that special education teachers need training on the “Recognition of individuals and planning” at a medium level. With regard to individual recognition and planning, special education teachers stated thatwhile high level training is required in the item “preparing interdisciplinary curriculum” (M=3.14, S=.933), minimum level training is required in the item “determine students interest”(M=2.79 S=.117).

The mean and standard deviation scores for the opinions of special education teachers about "Learning outcomes/objectives" are (M=3.80), S=.653). It can be noted that special education teachers need training about "Learning outcomes/objectives" at a higher level. In this dimension, it is stated by teachers that high level training is required in the item "determine objectives supporting each other" (M=3.80 S=.702), while minimum level training is required in the item "considering mental development of the mentally disabled students while defining objectives." (M=3.72 S=.717). However, the mean and standard deviation score shows that they need high level training in the "learning outcomes/objectives" dimension with all its related items.

The mean and standard deviation scores for the opinions of special education teachers about "Content" are (M=3.68), S=.600).This score shows that special education teachers need training about "content" at a higher level.

Teachers stated that high level training is required in the item "designing the content from simple to complex" (M=3.96 S=.884), while minimum level training is required in the item "selecting content consistent with the objectives" (M=3.65 S=.768). However, the mean and standard deviation score shows that they need high level training in the "content" dimension with its all items as is also in the "learning outcomes/objectives" dimension with all its items.

The mean and standard deviation scores for the opinions of special education teachers about "Teaching and learning methods" are (M=3.89), S=.574). This score shows that special education teachers need training about "Teaching and learning methods" at a higher level.

The survey data shows that teachers require high level training in the item "six thinking hats" (M=4.16 S=.533), while minimum level training is required in the item "communicate verbally and physically" (M=3.76 S=.687). However, the mean and standard deviation score shows that they need high level training in the "Teaching and learning methods" dimension with its all items as is also in the "learning outcomes/objectives" dimension with its all items, and the "content" dimension with its all related items.

In the "Assessment" dimension, mean and standard deviation scores for the opinions of special education teachers are (M=3.95), S=.575). This score shows that special education teachers need training about "Assessment" at a higher level.

Teachers stated that high level training is required in the item "use self-assessment in studies" (M=3.98 S=.693), while minimum level training is required in the item "preparing measurement tools considering students' developmental characteristics" (M=3.79 S=.724). However, the mean and standard deviation score shows that they need high level training in the "Assessment" dimension with its all items.

The mean and standard deviation general score of special education teachers regarding training needs about the elements of curriculum development are (M=3.46), S=.636). These scores show that special education teachers need high level education about curriculum development.

Comparison of pre-test and post-test scores of Special Education Teachers

Paired Samples T-test analysis is conducted to compare pre-test and post-test scores of achievement test applied to special education teachers.

*Table 3. Comparison of pre-test and post-test scores of Special Education Teacher*s

	N	M	S	t	P
Pre-test	31	54,28	15,386	12,754	.000
Post-test	31	91,70	3,858		

When comparing pre-test and post-test scores of special education teachers the mean and standard deviation scores for pre-test are (M=54.28, S=.15,386) while the mean and standard deviation scores for post-test are (M=91.70, S=3,858). This demonstrates that there is a significant difference between the pre-test and post-test scores of the achievement test. (t=12,754, P<0.05). These results show that the developed and implemented in-service training programme has impacted the success and knowledge levels of special education teachers about curriculum development in a positive way.

Special teachers' opinions towards the effectiveness of the implemented in-service training program.

The data obtained from the interview form about special teachers' opinions towards the effectiveness of the implemented in-service training program is discussed below.

Opinions of Teachers on the Impact of the Applied In-Service Training Program on their Occupational Life

It is seen that teachers have perceived the absence of an educational program and furthermore they felt that there have to be such a program put in place. They found the opportunity to update information that they have forgotten or they are not entirely sure of; such as learning how to write target software, which is important in the field of special education. Every individual has different levels of need based on the individual differences in special education and finding out which various learning and teaching techniques, methods and activities that they can use appropriately for these individuals is important. In addition, they have learned how to prepare target, content learning and teaching contexts and evaluation dimensions in a more consciously and systematically. In other words, teachers have found the opportunity to improve themselves through the applied in-service training program. It can be

said that the applied in-service training program primarily served to attract teachers' attention to the importance of an education program, determining the targets of a program, how educational content should be constituted and the regulations of education and evaluation contexts. In other words, at the end of this training, the increase in teachers' information and skills regarding planning, practise and evaluation could be correlated to the effectiveness of the applied in-service training program and the program has therefore served its purpose.

According to the explanations of Baki (2000), it is understood that in-service training is necessary but not sufficient for teachers to be able to comprehend and accomplish their duties, roles and responsibilities that gradually evolve in the education system. Individuals who find that they are not satisfactorily prepared to apply the information and skills that they have acquired during their education, do not have sufficient information about the field that they work in or see that the information and skills they acquired during their education change rapidly in the professional life require continuing education when they enter into their professional life (Ozyurek, 1981; Mancuso &Desmara).

Opinions about the Impact of the Applied In-service Training Program on the Education of Individuals with Special Needs

It was observed that teachers improved themselves regarding issues such as which learning and teaching theories would be effective in the education of individuals with special needs. For example, newly learned different teaching method and techniques could be more effective in teaching these individuals. Teachers have gained knowledge on how to plan an instruction based on the age, level, interest, and needs of individuals with special needs and skills that these individuals can use in their daily lives and also they improve themselves in teaching and evaluation according to individual differences.

The applied in-service training programme has made the teachers gained information regarding curriculum development and how and in which situations they can effectively implement this information in the education of the children who need special education. When basic principles are considered, we can say that special education teachers use the same method and strategies as general education teachers. The only difference is the strategies used in applying individual education and teaching programme that enables teachers to regulate the programs according to the students based on targets and objectives (Ataman, 2013).

Teachers' Opinions about Applied In-Service Training Programme

According to the data obtained by the interview, the teachers stated that they have gained all required information that they have forgotten and they are not entirely the sure about the subjects regarding curriculum development. Furthermore, the

courses have been actualized communicatively and interactively with in the frame of respect and love. Moreover, the teachers have had chance to express themselves regarding the difficulties which they have experiences while developing their educational programmes. They have also stated that all of the courses have been presented with different materials supported by visual equipment, cartons and real life objects. In addition to these they have also declared that they had chance to discuss about the implementation of gained information regarding curriculum development in the education of children having special education needs. They have also gained awareness regarding the necessity and requirement of the curriculum.

There is a need for supporting teachers through in-service training programmes in order that they always work harder efficiently and provide develop themselves (Saban, 2000). Through in-service training programmes, teachers can gain information and skills appropriate for the present day necessities and apply new teaching programmes and changes to the education system accurately (Tekin and Ayas, 2002). In addition, school education is not always sufficient for individuals to discover and nurture all their talents. Therefore, many people to develop their hidden talents trough in-service training. Furthermore, in-service training helps teachers to adapt cultural, social and economic changes and developments in the structure of society (Taymaz, 1997).

Conclusions and Discussion

While special education teachers need a moderate level of education in the dimension of individual recognition and planning, they need a high level of education in the dimensions of target and behaviours, content, learning-teaching and evaluation.

There was a significant difference between the pre-test and post-test means of teachers in the experimental group in support of post-test results. Based on this obtained result, the in-service training activity organized for teachers in the experimental group positively impacted the improvement of the success of the teachers in the achievement test.

It can be said that the applied in-service training program for teachers served primarily to attract attention to the importance of the education program, determining the targets of an educational program, how educational content should be constituted and the regulations of education and evaluation contexts. In other words, at the end of this training, the increase in teachers' information and skills regarding planning, practise and evaluation could be correlated to the effectiveness of the applied in-service training program and the program has therefore served its purpose.

It was observed that teachers improved themselves regarding issues such as: which learning teaching theories would be effective in the education of individuals with special needs; newly learned different teaching method and techniques could be more effective in teaching these individuals; how to plan an instruction based

on the age, level, interests, needs of individuals with special. Kontas (2009), also studied the determination the curricular needs of the teachers who work with gifted children in Science and Art Centers assessed the effectiveness of the inservice training program developed and implemented in line with those needs. The data obtained from the interviews revealed that the teachers found the in-service training useful.

Moreover, according to data obtained regarding the efficacy of the developed in-service training programme, teachers have declared that the programme is beneficial and also their knowledge levels about curriculum development have increased.

REFERENCES:

Abbott J. & T. Ryan. (1999). Constructing knowledge, reconstructing schooling. *Educational Leadership*, November, 66-69.

Ashton, P. T., Webb, R. B., & Doda, N. (1983). A study of teachers' sense of effica cy. final report, executive summary. Gainsville, University of Florida.

Ashton, P., Buhr, D. & Crocker, L. (1984). Teachers' sense of efficacy: a self- or norm-referenced construct?. *Florida Journal of Educational Research*, 26(1), 29-41.

Ataman, A. (2013).*Introduction to special education and mentally handicapped,* Ankara: Gunduz Education and Publication.

Baki, A. (2000). Preparing student teachers to use computers in mathematics class rooms through a long-term pre-service course in turkey, *Journal of Information Technology for Teacher Education*, 9, 3, 243-362

Blumenfeld PC (1992). Classroom Learning and Motivation: Clarifying and Expanding Goal Theory. J. Educ. Psychol. 84:272-281.

Bozkurt, T. (2014). thoughts about ımplementation of positive psychology in education and emerging leadership roles of counselors in the process. *Cypriot Journal of Educational Sciences*, 9(3), 194-202

Brooks, J. G. and Brooks, M.G. (1993). *The case for constructivist classrooms.* Virginia, ASCD Alexandria.

Brooks. J. G, & Brooks, M. G. (1999). In Search Of Understanding: The Case for Constructivist Classrooms. (Revised Ed.). Alexandria, VA: Association for Supervision and Curriculum Development.

Ciftci, I., Sucuoglu, B. (2005). *Teaching social skills with cognitive process ap proach*. Kok Publication Ankara

Creswell, J.W., Fetters, M.D., and Ivankova, N.V. (2004). 'Designing a mixed methods study in primary care'. *Annals of Family Medicine* vol. 2,no. (1): pp. 7–12.

Cunningham, D. J. (1992). Beyond Educational Psychology: Steps Toward an Educational Semiotic. Educ. Psychol. Rev. 4:165-194.

Demirel, O. (2005). *Program Development in Education: From Theory to Practice.* (8th ed.). Ankara: Pegem A Publishing house.

Demirel, O. (2012). *Curriculum development in education*. Ankara: PegemA Publication.

Demirel, O. (2014). *Curriculum development in education.* Ankara: PegemA Publication.

Duffy, T. M. and Jonassen, D. H. (1992).*Constructivism and the technology of instruction: A conversation.* New Jersey: Lawrence Erlbaum Associates, Publishers.

Eripek, S. (2003). *Introduction to special education and mentally handicapped*, Ankara: Gunduz Education and Publication.

Fer, S.& Cırık, I. (2007). *Constructivist Learning: From Theory To Practice.* İstanbul: Morpa Publishing house.

Gagnon, G. W & Collay, M. (2001). *Designing for Learning: Six Elements ın Constructivist Classrooms.* Thousand Oaks, California: Corwin Press.

Gibson, S. & Dembo, M. H. (1984). Teacher efficacy: A construct validation. *Journal of Educational Psychology,* 76 (4), 569-582.

Guskey, T. R. (1988). Teacher efficacy, self-concept, and attitudes toward the implementation of instructional innovation. *Teaching and Teacher Education*, 4, 63–69.

Heward, W.L. (2000). *Exceptional children: An introduction to special education.* Upper Saddle River, NJ: Merrill.

Ketsman, O. (2014). A mixed methods study of foreign language teachers imple menting technology-enhanced multimedia instruction. *World Journal on Educational Technology,* 6(2), 158-180.

Kontas, H. (2009). The effectiveness of the in-service training program developed on the basis of the needs of the teachers of science and art centers in the area of curriculum development. Unpublished PHD Thesis, Hacettepe Uni versity, Ankara.

Kok, I. (2013). Explicit strategy training and english language proficiency, *Global Journal of Foreign Language Teaching.* (2), 33-38.

Mancuso, M. & Desmara, S. (2014). Transforming the first year curriculum. *Global Journal of Guidance and Counselling.* 4(1), 13-18.

Marlowe, B. and Page, M. L. (1999) *Creating and sustaining the constructivist classroom.* USA: Corwin Press.

MEGEP. (2007). Development of child; plan in special education. Ankara: MEGEP.

Ozyurek, L. (1981). Efficacy of in-service training programme towards teachers. Ankara: *Ankara University Faculty of Education Publication.* No: 102.

Perkins, D. N.(1999). *The many faces of constructivism. Educational Leadership.* November, 6-11.

Plaza, S., M. (2013). Advising, requesting and performing in the EU thematic web site for fisheries: Teaching speech acts to engineering students of L2. *Con temporary Educational Researches Journal.* 3(1), 21-33.

Saban, A. (2000). New trends in in-service training. *National Education Journal.* 145, 25-30.

Schober, O. (1999). *Body language,* (Translate: Sueda Ozbent). Istanbul: Arion Publication.

Tekin, S. and Ayas, A. (2002). *Professional development of chemical teachers and opinions about in service training.* V. National Science and Mathematics Education Congress., September, ODTU, Ankara, 1334-1339.

Tschannen-Moran, M., and Woolfolk-Hoy, A. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education*. 17, 783–805.

Von Glasserfeld, E. (1996). *Radical Constructivism: A way of knowing and learning.* London: The Falmer Press.

Wilson G. B. (1996). What is a constructivist learning environment? In: Wilson GB (Ed.). Constructing learning environments: *Case studies in instructional design.* Englewood Cliffs, New Jersey: Educational Technology Publications.

Wilson, B. G. (1997). *Reflections on constructivism and instructional design.* Den ver, Englewood Cliffs NJ: Educational Technology Publications.

Yildirim, A. & Simsek, H. (2003). *Qulaitative research methods in social science.* Ankara: Seckin Publication.

Yuksel, I. (2014). Investigating the impact of classroom management course on self-efficacy levels: An experimental study on pre-service teachers. *Educa tion and Science,* 39(111), 259-269.

IZOBRAZBA EDUKACIJSKIH REHABILITATORA O RAZVOJU KURIKULUMA

Deniz Ozcan i Huseyin Uzunboylu

Sažetak: *Cilj istraživanja je utvrditi potrebe edukacijskih rehabilitatora iz područja razvoja kurikuluma i implementirati konstruktivistički pristup programima izobrazbe edukacijskih rehabilitatora. Ovo istraživanje pokušalo je ocijeniti uspješnost razvijenog programa izobrazbe za edukacijske rehabilitatore. Deskriptivna i eksperimentalna metoda korištene su tijekom istraživanja. Uzorak čine 84 edukacijska rehabilitatora koji su popunili upitnik procjene potreba, koji je bio osnova za izradu programa izobrazbe. Eksperimentalan pristup koristio se u drugom dijelu istraživanja Eksperimentalnu grupu ispitanika činila su 31 edukacijska rehabilitatora. Implementacija programa izobrazbe trajala je 36 sati tijekom perioda od 6 mjeseci. Rezultati istraživanja ukazuju na potrebu za višom razinom izobrazbe iz područja razvoja kurikuluma. Utvrđena je i značajna razlika u pre-test i post-test rezultatima testa uspjeha. Edukacijski rehabilitatori izjavili su da im je program koristan i da je se njihovo znanje o razvoju kurikuluma poboljšalo.*

Ključne riječi: *razvoj kurikuluma, konstruktivizam, izobrazba, edukacijski rehabilitatori, eksperiment*