

Determination of educational needs and self-efficacy perceptions of special education teachers

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Abstract

The purpose of this study is to analyse the need for curriculum development of special education teachers who work at special education centres and schools with resource rooms with regard to different variables and determine their perceptions of self-efficacy. In this study, a general survey model was employed that allows a general opinion about the universe. The population of the study consists of a total of 84 special education teachers who work at special education centres and schools with resource rooms that function under the Primary and Secondary Education Office of the TRNC Ministry of National Education. 'Needs Analysis Survey' and 'Teacher's Self-Efficacy Scale' are employed to collect data. The results reveal that teachers urgently need an education curriculum to be developed. Moreover, teachers' perception of efficacy is at an intermediate level.

Keywords: Curriculum development, needs analysis, self-efficacy perceptions.

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1. Introduction

As expressed in the statement ‘there is no individual to be given up in education’, one of the most significant needs of a country for development, reaching the state of modern civilisation and for its perpetual existence is an educational policy that is structured without discriminating any of its citizens. This educational policy should undoubtedly be organised for the right for education for our disabled citizens, who are in need of more intensive training, compared to their normal peers, in order to maintain their lives and take their positions as producers in the country’s economy.

‘Curriculum development is, in its broader sense, the process of designing, implementing, evaluating and the reorganization of the curriculum in line with the data obtained from evaluation’ (Yuksel, 2014). In the preparation of a curriculum design with a systematic approach, decision should be made at two different levels. In the first stage, the decision-making process is based on the needs of the society, the subject field and the basic features of the students and their needs and expectations. The decisions made at this stage are mostly determined by the social, political, economical preferences and plans of the society. The decisions made in the second stage are rather specific and technical. In this phase the elements that form the curriculum, objectives, content, learning–teaching processes and evaluation, are organised (Ozcelik, 2014).

Since education is an applied field of science, it is necessary to seek solutions for the education problems at the source of the problem, at school or at the entire education system. The solution of the problem in the education system depends on the development of contemporary curricula. The curriculum can be defined as the mechanism of learning experiences provided to the learner through planned activities in and out of the school. Curriculum development is the entirety of the dynamic relations between the objectives, content learning–teaching processes and evaluation dimensions of the curriculum (Demirel, 2012). In this process, since the answers are sought for various problems and because it cannot be expected from anyone to answer all the questions alone, it is important that the curriculum development efforts are carried out through a commission (Demirel, 2010).

Similar to the educational objectives set out for individuals who are not disabled, the main objective of education for disabled individuals is stated as, to train these individuals for social life or at least acquire them with necessary skills that would enable them to live by being dependent on others to a lesser extent (Ciftci & Sucuoglu, 2005).

A well-designed curriculum is one that takes the students’ differences into account and reflects these in the objectives. Viewed in this regard, it should be emphasised that it is important that the needs are analysed and implemented in the curriculum. The knowledge of child development is required in the processes of preparation, planning and implementation and evaluation. Knowing child development is knowing the child. It is essential that the curriculum originates from the child. The strategies preferred for the learning of the child are also important. Moreover, the suitability of these strategies for the child is even more important.

It should be such that the children progress at their own pace with their own learning needs. Besides a well-planned curriculum, the teacher’s perception of self-efficacy is also important. While the influence of the self-efficacy perception is effective on the motive, undoubtedly its effects on the teaching activities are also very strong. Teachers who believe that they can control or positively affect student success and motivation are teachers with high self-efficacy beliefs (Tschannen-Moran, Woolfolk & Hoy, 1998). Ashton, Buhr and Crocker (1984) indicate that there is no relation between student success and other teacher qualities to this extent; Raudenbush, Rowen and Cheong (1992) state that the main tool between the instruction activities and his/her knowledge accumulation is self-efficacy perception; and Pajares (1992) specifies that the strongest of teacher attitudes is teaching/teacher efficacy.

In the northern part of Cyprus, teachers who work in special education institutions and resource rooms are selected for these institutions and thus continue their professional practices. Although the

teachers who work at these centres and schools participate in in-service trainings, it can be stated that the real need of these teachers is curriculum development. The task to develop the curriculum to be implemented at these centres is left to the teachers working at these institutions, and there is freedom in the practices of the implementation. It can be stated that the teachers particularly need designing and implementation of an individualised curriculum. The purpose of the current research is based on this.

The purpose of this study is to analyse the needs of curriculum development for special education teachers who work at special education centres and schools with resource rooms with regard to different variables and determine their perceptions of self-efficacy.

1.1. Sub-objectives

- 1) What are the educational needs of special education teachers for curriculum development?
- 2) Do the educational needs of special education teachers for curriculum development differ with regard to their
 - a. gender,
 - b. educational background,
 - c. professional seniority,
 - d. field of practice,
 - e. course background – whether they have taken the curriculum development course,
 - f. participation in in-service training?
- 3) What are the self-efficacy perceptions of special education teachers in general?
- 4) What are the teacher views to implement effective in-service training?

2. Methodology

In this section, the research design, universe of the study, data collection process and application, data analysis and discussion and the studies conducted related to each sub-topic are explained in detail.

3. Research design

In this study, the general survey model was employed that allows a general opinion about the universe (Cresswell, 2002; Johnson & Onwuegbuzie, 2004; Johnson, Onwuegbuzie and Turner, 2007).

4. Research universe

The population of the study consists of a total of 84 special education teachers who work at special education centres and schools with resource rooms that function under the Primary and Secondary Education Office of the TRNC Ministry of National Education.

5. Data collection tools

In order to determine the needs for curriculum design of teachers who work at special education centres and schools with resource rooms functioning under the TRNC Ministry of National Education 'Needs Analysis Survey' developed by the researcher and in order to determine these teachers' self-efficacy perceptions 'Teacher's Self-Efficacy Scale', of which translation, validity and reliability studies were conducted by Diken in 2004, are employed.

6. Data analysis

In the analysis of the needs analysis survey completed by the teachers, descriptive statistics are used; percentages and frequencies, arithmetic mean, standard deviation, and minimum and maximum values are calculated. Then, in order to reveal the relationship between the responses given to the survey, independent variables t-test and one way analysis of variance (ANOVA) are conducted. In order to determine the perceptions of self-efficacy frequency, percentage, arithmetic mean, standard deviation, and minimum and maximum values are calculated.

7. Findings and discussion

7.1. Findings and discussion regarding the first sub-objective

The first sub-objective of the study was stated as ‘What are the educational needs of special education teachers for curriculum development?’ Below the views of teachers responding to the survey regarding their needs for the dimensions of familiarisation with the individual and planning, objectives and behaviours, creating content, learning–teaching processes and evaluation are analysed.

As seen in Table 1, the arithmetic mean and standard deviation scores of special education teachers regarding the dimension of familiarisation with the individual and planning are calculated as ($\bar{X} = 3.06$, $S = 0.851$). This result reveals that the teachers’ need of education for the dimension of familiarisation with the individual and planning is moderate. Regarding the dimension of familiarisation with the individual and planning, while the teachers stated that they need education most ($\bar{X} = 3.14$, $S = 0.933$) for the item of ‘developing inter-disciplinary curricula’, they stated that they need education least ($\bar{X} = 2.79$, $S = 0.117$) for the item of ‘determining students’ interests’.

Table 1. The views of teachers regarding their needs for the dimensions of familiarisation with the individual and planning, objectives and behaviours, learning–teaching processes, creating content and evaluation

Dimension	N	\bar{X}	S
Familiarisation with the individual and planning	84	3.06	0.851
Objectives and behaviours	84	3.80	0.653
Content	84	3.68	0.600
Learning–teaching processes	84	3.89	0.574
Evaluation	84	3.94	0.575
Total	84	3.46	0.636

Regarding the dimension of objectives and behaviours, the arithmetic mean and standard deviation scores are calculated as ($\bar{X} = 3.80$, $S = 0.653$). This result reveals that the teachers’ need for education for the dimension of objectives and behaviours is high. For this dimension, while the teachers stated that they need education most ($\bar{X} = 3.80$, $S = 0.702$) for the item of ‘setting objectives that support each other’, they stated that they need education least ($\bar{X} = 3.72$, $S = 0.717$) for the item of ‘being able to consider students’ levels of mental development’.

Regarding the dimension of content, the arithmetic mean and standard deviation scores are calculated as ($\bar{X} = 3.68$, $S = 0.600$). This result reveals that the teachers’ need of education for the dimension of content is high. For this dimension, while the teachers stated that they need education most ($\bar{X} = 3.96$, $S = 0.884$) for the item of ‘organising content from simple to complex’, they stated

that they need education least ($\bar{X} = 3.65, S = 0.768$) for the item of ‘choosing content consistent with the objectives’.

Regarding the dimension of learning–teaching processes, the arithmetic mean and standard deviation scores are calculated as ($\bar{X} = 3.89, S = 0.574$). This result reveals that the teachers’ need of education for the dimension of learning–teaching processes is high. For this dimension, while the teachers stated that they need education most ($\bar{X} = 4.16, S = 0.533$) for the item of ‘six thinking hats’, they stated that they need education least ($\bar{X} = 3.76, S = 0.687$) for the item of ‘being able to maintain verbal and physical communication’.

Regarding the dimension of evaluation, the arithmetic mean and standard deviation scores are calculated as ($\bar{X} = 3.95, S = 0.575$). This result reveals that the teachers’ need of education for the dimension of evaluation is high. For this dimension, while the teachers stated that they need education most ($\bar{X} = 3.98, S = 0.693$) for the item of ‘using self-evaluation in activities’, they stated that they need education least ($\bar{X} = 3.79, S = 0.724$) for the item of ‘preparing evaluation tools considering the developmental needs of students’.

The arithmetic mean and standard deviation scores regarding general educational needs for curriculum development are calculated as ($\bar{X} = 3.45, S = 0.636$). This result reveals that the teachers need education for curriculum development highly.

7.2. Findings and discussion regarding the second sub-objective

The second sub-objective of the study was stated as ‘do the educational needs of special education teachers for curriculum development differ with regard to their gender, educational background, professional seniority, field of practice, course background – whether they have taken the curriculum development course – and their in-service training background?’.

8. Comparison of special education teachers’ views regarding dimensions of familiarisation with the individual and planning, setting objectives, creating content and evaluation with regard to their gender

In order to determine whether there is a significant difference in special education teachers’ views of dimensions of familiarisation with the individual and planning instruction, setting objectives, creating content and evaluation between their gender, independent samples t-test analysis is conducted.

In Table 2, the results of comparison of teachers’ views of dimensions of familiarisation with the individual and planning instruction, setting objectives, creating content and evaluation with regard to their gender are presented.

Table 2. Comparison results of special education teachers’ views regarding dimensions of familiarisation with the individual and planning, setting objectives, creating content and evaluation with regard to their gender

	Gender	N	\bar{X}	S	SD	T	P	Explanation
Familiarisation with the individual and planning	Female	49	3.03	0.780	82	-0.366	0.715	No significant difference
	Male	35	3.10	0.953				
Setting objectives	Female	49	3.71	0.684	82	-1.595	0.115	$P > 0.05$

	Male	35	3.94	0.591				No significant difference
Creating content	Female	49	3.63	0.601	82	-0.937	0.352	$P > 0.05$
	Male	35	3.75	0.598				No significant difference
Learning–teaching processes	Female	49	3.85	0.549	82	-0.785	0.435	$P > 0.05$
	Male	35	3.95	0.610				No significant difference
Evaluation	Female	49	3.96	0.581	82	0.430	0.668	$P > 0.05$
	Male	35	3.91	0.578				No significant difference
Total	Female	49	3.43	0.642	82	-0.332	0.741	$P > 0.05$
	Male	35	3.48	0.635				No significant difference

As seen in Table 2, the arithmetic mean and standard deviation scores of female teachers for the dimension of familiarisation with the individual and planning are calculated as ($\bar{X} = 3.03, S = 0.780$), while the arithmetic mean and standard deviation scores of male teachers for the dimension of familiarisation with the individual and planning are calculated as ($\bar{X} = 3.10, S = 0.953$). The findings obtained reveal that there is no significant difference in the scores for the dimension of familiarisation with the individual and planning ($t = -0.366, P > 0.05$).

Also, there is no indication of a significant difference ($t = -1.595, P > 0.05$) between the arithmetic mean and standard deviation scores of female teachers ($\bar{X} = 3.71, S = 0.684$) and male teachers ($\bar{X} = 3.94, S = 0.591$) for the dimension of setting objectives.

When the dimension of creating content is analysed, there is no indication of a significant difference ($t = -0.937, P > 0.05$) between the arithmetic mean and standard deviation scores of female teachers ($\bar{X} = 3.63, S = 0.601$) and male teachers ($\bar{X} = 3.75, S = 0.598$).

Again, when the dimension of learning–teaching processes is analysed, there is no indication of a significant difference ($t = -0.785, P > 0.05$) between the arithmetic mean and standard deviation scores of female teachers ($\bar{X} = 3.85, S = 0.549$) and the arithmetic mean and standard deviation scores of male teachers ($\bar{X} = 3.95, S = 0.610$).

When the dimension of evaluation is analysed, there is no indication of a significant difference ($t = 0.430, P > 0.05$) between the arithmetic mean and standard deviation scores of female teachers ($\bar{X} = 3.96, S = 0.581$) and the arithmetic mean and standard deviation scores of male teachers ($\bar{X} = 3.91, S = 0.578$).

The general arithmetic mean and standard deviation scores of curriculum development for the dimensions of familiarisation with the individual and planning, setting objectives, creating content, learning–teaching processes and evaluation are calculated as ($\bar{X} = 3.43, S = 0.642$) for female teachers, while they are calculated as ($\bar{X} = 3.48, S = 0.635$) for male teachers. In other words, there is no significant difference ($t = -0.332, P > 0.05$) between female and male teachers. These results reveal that the gender of teachers is not an important aspect in the dimensions of familiarisation with the

individual and planning, setting objectives, creating content, learning–teaching processes and evaluation dimensions.

9. Comparison of special education teachers’ views regarding dimensions of familiarisation with the individual and planning, setting objectives, creating content and evaluation with regard to their educational background

In order to determine whether there is a significant difference in special education teachers’ views of dimensions of familiarisation with the individual and planning instruction, setting objectives, creating content and evaluation with regard to their educational background, independent samples t-test analysis is conducted.

In Table 3, the results of comparison of teachers’ views of dimensions of familiarisation with the individual and planning instruction, setting objectives, creating content and evaluation with regard to their educational background are presented.

Table 3. Comparison results of special education teachers’ views regarding dimensions of familiarisation with the individual and planning, setting objectives, creating content and evaluation with regard to their educational background

	Educational background	N	\bar{X}	S	SD	T	P	Explanation
Familiarisation with the individual and planning	BA	59	3.13	0.747	82	1.262	0.211	$P > 0.05$
	On-going	25	2.88	1.053				No significant difference
	MA							
Setting objectives	BA	59	3.75	0.575	82	-1.194	0.236	$P > 0.05$
	On-going	25	3.94	0.807				No significant difference
	MA							
Creating content	BA	59	3.62	0.553	82	-1.354	0.180	$P > 0.05$
	On-going	25	3.82	0.690				No significant difference
	MA							
Learning–teaching processes	BA	59	3.82	0.539	82	-1.912	0.059	$P > 0.05$
	On-going	25	4.08	0.623				No significant difference
	MA							
Evaluation	BA	59	4.18	0.610	82	-2.496	0.015	$P < 0.05$
	On-going	35	3.48	0.353				Significant difference
	MA							
Total	BA	59	3.44	0.606	82	-0.202	0.840	$P > 0.05$
	On-going	25	3.48	0.714				No significant difference
	MA							

As seen in Table 3, the arithmetic mean and standard deviation scores of teachers with bachelor degrees for the dimension of familiarisation with the individual and planning are calculated as ($\bar{X} = 3.13$, $S = 0.747$), while the arithmetic mean and standard deviation scores of teachers who are continuing their master’s degrees for the dimension of familiarisation with the individual and planning are calculated as ($\bar{X} = 2.88$, $S = 0.053$). The findings obtained reveal that there is no significant difference in the scores for the dimension of familiarisation with the individual and planning ($t = 1.262$, $P > 0.05$).

Also, there is no indication of a significant difference ($t = -1.194$, $P > 0.05$) between the arithmetic mean and standard deviation scores of teachers with bachelor degrees ($\bar{X} = 3.75$, $S = 0.575$) and

teachers who are continuing their master’s degrees ($\bar{X} = 3.94, S = 0.807$) for the dimension of setting objectives.

When the dimension of creating content is analysed, there is no indication of a significant difference ($t = -1.354, P > 0.05$) between the arithmetic mean and standard deviation scores of teachers with bachelor degrees ($\bar{X} = 3.62, S = 0.553$) and teachers who are continuing their master’s degrees ($\bar{X} = 3.82, S = 0.690$).

Again when the dimension of learning–teaching processes is analysed, there is no indication of a significant difference ($t = -1.912, P > 0.05$) between the arithmetic mean and standard deviation scores of teachers with bachelor degrees ($\bar{X} = 3.82, S = 0.539$) and the arithmetic mean and standard deviation scores of teachers who are continuing their master’s degrees ($\bar{X} = 4.08, S = 0.623$).

When the dimension of evaluation is analysed, a significant difference ($t = -2.496, P < 0.05$) has been found between the arithmetic mean and standard deviation scores of teachers with bachelor degrees ($\bar{X} = 4.18, S = 0.610$) and the arithmetic mean and standard deviation scores of teachers who are continuing their master’s degrees ($\bar{X} = 3.84, S = 0.535$). This finding reveals that teachers who are continuing their master’s degrees hold more positive views on their needs for education regarding curriculum development than teachers with bachelor degrees for the dimension of evaluation.

The general arithmetic mean and standard deviation scores of curriculum development for the dimensions of familiarisation with the individual and planning, setting objectives, creating content, learning–teaching processes and evaluation are calculated as ($\bar{X} = 3.44, S = 0.606$) for teachers with bachelor degrees, while they are calculated as ($\bar{X} = 3.48, S = 0.714$) for teachers who continue their master’s degree education. In other words, there is no significant difference ($t = -0.202, P > 0.05$) between these two groups of teachers. These results reveal that the educational background of teachers is not an important aspect in the dimensions of familiarisation with the individual and planning, setting objectives, creating content, learning–teaching processes and evaluation dimensions.

10. Comparison of special education teachers’ views regarding dimensions of familiarisation with the individual and planning, setting objectives, creating content and evaluation with regard to their professional seniority

In order to determine whether there is a significant difference in special education teachers’ views of dimensions of familiarisation with the individual and planning instruction, setting objectives, creating content and evaluation with regard to their professional seniority, one way analysis of variance is conducted. Post hoc LSD test is conducted afterwards to determine which groups differed.

As seen in Table 4, there is a significant difference ($F(2.81) = 4.900, p < 0.05$) between teachers’ views on the dimension of familiarisation with the individual and planning. In order to determine which groups differed, LSD test was conducted.

Table 4. ANOVA results of the scores of special education teachers’ views regarding dimensions of familiarisation with the individual and planning, setting objectives, creating content and evaluation with regard to their professional seniority

Dimension	Source of variance	Sum of squares	SD	Mean of squares	F	P	Explanation
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Familiarisation with the individual and planning	Between	6.498	2	0.249	4.900	0.010	$P < 0.05$
	within	53.704	81	0.663			Significant difference
	total	60.202	83				
Setting objectives	Between	0.937	2	0.469	1.100	0.338	$P > 0.05$ No significant difference
	within	34.515	81	0.426			
	total	35.452	83				
Creating content	Between	0.935	2	0.468	1.308	0.276	$P > 0.05$ No significant difference
	within	28.955	81	0.357			
	total	29.890	83				
Learning–teaching processes	Between	1.845	2	0.922	2.924	0.059	$P > 0.05$ No significant difference
	within	25.545	81	0.315			
	total	27.390	83				
Evaluation	Between	0.868	2	0.434	1.319	0.273	$P > 0.05$ No significant difference
	Within	26.641	81	0.329			
	Total	27.509	83				
General score	Between	1.511	2	0.756	1.907	0.155	$P > 0.05$ No significant difference
	within	32.093	81	0.396			
	total	33.604	83				

With regard to their views on the dimension of familiarisation with the individual and planning, the LSD test conducted reveals a significant difference in favour of teachers with professional seniority of and over 15 years; among groups of teachers with professional seniority of 1–7 years, 8–14 years and 15 years and more. In light of the findings obtained, it may be inferred that as the professional seniority of the teachers increase because of expanding experience in familiarisation with the individual and planning, their educational needs are less.

However, there is no indication of a significant difference in teachers’ views on the dimensions of setting objectives ($F(2,81) = 1.100, p > 0.05$), creating content ($F(2,81) = 1.308, p > 0.05$), learning–teaching processes ($F(2,81) = 2.924, p > 0.05$), evaluation ($F(2,81) = 1.319, p > 0.05$) and their general views ($F(2,81) = 0.1.907, p > 0.05$) with regard to their professional seniority.

11. Comparison of special education teachers’ views regarding dimensions of familiarisation with the individual and planning, setting objectives, creating content and evaluation with regard to their field of practice

In order to determine whether there is a significant difference in special education teachers’ views of dimensions of familiarisation with the individual and planning instruction, setting objectives, creating content and evaluation with regard to their field of practice, one way analysis of variance is conducted.

As seen in Table 5, there is no indication of a significant difference in teachers’ views on the dimensions of familiarisation with the individual and planning ($F(2,81) = 0.322, p > 0.05$), evaluation ($F(2,81) = 2.162, p > 0.05$) and their general views ($F(2,81) = 1.011, p > 0.05$) with regard to their field of practice.

Table 5. ANOVA results of the scores of special education teachers’ views regarding dimensions of familiarisation with the individual and planning, setting objectives, creating content and evaluation with regard to their field of practice

Dimension	Source of variance	Sum of squares	SD	Mean of squares	F	P	Explanation
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Familiarisation with the individual and planning	Between	0.476	2	0.238	0.322	0.725	$P > 0.05$ No significant difference
	within	59.727	81	0.737			
	total	60.202	83				
Setting objectives	Between	9.394	2	4.697	14.600	0.000	$P < 0.05$ Significant difference
	within	26.059	81	0.322			
	total	35.452	83				
Creating content	Between	8.315	2	4.158	15.609	0.000	$P < 0.05$ Significant difference
	within	21.575	81	0.266			
	total	29.890	83				
Learning–teaching processes	Between	2.428	2	1.214	3.939	0.023	$P < 0.05$ Significant difference
	within	24.962	81	0.308			
	total	27.390	83				
Evaluation	Between	1.394	2	0.697	2.162	0.122	$P > 0.05$ No significant difference
	within	26.115	81	0.322			
	total	27.509	83				
General score	Between	0.818	2	0.409	1.011	0.369	$P > 0.05$ No significant difference
	within	32.786	81	0.405			
	total	33.604	83				

However, as seen in Table 5, there is a significant difference between teachers' views on the dimension of setting objectives ($F(2.81) = 14.600, p < 0.05$), between their views on creating content ($F(2.81) = 15.609, p < 0.05$) and their views on learning–teaching processes ($F(2.81) = 3.939, p < 0.05$) with regard to their field of practice.

In order to determine which groups differed, LSD test was conducted.

According to the results of the LSD test conducted between teachers working with the mentally impaired and teachers working with autistic individuals; there is a significant difference in their views with regard to teachers' field of practice for the dimension of setting objectives in favour of teachers working with the autistic individuals.

Also, according to the teachers' views on creating content with regard to their field of practice, between teachers working with the individuals with Down syndrome and teachers working with the mentally impaired; there is a significant difference in favour of teachers working with the mentally impaired.

In addition, according to the teachers' views on learning–teaching processes with regard to their field of practice, between teachers working with the mentally impaired and teachers working with autistic individuals, there is a significant difference in favour of teachers working with the mentally impaired.

In light of the findings obtained, it may be inferred that the educational needs of teachers for curriculum development is affected by their field of practice.

12. Comparison of special education teachers' views regarding dimensions of familiarisation with the individual and planning instruction, setting objectives, creating content and evaluation with regard to their course background

In order to determine whether there is a significant difference in special education teachers' views of dimensions of familiarisation with the individual and planning instruction, setting objectives, creating content and evaluation with regard to their course history – whether they have taken the undergraduate course of curriculum development – independent samples t-test analysis is conducted.

In Table 6, the results of comparison of teachers’ views of dimensions of familiarisation with the individual and planning instruction, setting objectives, creating content, learning–teaching processes and evaluation based on whether they have taken the undergraduate course of curriculum development or not are presented.

Table 6. Comparison results of special education teachers’ views regarding dimensions of familiarisation with the individual and planning, setting objectives, creating content and evaluation with regard to their course history

	CDC	N	\bar{X}	S	SD	T	P	Explanation
Familiarisation with the individual and planning	Yes	62	2.88	0.821	82	-3.295	0.001	P < 0.05
	No	22	3.54	.815				Significant difference
Setting objectives	Yes	62	3.74	0.693	82	-1.606	0.112	P > 0.05
	No	22	4.00	0.487				No significant difference
Creating content	Yes	62	3.63	0.628	82	-1.220	0.226	P > 0.05
	No	22	3.81	0.501				No significant difference
Learning–teaching processes	Yes	62	3.91	0.513	82	0.548	0.585	P > 0.05
	No	22	3.84	0.730				No significant difference
Evaluation	Yes	62	4.00	0.565	82	1.441	0.153	P > 0.05
	No	22	3.79	0.590				No significant difference
General Score	Yes	62	3.61	0.844	82	-1.339	0.184	P > 0.05
	No	22	3.40	0.542				No significant difference

As seen in Table 6, the arithmetic mean and standard deviation scores of teachers who have taken the undergraduate course of curriculum development for the dimension of familiarisation with the individual and planning are calculated as ($\bar{X} = 2.88, S = 0.281$) while the arithmetic mean and standard deviation scores of teachers who have not taken the undergraduate course of curriculum development for the dimension of familiarisation with the individual and planning are calculated as ($\bar{X} = 3.54, S = 0.815$). The findings obtained reveal that there is a significant difference in the scores for the dimension of familiarisation with the individual and planning ($t = -3.295, P < 0.05$). The findings reveal that teachers who have taken the undergraduate curriculum development course hold more positive views on their needs for education regarding the dimension of familiarisation with the individual and planning than teachers with who have not taken the undergraduate curriculum development course.

Also, there is no indication of a significant difference ($t = -1.606, P > 0.05$) between the arithmetic mean and standard deviation scores of teachers who have taken the undergraduate curriculum development course ($\bar{X} = 3.74, S = 0.693$) and teachers who have not taken the undergraduate curriculum development course ($\bar{X} = 4.00, S = 0.487$) for the dimension of setting objectives.

When the dimension of creating content is analysed, there is no indication of a significant difference ($t = -1.220, P > 0.05$) between the arithmetic mean and standard deviation scores of teachers who have taken the undergraduate curriculum development course ($\bar{X} = 3.63, S = 0.628$)

and teachers who have not taken the undergraduate curriculum development course ($\bar{X} = 3.81, S = 0.501$).

Again when the dimension of learning–teaching processes is analysed, there is no indication of a significant difference ($t = 0.548, P > 0.05$) between the arithmetic mean and standard deviation scores of teachers who have taken the undergraduate curriculum development course ($\bar{X} = 3.91, S = 0.513$) and the arithmetic mean and standard deviation scores of teachers who have not taken the undergraduate curriculum development course ($\bar{X} = 3.84, S = 0.730$).

When the dimension of evaluation is analysed, there is no indication of a significant difference ($t = 1.441, P > 0.05$) between the arithmetic mean and standard deviation scores of teachers who have taken the undergraduate curriculum development course ($\bar{X} = 4.00, S = 0.565$) and the arithmetic mean and standard deviation scores of teachers who have not taken the undergraduate curriculum development course ($\bar{X} = 3.79, S = 0.590$).

The general arithmetic mean and standard deviation scores of curriculum development for the dimensions of familiarisation with the individual and planning, setting objectives, creating content, learning–teaching processes and evaluation are calculated as ($\bar{X} = 3.61, S = 0.842$) for teachers who have taken the undergraduate curriculum development course, while they are calculated as ($\bar{X} = 3.40, S = 0.544$) for teachers who have not taken the undergraduate curriculum development course. In other words, there is no significant difference ($t = 1.339, P > 0.05$) between these two groups of teachers. These results reveal that the course history of teachers – whether they have taken the undergraduate course of curriculum development – is not an important aspect in their general views regarding dimensions of familiarisation with the individual and planning, setting objectives, creating content, learning–teaching processes and evaluation for curriculum development.

13. Comparison of special education teachers’ views regarding dimensions of familiarisation with the individual and planning instruction, setting objectives, creating content and evaluation with regard to their participation to in-service training

In order to determine whether there is a significant difference in special education teachers’ views of dimensions of familiarisation with the individual and planning instruction, setting objectives, creating content and evaluation with regard to their participation to in-service training, independent samples t-test analysis is conducted.

In Table 7, the results of comparison of teachers’ views of dimensions of familiarisation with the individual and planning instruction, setting objectives, creating content, learning–teaching processes and evaluation based on their participation to in-service trainings are presented.

Table 7. Comparison results of special education teachers’ views regarding dimensions of familiarisation with the individual and planning instruction, setting objectives, creating content and evaluation with regard to their participation to in-service training

	IST	N	\bar{X}	S	SD	T	P	Explanation
Familiarisation with the individual and planning	Yes	48	2.85	0.961	82	–2.642	0.010	Significant difference
	No	36	3.33	0.585				
Setting objectives	Yes	48	4.00	0.615	82	0.890	0.376	$P > 0.05$

	No	36	3.74	0.682				No significant difference
Creating content	Yes	48	3.81	0.554	82	1.345	0.182	$P > 0.05$
	No	36	3.63	0.627				No significant difference
Learning–teaching processes	Yes	48	3.91	0.557	82	0.904	0.369	$P > 0.05$
	No	36	3.84	0.597				No significant difference
Evaluation	Yes	48	4.00	0.569	82	1.179	0.242	$P > 0.05$
	No	36	3.79	0.580				No significant difference
General score	Yes	48	3.61	0.643	82	−0.865	0.390	$P > 0.05$
	No	36	3.40	0.632				No significant difference

As seen in Table 7, the arithmetic mean and standard deviation scores of teachers who participate to in-service trainings for the dimension of familiarisation with the individual and planning are calculated as ($\bar{X} = 2.85, S = 0.961$) while the arithmetic mean and standard deviation scores of teachers who do not participate to in-service trainings for the dimension of familiarisation with the individual and planning are calculated as ($\bar{X} = 3.33, S = 0.585$). The findings obtained reveal that there is a significant difference in the scores for the dimension of familiarisation with the individual and planning ($t = -2.642, P < 0.05$). This finding reveals that teachers who participate to in-service trainings hold more positive views on their needs of education regarding the dimension of familiarisation with the individual and planning than teachers with who do not participate to in-service trainings.

Also there is no indication of a significant difference ($t = 0.890, P > 0.05$) between the arithmetic mean and standard deviation scores of teachers who participate to in-service trainings ($\bar{X} = 4.00, S = 0.615$) and teachers with who do not participate to in-service trainings ($\bar{X} = 3.74, S = 0.682$) for the dimension of setting objectives.

When the dimension of creating content is analysed, there is no indication of a significant difference ($t = 1.345, P > 0.05$) between the arithmetic mean and standard deviation scores of teachers who participate to in-service trainings 3.81, $S = 0.554$) and teachers with who do not participate to in-service trainings ($\bar{X} = 3.63, S = 0.627$).

Again when the dimension of learning–teaching processes is analysed there is no indication of a significant difference ($t = 0.904, P > 0.05$) between the arithmetic mean and standard deviation scores of teachers who participate to in-service trainings ($\bar{X} = 3.91, S = 0.557$) and teachers with who do not participate to in-service trainings ($\bar{X} = 3.84, S = 0.597$).

When the dimension of evaluation is analysed there is no indication of a significant difference ($t = 1.179, P > 0.05$) between the arithmetic mean and standard deviation scores of teachers who participate to in-service trainings ($\bar{X} = 4.00, S = 0.569$) and teachers who do not participate to in-service trainings ($\bar{X} = 3.79, S = 0.580$).

The general arithmetic mean and standard deviation scores of curriculum development for the dimensions of familiarisation with the individual and planning, setting objectives, creating content,

learning–teaching processes and evaluation are calculated as ($\bar{X} = 3.61, S = 0.643$) for teachers who participate to in-service trainings, while they are calculated as ($\bar{X} = 3.40, S = 0.632$) for teachers who do not participate to in-service trainings. In other words, there is no significant difference ($t = -0.865, P > 0.05$) between these two groups of teachers. These results reveal that the participation of teachers to in-service trainings is not an important aspect in their general views regarding dimensions of familiarisation with the individual and planning, setting objectives, creating content, learning–teaching processes and evaluation for curriculum development.

13.1. Findings and discussion regarding third sub-objective

The descriptive statistics results of teachers' perceptions of self-efficacy are presented in Table 8.

Table 8. Descriptive statistics results of teachers’ perceptions of self-efficacy

Self-efficacy perceptions	N	Item number	Minimum score	Maximum score	Mean	S
Self-efficacy/individual factors	31	7	1	5	3.29	0.419
General teaching efficacy/external factors	31	9	1	5	3.17	0.697
Total	31	16	1	5	3.22	0.403

As seen in Table 7, while the mean scores of teachers for the dimension of self-efficacy/individual factor is between the limit of ‘intermediate’ efficacy ($\bar{X} = 3.29, S = 0.419$), the mean scores of teachers’ perceptions for the dimension of general teaching efficacy/external factors are also between the limit of ‘intermediate’ efficacy ($\bar{X} = 3.17, S = 0.697$). Teachers’ general perceptions of efficacy is ($\bar{X} = 3.22, S = 0.403$). This finding may be discussed as the teachers’ perception of efficacy is at an intermediate level.

13.2. Findings regarding fourth sub-objective

The fourth sub-problem of the study was stated as ‘what are the teacher views to implement an effective in-service training?’

In light of the responses gained from teachers the most frequently mentioned views are presented in Table 9.

Table 9. Teachers’ views on effective in-service training

Teachers’ views	f
- The training should be delivered by the experts in the subject	82
- The activities should be organised in line with the needs, expectations and requests	79
- Trainings that provide solutions to problems should be delivered	71
- Trainings should manage to cover both theory and practice for the branches	68
- Trainings should be evaluated at the end	46
- Trainings should include practice and active participation	39

Teachers were asked to write their views regarding how an in-service training should be. The notes in which participants completed the blanks in the survey are analysed below.

‘...The teachers should be asked for their opinions from time to time and they should be allowed to reflect the problems they experience and in-service trainings should be organised taking these into consideration...’

‘...I would like in-service trainings to be delivered in a workshop format and oriented towards practice because the information provided does not stick and gets forgotten. Besides I’m willing to learn about the use of smart boards...’

‘...That the trainings are practice oriented as well as theory and organised taking the development around the world and practices and not the conditions of the country...’

‘...It will be much more beneficial to organise trainings that are initially applied with groups of 5-10 people where the theoretical knowledge is brought about through discussion...’

‘... In-service trainings supported by the use of technology that is prepared in accordance with the needs of individuals and can bring solutions to problems will be more effective and beneficial ...’

The majority of the teachers have stated that trainings should be delivered by the experts in the subject. The second most frequently stated opinion is that the trainings may be more effective and efficient if the activities are organised in line with the needs, expectations and requests of the participants.

Among the views of the teachers, the third mostly stated request is that in-service trainings should provide solutions to problems.

The fourth most frequently stated opinion is that the trainings should manage to cover both theory and practice for the branches. Teachers frequently stated that the trainings should be evaluated at the end and they should include practice and active participation.

Teachers’ views on effective in-service training include the following statements:

- Organising trainings periodically
- Support using technology
- Sample activities should be presented
- Work collaboratively with universities
- Should be organised regionally
- Trainings should be organised taking into account world development and practices, not country conditions
- The time and duration of the training should be determined by taking working hours into account
- Those that have successfully completed the application must be given credit or achievement certificate.

It can be said that in-service training, as in most professional fields, has a significant role both in terms of the teaching profession and the teacher’s professional development as well as the positive impact of this development on the achievement of the institution and the student. Therefore, in terms of increasing teacher competences it should be noted that the learning–teaching process is a constantly evolving and open process.

Moreover, an educator who knows how to implement institutional thoughts in practice increases productivity. This reveals the necessity and significance of ISTs (Bagri and Sims). The efficiency of in-service training activities for teachers depends on the realistic determination of behaviours to be taught, the organisation of appropriate learning–teaching processes in order to achieve the desired behaviour changes, the effective management of educational experience and the reliable control of the desired behaviour changes. These require a detailed educational plan. Preparing a detailed education plan is the subject of curriculum development (Tyler, 1993).

14. Suggestions

- 1) In-service trainings can be carried out to meet the training needs of special education teachers in different fields.
- 2) Special education teachers can be encouraged to start their masters and doctoral programmes.
- 3) In-service training can be carried out especially for teachers who are new to the profession, in particular for familiarisation with the individual and planning.
- 4) In-service training activities can be arranged for some branches.
- 5) In-service trainings can be delivered by experts.
- 6) In-service training can be organised, taking into account the expectations and demands of teachers.
- 7) Regular in-service training can be given to increase teachers' self-efficacy perceptions.
- 8) In-service trainings to be organised can focus on implementation as well as theoretical presentation of the topics.
- 9) Observation of classroom practices in the identification of the educational needs of learners and the examination of learning and teaching environments may be more useful in terms of revealing real educational needs.
- 10) In-service training activities for special education teachers' training needs in different fields can be organised.

References

- 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.
- Bagci, N., & Simsek, S. (2000). Milli eğitim personeline yönelik hizmet-içi eğitim faaliyetlerine genel bir bakış. *Milli Eğitim Dergisi*, 140, 9–18.
- Ciftci, I., & Sucuoglu, B. (2005). *Bilişsel süreç yaklaşımıyla sosyal beceri öğretimi*. Ankara, Turkey: Kok.
- Cresswell, W. J. (2002). *Educational research: planning, conducting, and evaluating quantitative and qualitative research*. NJ: Merrill Prentice Hall.
- Demirel, O. (2010). *Öğretme sanatı*. Ankara, Turkey: Pegem A Yayıncılık.
- Demirel, O. (2012). *Eğitimde program geliştirme, kuramdan uygulamaya*. Ankara, Turkey: Pegem A Yayıncılık.
- Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: a research paradigm whose time has come. *Educational Researcher*, 33(7), 14–26.
- Johnson, R. B., Onwuegbuzie, A. J., & Turner, L. A. (2007). Toward a definition of mixed methods research. *Journal of Mixed Methods Research*, 1(2), 112–133.
- Ozcelik, D. A. (2014). *Eğitim programları ve öğretim*. Ankara, Turkey: Pegem Akademi.
- Pajares, F. (1992). Teachers' beliefs and educational research: cleaning up a messy construct. *Review of Educational Research*, 62, 307–332.
- Raudenbush, S., Rowen, B., & Cheong, Y. (1992). Contextual effects on the self-perceived efficacy of high school teachers. *Sociology of Education*, 65, 150–167.
- Tschannen-Moran, M., Woolfolk, H. A., & Hoy, W. K. (1998). Teacher efficacy: its meaning and measure. *Review of Educational Research*, 68(2), 202–248.
- Tyler, W. R. (1993). *Basic principles of curriculum and instruction*. USA: The University of Chicago Press.
- Yuksel, I. (2014). Investigating the impact of classroom management course on self-efficacy levels: an experimental study on pre-service teachers. *Education and Science*, 39(111), 259–269.