Teachers' Perception: Competent or Not in Curriculum Development

Gamze YAVUZ KONOKMAN [1], Tugba YANPAR YELKEN [2], Kürşat KARASOLAK [3], Esra CESUR [4]

[1] Asisst. Prof. Dr., Bartin University, Educational Sciences, Bartin, Turkey

[2] Prof. Dr., Mersin University, Educational Sciences, Mersin, Turkey

[3] Dr., Mersin University, Educational Sciences, Mersin, Turkey

[4] Doctorate student, Mersin University, Educational Sciences, Mersin.

ABSTRACT

The purpose of the study is to determine teachers' perceptions on curriculum development competencies and determine whether their perceptions differ according to gender, branches, seniority and graduated faculty type. The study consist of two parts: One part is the improvement of curriculum development competency scale with the participation of 350 teachers in Turkey; the other is the determination of teachers' perceptions on curriculum development competencies with the participation of 472 teachers in Turkey. The validity of the scale is provided with exploratory and confirmatory factor analysis. The analysis results indicate the scale with 37 items has a single factor and the Cronbach Alpha coefficient parameter is calculated as .945. Descriptive statistics are examined to determining the teachers' perceptions on their curriculum development competencies. Mann Whitney U test and Kruskal Wallis H test are used to determine whether the teachers' perceptions on curriculum development competencies differ according to gender, branch, seniority and graduated faculty type. As a result, teachers often perceive themselves incompetent on curriculum development and their perceptions only differ as regards branch.

Keywords: *teacher, curriculum development, competency*

INTRODUCTION

Teachers have to know objectives, contents, teaching methods and techniques and evaluation approaches well and apply them in learning-teaching processes in order to manage the requirements of current curriculum. No matter how well the developed curriculum is, it will not achieve its objectives unless teachers who put curriculum into practice fulfill their tasks efficiently (Gurol, 2004). So teachers as curriculum implementers have to train on implemented curriculum's principles, implementation approaches, objectives, evaluation and technical competencies (Erturk, 1994; Tasdemir, 2003). Teachers who play a major role on curriculum implementation process have responsibilities to practice developed curriculum accordance with its principles. Teachers are seen not only as active curriculum implementers but also as primary elements giving feedback about current curriculum to improve it. Because no matter how a curriculum is developed with ideal dimensions, if it is not applicable, then it cannot be said that it is effective. For this reason, an ideal curriculum will only achieve its objectives if it is implemented effectively. Therefore, teachers are expected to control the curriculum at least implementation level by mastering principles of teaching, objectives, contents, learning-teaching approaches, educational technologies and evaluation process of the curriculum. So

teachers contribute to the curriculum development process with their practical experiences (Tasdemir, 2003), knowledge of curriculum and feedbacks about implemented curriculum.

Qualified and effective curriculum development process will be possible with teachers' active involvement to this process (Ben-Peretz, 1980). McLaughling and Marsh (1978) emphasize the role of teachers as identifiers of objectives in curriculum development process is crucial for the success in curriculum implementation. Oliva's statement (2001) "Just as the curriculum leader works primarily in one realm (curriculum) of the continuum called curriculum-instruction and the secondarily in the other realm (instruction), so too the teacher works primarily in both instruction and curriculum" emphasizes the role of teacher in curriculum development process. Moreover, he (2001) adds that teachers and curriculum specialists all engage in activities to improve both curriculum and instruction. In that case, it can be infered that their roles are similar. Oliva (2001) explains this as "teachers and curriculum specialists are one and the same person- the teacher who is his or her curriculum specialist." Remillard (1999) states textbooks are printed doesn't mean that curriculum development process is completed. Curriculum development process is continuing in the classroom. That is to say, teacher's role as curriculum developer includes implementing designed curriculum in the classroom. For this reason, teachers are seen the most important element of curriculum development process which begins by establishing instructional problems and ends with suggestion of solutions. Elliot (1994) asserts that teachers are important elements in curriculum development process. Oliver (1965) also emphasizes that today teachers' roles on curriculum development is growing. Oliver (1965) adds that teachers have important role on curriculum development process because they know students' interests and needs, can adapt curriculum to region circumstances and can offer solutions. Stenhouse (1975) underlines the most convenient curriculum will be developed with the help of teachers' teaching experiences. Connelly (1972) indicates that teachers are included in curriculum development process by their participation to out of class curriculum development process managed by curriculum development experts and their practice and improvement of developed materials. Furthermore, for teachers to implement curriculums developed by teachers competent at curriculum development will be easier.

Teacher participation in curriculum development process is considered essential is also stated by many researchers (Connely, 1972; Carswell, 1977; Ben-Peretz, 1980; Young, 1985; Klein, 1985; Goodman, 1986). One of the researchers suggests a curriculum development approach in which teachers are assigned the roles both as developers and implementers (Ben-Peretz, 1980). Moreover, there are two types of studies, one of which focuses on teachers' role as curriculum developers at their own classes (Connelly, 1972; Ben-Peretz, 1980). The others extend teachers' role as developers from classroom to province or state (Young, 1985). In the research made by Young (1985) teachers collaborate with curriculum guidelines committee in preparing guideline and some teachers desire greater participation in curriculum development process but many are ambivalent towards it. The reasons of their ambivalence towards their participation in curriculum development are stated by teachers as their low position in the educational hierarchy, decrease of enthusiasm over time, etc (Young, 1985). Moreover, same factors motivating teachers for participating curriculum development process at broader organizational setting are told by teachers such as taking professional responsibility, sense of importance, curiosity about the curriculum development process, desire to be involved in decision making, etc (Young, 1985). Interacting with other educators, influencing curriculum decision, informed about field, gaining access to materials are such elements making teachers satisfied with participation in curriculum development (Young, 1985). Moreover, the benefits teachers gain from participation in curriculum development are stated as improvement in teaching, skills in curriculum development, enthusiasm for and self-confidence in curriculum development (Carswell, 1977). According to Carswell (1977) teachers taking part in curriculum development process make decision professionally on the selection of objectives, development and selection of materials and instructional strategies, using measurement and evaluation techniques. Klein (1985) adds a master teacher responsible for curriculum development at a school level have a broad knowledge on the goals of schooling, extensive abilities in curriculum development, skills in curriculum

design and teaching strategies. Anderson (1974), Miller and Dhand (1973) are the others reporting teachers' improved skills in and their positive feelings about curriculum development after having been involved in curriculum development. Teachers' involvement in curriculum development process contributes to their competencies in implementing externally developed curricula and making decision autonomously. Goodman (1986) reports the prospective teachers participate in each phase of curriculum development after participating in elementary/middle school curriculum method course at which critical approach to curriculum design has been thought. Developing themes and learning activities, exploring resources, evaluating students and the unit are the phases the prospective teachers decide on at the course. Through this course role of teachers as curriculum developers is empowered.

Connelly (1972) states how teachers can participate in curriculum development in two ways, one of which is their participation in external curriculum development process and another one is their involvement in continuously adaptation and development of materials offerd in curriculum. In the research made by Ben-Peretz (1978) the model of teacher involvement in curriculum development process is offered. With regard to the model, curriculum development process by teachers are shown in the following chart.

Figure 1. Curriculum Development Process by Teachers

The model explained by Ben-Perets offers teacher involvement in decision making in the process of curriculum development. In the model successful teachers in their previous teaching are selected to take part in curriculum development. The criteria for teacher selection in curriculum developmet process are determined as their success in previous teaching and their subject matter knowledge. After the selection of teachers, firstly teachers are asked to make suggestions on curricular problems, subject matter and teaching strategies be included in developing curriculum. At the second decision making stage, teachersconstruct curriculum materials in a collaboration with curriculum development experts. At another stage, content, instructional strategies and teaching activities that should be included in the curriculum are decided and first trial is done by teacher-developers at their own classes. Then as a last stage, instructional strategies and teaching activities at formal trial are evaluated by teachers.

Remillard (2015) also offers a model of teachers' curriculum development. The model is composed of three cycles in which teachers make decision on curriculum development. These cycles are called as design, construction and curriculum mapping. Design cycle includes the design of learning activities. Construction cycle involves the implementation of learning activities at the classroom. Curriculum mapping cycle involves making decision on organization and content of enacted curriculum. The model offered by Remillard (2015) is presented in the figure below:

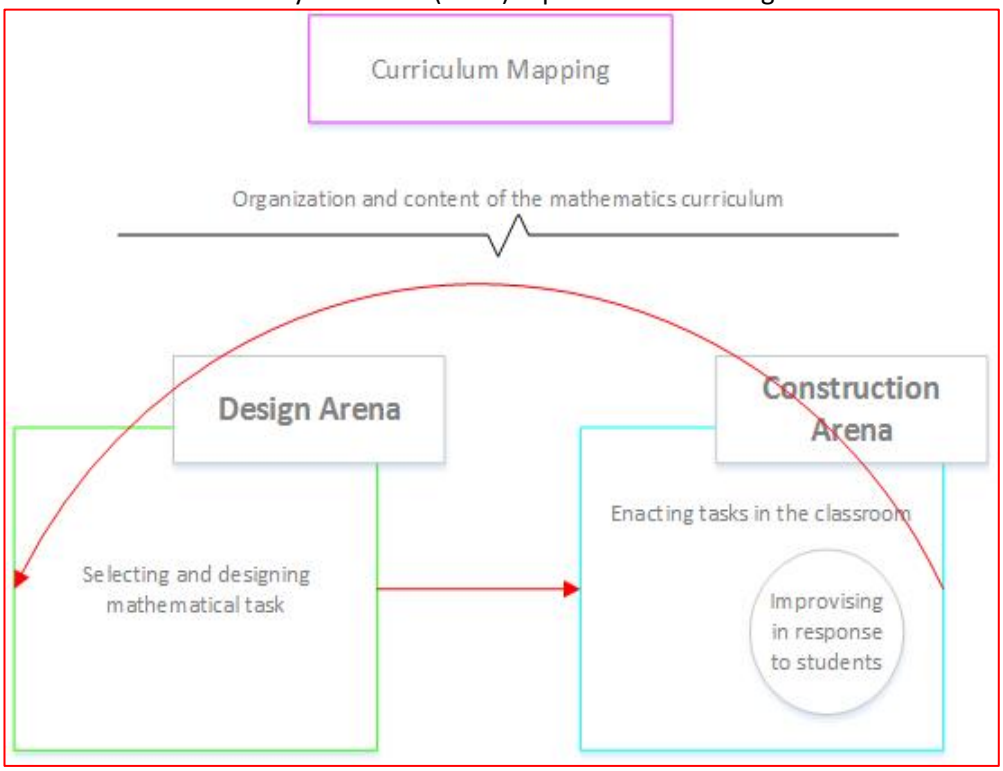

Figure 2. Overview of the Arenas in Curriculum Development

Due to the Law No 2547 of The Institution of Higher Education enacted in 1981, teacher training collages, institutes and faculties, formerly depending to the Ministry of Education and universities, were gathered under the framework of the Board of Higher Education (YOK) depending to universities. Restructuring of faculties of education was started by chairmanship of YOK from the 1998-99 academic year. With this restructuring, it was aimed to train more qualified teachers who would meet the needs of the country (YOK, 2004). To improve the qualities of teachers who teach accordance with the requirements of today and meet the expectations of the society, the overall adequacy of the teaching profession including professional knowledge, skills and attitudes was restructured by the Ministry of Education. Studies on determining the general and particular adequacy of the teaching profession and improving the competencies of teachers were conducted within "Teacher Training" part of Basic Education Support Project (TEDP) by the Ministry of Education's Department of Teacher Training (MEB, 2008). At the end of these studies; personal and professional values, professional development, student recognition, learning-teaching process, observation and evaluation of learning and development, relations with school-family and society and the knowledge of content and curriculum were determined as general adequacy of the teaching profession. At the knowledge of content and curriculum scope; it is expected from teachers to follow the changes made in their branch curriculum, to offer solutions about the problems that they experienced at the curriculum implementation process, to evaluate curriculum contents according to their importance, contribution to student improvement, relevance to student needs or level of development and to feel themselves responsible for these matters (MEB, 2008). Carl (2009) also emphasizes that teachers have to participate in curriculum development process and have enough knowledge and competencies to contribute this process. According to Demirel (2007), teachers have responsibilities at curriculum

development process such as having up-to-date knowledge and positive attitude related to curriculum development process, participating to the works on preparing every material that will be used in class, transforming the goals to behaviors and preparing measurement instruments to measure these behaviors, forming the teaching according to the needs and opportunities, participating to activities such as congresses or seminars to follow the developments … etc.

Despite the significance of the teachers' active involvement in curriculum development because of such their roles as organizing teaching flexibly, adopting the materials offered in the curriculum, evaluating and re-designing the instruction, etc. teachers are still considered not to be active in developing curriculum. However, curriculum development might turn out to be futile without the teachers' active participation. This point is suggested by Leithwood et al. (1976) as "the effectiveness of educational research is bound to the fact educational problems and solutions are determined by implementers and researchers". In another words, teachers are seen as vital partners of curriculum developers in terms of determining curricular problems and offering curricular solutions (Ben-Peretz, 1980). Ben-Peretz (1980) also states a teacher needs to be aware of the prerequisites for how the curriculum be implemented and difficulties in implementation and he adds the only way of achieving this is assigning teacher a main role in curriculum development. Also, Marsh (1984) adds that success in teaching is bound to being competent in curriculum planning. Klein (1985) also emphasizes every teacher should have curriculum development skills but they aren't equipped with such skills owing to limited practice based courses on curriculum development at teacher training programs. Robinsohn (1969) emphasizes the teacher can hardly be expected to implement curriculum effectively without participating in curriculum planning. Therefore, teachers are expected to have curriculum development competencies. To determine teachers' perception on their curriculum development competencies is very significant for implementing or developing the curriculum effectively and determining the contributions of teachers to curriculum development process. Moreover, the role of teacher as curriculum developer hasn't been studied too often at recent years. The studies on the role of teachers in curriculum development were made long time ego. For example, that teachers, who are the most familiar with students, are the ones not engaging in the activities to improve curriculum is stated by Dogan (1971, p. 149). Despite the importance of teachers' participation in curriculum development, their participation in curriculum development studies is limited (Erturk, 1994; Varis, 1988). Moreover, Yuksel (1996) states that teachers want to participate in curriculum development committee but they don't have enough knowledge on curriculum development. Because of these reasons, this study aims to determine perception of teachers from different branches on curriculum development competencies and to examine whether their perception differs according to their gender, branches, seniority and faculty they graduated. In accordance with this aim, the answers of the questions below are searched in this study.

1. How do teachers perceive their curriculum development competencies?
2. Do teachers' perceptions on their curriculum development competencies differ according to their gender?
3. Do teachers' perceptions on their curriculum development competencies differ according to their branches?
4. Do teachers' perceptions on their curriculum development competencies differ according to their seniority?
5. Do teachers' perceptions on their curriculum development competencies differ according to the faculty they graduated?

METHOD

Research model

As this study aims to determine the teachers' perception on their curriculum development competencies and to examine whether these perception levels differ according to their gender,

branches, seniority and types of faculty they graduated, survey model is used. The study is composed of two phases: A phase is scale development on curriculum development competency; the other one is the determination of teachers' perception on curriculum development competencies.

Universe and sample

For the first phase of the study 350 teachers working as pre-school, primary school and branch teachers in Turkey participate in scale development study. For the other phase, the sample determined by stratified sampling method consists of 472 teachers working in 2014-2015 academic year in Turkey. 235 of teachers are men (49.8%) and 237 teachers are women (50.2%) in the sample. 46 of the 472 teachers (9,7%) in the sample are pre-school teachers, 220 of them (46,6%) are primary school teachers and 206 of them (43,6%) are branch teachers. 93 of teachers participated in the study (19,7%) have 1-5 years teaching experience, 144 of teachers (30,5%) have 6-10 years teaching experience, 141 of teachers (29,9%) have 11-15 years teaching experience and 94 of teachers (19,9%) have 16 or more years teaching experience. While 376 of teachers (79,7%) state that they graduated from the faculty of education, 87 teachers (18,4%) state that they graduated from the faculty of arts and sciences and remaining 9 teachers (1,9%) state that they graduated from the other faculties.

Instruments

Data of this study is collected via "Perception of Curriculum Development Competencies Scale" and "Personal Information Form".

Personal information form

"Personal Information Form" composed by the researchers is used for examining the variables (gender, branches, seniority and types of faculty they graduated) which are thought to affect the perception of teachers on curriculum development competencies.

Development of perception of curriculum development competencies scale

"Perception of Curriculum Development Competencies Scale" developed by the researchers is used for determining the perception of teachers on curriculum development competencies. In the preparation process of the scale, teachers' views about what competencies can be related to curriculum development are got by interviewing 50 teachers working as pre-school, primary school and branch teachers in Turkey. In the light of teachers' views and literature, the scale's items are written. These items are presented into the views of 4 curriculum development experts. As a result of the experts' suggestions, necessary corrections are made and the final pilot-form including 48 items is composed. This pilot-form is applied to 350 teachers working as pre-school, primary school and branch teachers in Turkey. The scale is designed as five-level Likert type. The answer format of the scale is as follows; "Strongly Disagree (1)", "Disagree (2)", "Neither agree nor disagree (3)", "Agree (4)" and "Strongly Agree (5)".

Items are analyzed with Pearson's correlation coefficient. For the validity of the scale, exploratory factor analysis is applied and varimax rotation is performed. The suitability of data for factor analysis is assessed by Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett's Test of Sphericity. The Kaiser-Meyer-Olkin (KMO) value is found as .976 and Bartlett's Test is significant at the .05 level. In exploratory factor analysis, .30 is accepted as factor loading lowest limit in determining whether the items were included in the scale. Factors whose eigenvalues are over 1 are taken into process (Tabachnick and Fidell, 2001). Items whose factor loadings difference in two factors is less than .10 are removed from the scale. After each removal, structure validity of the instrument is computed again. Items which don't meet the criteria indicated are removed from the scale. *Cronbach Alfa* coefficients are computed for reliability studies of the scale. Internal consistency coefficient of the pilot-form is found as .99 and this result is considerably high. Before varimax rotation is not performed, results of exploratory factor analysis show 4 factors whose eigenvalues are over 1. The first factor uniquely explains 33.671% of the total variance. As the internal consistency coefficient of

the pilot-form is high, item-total correlations are over .30 and the percentage of the variance that the first factor explains is high; these can be accepted as the indicators of single-factor scale (Buyukozturk, 2011).

Varimax rotation is applied in order to see the scatter of factor loadings clearly. Exploratory factor analysis based on varimax rotation displays that the scale has got only one factor. The scale's item-total correlations, factor analysis and reliability coefficient are presented in Table 1.

Table 1 ***Scatter of Factor Loadings According to Varimax Rotation***

Items of the Scale		Item-total correlation	Factor	
			1	2
7	Being able to recompose the attainments or the objectives in the curriculum regarding learners' proporties	.862	.865	
4	Being able to determine appropriateness of the attainments for learners	.837	.841	
6	Being able to compose attainments for different grades	.820	.826	
48	Being able to follow the publications about curriculum development	.812	.817	
2	Being able to carry out need analysis	.841	.847	
20	Being able to use the learning strategies proposed to be used in the curriculum	.842	.846	
13	Being able to design creative educational materials	.813	.818	
10	Being able to prepare objective-content table in my own field	.827	.833	
11	Being able to evaluate the educational materials proposed in the curriculum by regarding the principles of material design	.835	.841	
39	Being able to reorganize the instruction as regards the results of evaluation	.819	.824	
45	Being able to evaluate the content of subject as regards the principles of content design	.836	.841	
42	Being able to regard the features learning environments should have such as in the process of arranging the instruction.	.821	.826	
38	Being able to criticize the applied curriculum in terms of meeting the individual's needs	.818	.823	
33	Being able to evaluate the curriculum	.817	.822	
15	Being able to use instructional technologies in the process of instruction	.815	.821	
9	Being able to plan the lesson regarding principles of instruction	.801	.806	
41	Being able to regard learning styles of the students upon planning the instruction	.827	.832	
22	Being able to use the instructional techniques proposed in the curriculum	.824	.83	
29	Being able to evaluate course book, work book and teacher guide book prepared together with the curriculum according to the principles of content design	.822	.827	
35	Being able to evaluate measurement evaluation activities proposed in the curriculum	.799	.805	
32	Being able to evaluate whether the contents of the books proposed together with the curriculum are appropriate for the attainments	.839	.843	
19	Being able to use technology assisted materials (example, e-book, etc.) in the courses	.801	.807	
37	Being able to evaluate the effectiveness of the curriculum	.854	.838	

34	Being able to carry out measurement and evaluation appropriate for the attainments	.834	.831	
25	Being able to regard learning principles when organizing activities	.815	.821	
26	Being able to follow current developments in curriculum development	.802	.809	
8	Being able to determine how learners learn	.815	.723	
3	Being able to determine the needs of the environment where the school is	.817	.72	
28	Being able to evaluate the activities proposed in the curriculum	.813	.718	
46	Being able to adapt the changes at the curriculum to learning environment	.817	.722	
12	Being able to design material regarding the principles of material design.	.822	.817	
21	Being able to use instructional methods proposed in the curriculum	.793	.799	
5	Being able to understand what the attainments or objectives refer to	.764	.772	
1	Being able to determine learners' need in the classroom	.754	.761	
14	Being able to design innovative instructional materials	.590	.602	
27	Being able to design curriculum regarding current educational developments	.580	.520	
24	Being able to develop teaching techniques particular to subject	524	.536	
Eigenvalue			28.409	.984
Explained Variance			68,875	2.589
Reliability *(Cronbach Alpha)*			0.945	

Table 1 indicates that item-total correlations of the scale is high. The overall *Cronbach Alpha* reliability coefficient of the scale is found as .945. Single factor explains 68.875% of the total variance. The first factor's explaining 68.875% of the total variance uniquely and computed *Cronbach Alpha* coefficient's being .945 are the indicators of items' measuring considerably homogeneous structure. Items 16, 17, 18, 23, 30, 31, 36, 40, 43, 44, 47 are removed from the scale after factor analysis and perception of curriculum development competencies scale consisting of 37 items is gained. As shown in Figure 3, there is an inclined fall between the first and second factors, but it is not seen any inclined fall between the second and the other factors; so these results show that variables measure a structure of single factor.

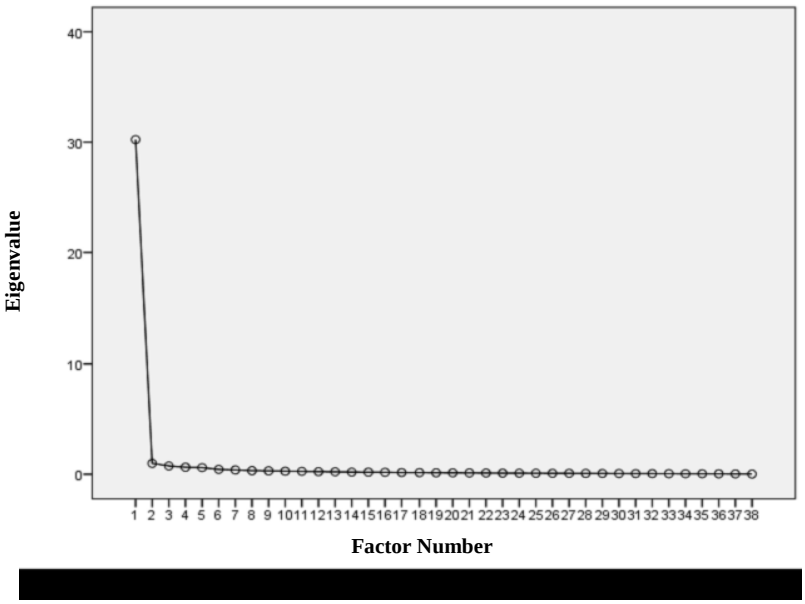

Figure 3. Eigenvalue Graph

The model emerged as a result of exploratory factor analysis is also tested with confirmatory factor analysis and goodness of fit indexes are examined. The statistics which are used frequently to indicate the fit between model and data are Chi-square/sd, RMSEA, RMR, GFI and AGFI (Duyan and Gelbal, 2008). χ^2/sd ratio of the model is less than 3 is indicator of excellent fit and it is less than 5 is the indicator of acceptable fit (Kline, 2005; Sumer, 2000). Moreover, GFI and AGFI are found higher than .90; RMSEA is found less than .05 show fit between model and data (Marsh and Hocevar, 1988). Also, GFI and AGFI are more than .80, RMR and RMSEA are less than .10 are the acceptable values for the fit between model and data. As a result of confirmatory factor analysis studies carried out as a validity study of curriculum development competency scale, NFI, NNFI, CFI and IFI are observed as.99. Moreover, RMSEA is calculated as .065; RMR is found as .025 and Chi-square/sd ratio (1572,24/629) about the model is found as 2,49. These values indicate the model shows excellent fit. T-values about the model are statistically meaningful are presented at the first path diagram below.

However, based on the result that GFI (.81) and AGFI (.78) are less than .85 it can be inferred that the model doesn't explain the observed structure adequately. Therefore, modifications between the items offered for the model (m2-m1, m13-m9, m15-m9, m19-m18, m35-m13, m16-m2) are made. After the modifications have been made, goodness of fit indexes about the model are calculated. CFI, NNFI, NFI and IFI are found as .99; RMR is calculated as .024 and RMSEA is found as .059. Chi-square/sd ratio (1440.93/623) is observed as 2.312. Moreover, AGFI is observed as .80, GFI is found as.82. AGFI and GFI values after the modifications between the items indicate that the model present good fit. Moreover, CFI, NNFI, NFI, IFI, RMR, RMSEA and Chi-square/sd values show the excellent fit of model. T-values of the offered model are presented at the second path diagram. The factor loads at confirmatory factor analysis model are found meaningful as a result of t-test ($p<0.05$).

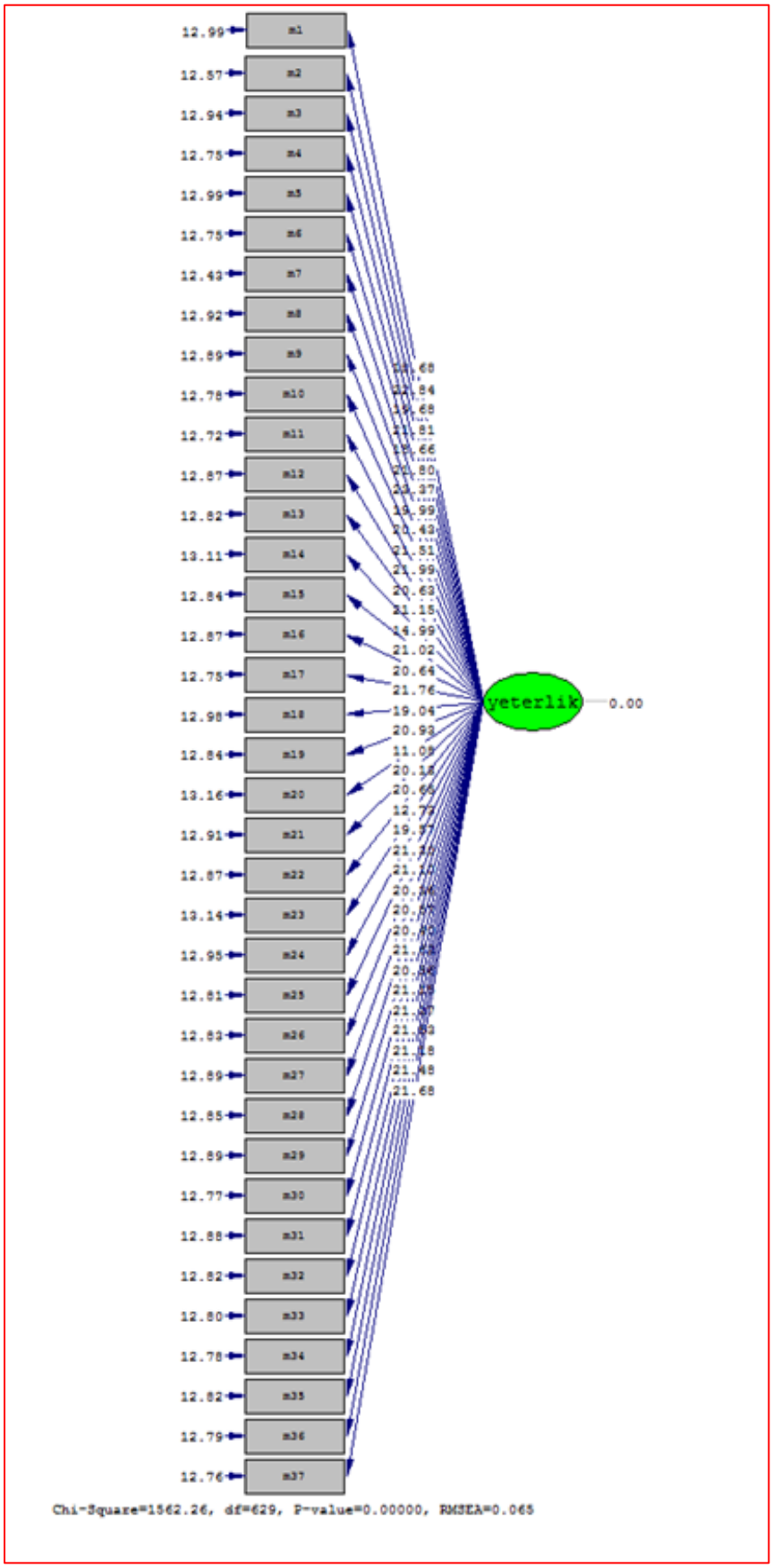

Figure 4. T-values of the model before modifications

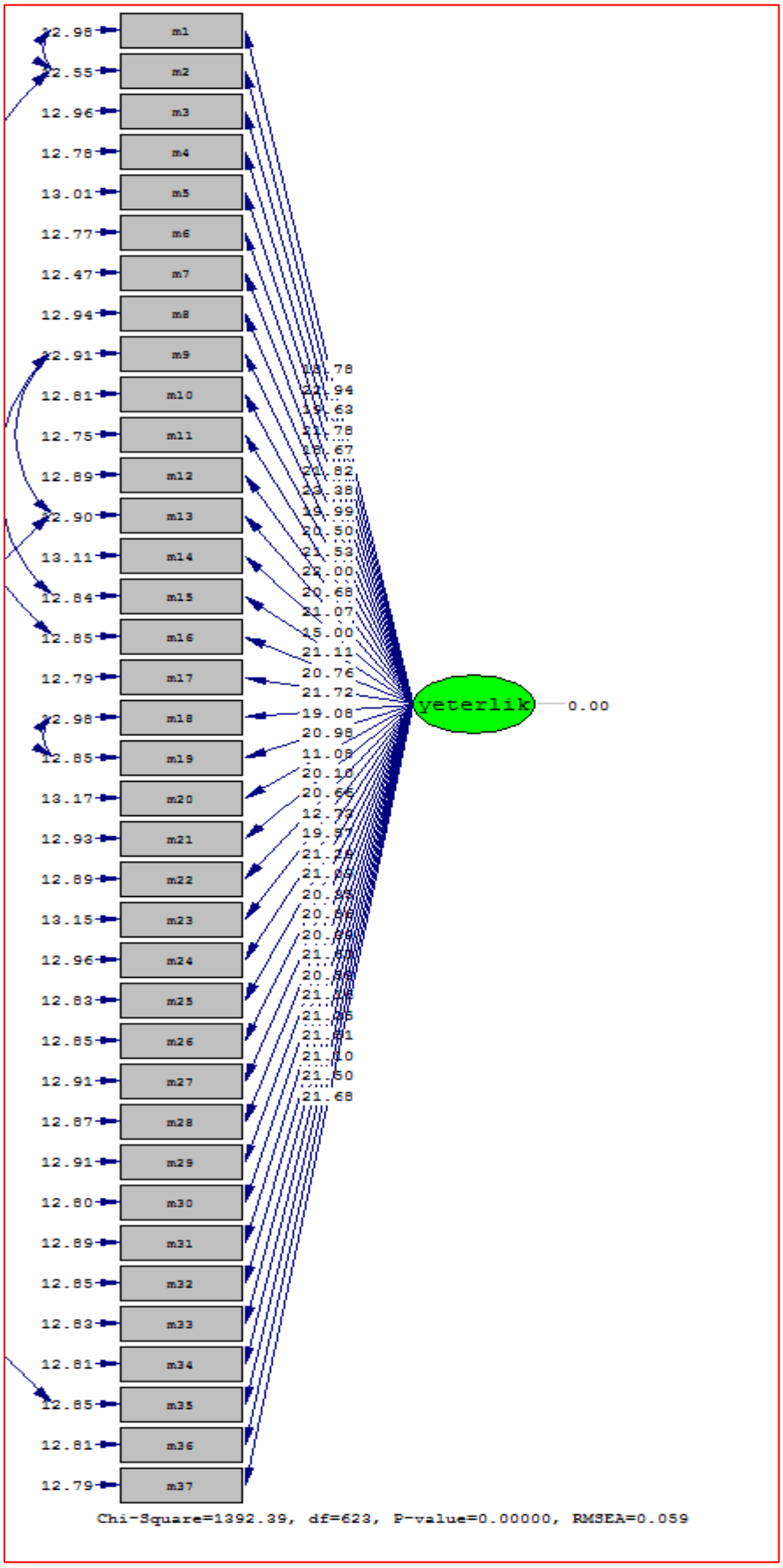

Figure 5. T-values of the model after modifications

Finally when the results of confirmatory and exploratory factor analysis (goodness of fit indexes, eigenvalue statistics, explained variance, eigenvalue graphic and path diagram) are examined together, it is inferred that the scale has a single factor structure to determine teachers' perceptions on their curriculum development competencies.

Data analysis

Arithmetic mean and standard deviation are analyzed in order to determine the perception of teachers on curriculum development competencies. Mann Whitney U test is used to determine whether the perception of teachers on curriculum development competencies differs according to their gender; Kruskal Wallis H test is used to determine whether the perception of teachers on curriculum development competencies differs according to their branches, seniority and types of faculty they graduated.

Ethical issues

It was taken great care to obtain all data in this article in accordance with guidelines of ethical conduct. The study was carried out by getting permission from ministry of national education in Turkey. Before collecting data teachers were given detailed information on what the study was about and why it was made and it was added the results would be used only for academic purpose. Moreover, the teachers working in Adana district in Turkey participated in the study voluntarily.

Findings

The maximum score to be got from "Perception of Curriculum Development Competencies Scale" is 185 and the minimum score is 37. In this research, the maximum score teachers got is 182, and the minimum score is 39. The mean score teachers got from "Perception of Curriculum Development Competencies Scale" is 110.38. To evaluate the level of teachers' perception on curriculum development competencies, the median score, 111, is accepted as mid-level. In the direction of the results, it can be said that teachers' perception level of curriculum development competencies is generally low. The results of Mann Whitney U test calculated to determine whether the perception of teachers on curriculum development competencies differs according to their gender is presented in Table 2.

Table 2 Mann Whitney U-test Results Concerning the Perception of Teachers on Curriculum Development Competencies According to Gender

Gender	N	Mean Rank	Sum of Ranks	U	p
Women	235	238.60	56070	27355	.739
Men	237	234,42	55558		

As observed in Table 2, there is no significant difference in perceived curriculum development competencies of teachers according to their gender, U=27355, p>.05. It is determined that mean rank of women's perception on curriculum development competencies is 238.60 and mean rank of men's perception on curriculum development competencies is 234.42. It is seen that the difference between women's and men's mean ranks is not statistically significant. Based on the result that gender is not a variable causing the differentiation on teachers' perception of curriculum development competencies, it can be concluded that today women and men have the similar competencies. The results of Kruskal Wallis H test calculated to determine whether the perception of teachers on curriculum development competencies differs according to their branches is presented in Table 3.

Table 3 Kruskal Wallis H-test Results Concerning the Perception of Teachers on Curriculum Development Competencies According to Branches

Branches	N	Mean Rank	Sd	X^2	P
Preschool teachers	46	265,29	2	6,290	.043
Primary school teachers	220	220,59			
Branch teachers	206	247,06			

As observed in Table 3, it is seen that there is a significant difference in perceived curriculum development competencies of teachers according to their branches, x2(sd=2, n=472)= 6,290, p<0.05. This finding shows that teachers have different curriculum development competencies according to their branches. When considering the mean ranks, it is seen that preschool teachers have the highest perception of competencies and they are followed by branch teachers. Mann Whitney U-test is performed over the binary combinations of groups in order to find where the significance difference lies. The result of Mann Whitney U-test shows that pre-school teachers' perceptions on curriculum development competencies are higher than branch teachers'. The results of Kruskal Wallis H test calculated to determine whether the perception of teachers on curriculum development competencies differs according to their seniority is presented in Table 4.

Table 4 Kruskal Wallis H-test Results Concerning the Perception of Teachers on Curriculum Development Competencies According to Seniority

Seniority	N	Mean Rank	Sd	X^2	P
1-5 years	93	255,88	3	5,322	.150
6-10 years	144	218,37			
11- 15 years	141	246,19			
16 years and over	94	230,57			

As it can be seen in Table 4, there is no significant difference in perceived curriculum development competencies of teachers according to their seniority, x2(sd=3, n=472)=5,322, p>.05. It is determined that the mean rank of teachers having 1-5 years experience is 255.88; the mean rank of teachers having 6-10 years experience is 218.37; the mean rank of teachers having 11-15 years experience is 246.19; the mean rank of teachers having 16 years and more experience is 230.57. From the results gained, it is seen that the difference among the mean ranks of teachers' perceptions on curriculum development competencies is not statistically significant. This finding shows that seniority is not a variable causing the differentiation on teachers' perception of curriculum development competencies. The results of Kruskal Wallis H test calculated to determine whether the perception of teachers on curriculum development competencies differs according to the types of faculty they graduated is presented in Table 5.

Table 5 Kruskal Wallis H-test Results Concerning the Perception of Teachers on Curriculum Development Competencies According to the Types of Faculty They Graduated

Faculty Type	N	Mean Rank	Sd	X^2	P
Faculty of education	376	232,75	2	1,816	.403
Faculty of arts and sciences	87	254,07			
Other faculties	9	223,33			

When considering the mean ranks of the groups, it is seen that teachers' perceptions on curriculum development competencies do not differ according to the types of faculty they graduated, x^2(sd=2, n=472)=1,816, p>0.05. It is determined that the mean rank of teachers graduated from faculty of education is 232.75; the mean rank of teachers graduated from faculty of art and sciences is 254.07;

the mean rank of teachers graduated from other faculties is 223.33. It is seen that the difference found among the mean ranks is not statistically significant.

DISCUSSION AND CONCLUSION

It has been determined that curriculum development competency perception of teachers' is generally low. In a study conducted by Duman (2006) it is determined that teacher candidates see themselves generally good about teaching, strategies, methods and techniques, assessment and evaluation methods, enough about competency of preparing yearly plan with units and incompetent about theoretical side of social-historical-philosophical basics of curriculum development. Gokçe (1999) states that primary school teachers' level of competence in the field of curriculum development and evaluation is quite low. In the study conducted by Akca (2001) it is stated that most of the directors and teachers do not participate in the curriculum development studies, do not take in-service training on curriculum development but the ones who take in service training are in the opinion that the courses are inefficient and the duration of the courses is short. In the line of these findings, so as to ensure curriculum development competency of teachers, providing them in service training and in education faculties giving curriculum development lessons to the students practically may be recommended. Because there are many studies that more dynamic role of teachers as curriculum developer is emphasized (Oliver, 1965; Connely, 1972; Carswell, 1977; Young, 1985; Ben-Peretz, 1980; Remilland, 1999). For example, Demirel (2003) emphasizes that teachers have responsibilities in the field of determining the needs of students in curriculum development process, determining the objectives, designing content, applying the teaching activities effectively, material development, curriculum evaluation, etc. In the research, which is named "The Role of The Teacher in The Teaching Curriculum development", conducted by Yigit (2002), he states that the teacher is the most effective part of curriculum development. How wonderful the prepared curriculums are, if the teachers, who is the practitioner of the curriculum, do not perform their duty effectively the curriculum can not reach its target (Erturk, 1994; Tasdemir, 2003 and Gurol, 2004).

It is appeared that, there is not an important difference between their perceptions about curriculum development efficiency according to their gender. Based on this finding, we can say that, today male and female teachers' efficiency perception on curriculum development is similar. Opposite to these studies, in some others, it is determined that gender difference effects the efficiency and self-efficiency perception about teaching profession of teacher candidates (Aktag and Walter, 2005; Capri and Celikkaleli, 2008; Mumanoglu and Bayir, 2009). In these studies, it is emphasized that the efficiency perception of woman about teaching profession is higher than men. Based on these findings it may be considered that since women in Turkey generally prefer to be teacher which is taught to be a profession appropriate for women. Therefore, they are expected to be more motivated and enthusiastic about teaching profession. However, with the coeducation which enables to educate the prospective teachers for the same aims it may be suggested that, gender is not a variable which differentiate male and female prospective teachers' perception on their competencies.

It is observed that the perception on curriculum development competency of the teachers differentiate significantly according to the branches. It is observed that when the average of the groups are taken into consideration it is observed that preschool teachers have the highest perception of competency and other branch teachers follow them. So as to determine between which groups the significant differences observed arise, Mann Whitney U test applied over groups' binary combinations. As a result of Mann Whitney U test the perception of preschool teachers about curriculum development competency is higher than branch teachers. Based on the findings it is observed that the perception of the teachers about curriculum development competency differentiates significantly according to their seniority. This finding shows that seniority isn't a variable which creates differentiation on teachers' perception on their curriculum development competency. As a result it is observed that the teachers, experienced between 6-10 years have higher perception of curriculum development competency than the teachers 1-5 years of experience; the teachers 6-10 years of

experience have lower perception of curriculum development competency than the ones experienced between 11-15 years. Therefore, teachers experiencing teaching between 1-5 years have more knowledge on the recent curriculum studies because of their graduation from education faculties at a short time. In fact curriculum development process goes on at classroom. Teachers are seen as a significant factor of curriculum development process in terms of adapting developed curriculum to students' interest and needs (Oliver, 1965). Therefore, the teachers experienced in their profession more also have higher perception of competency in curriculum development because of their lots of experiences on adaptation of developed curriculum with regard to students' properties such as their learning outcomes, needs and interests, educational problems and condition of the school, etc. When the results are taken into consideration, it is observed that the perception of the teachers about curriculum development competency does not differentiate according to the faculty type they graduated. Since the teachers who are the graduates of education faculties and other faculties have similar perception of competency, it is understood that the similar learning outcomes are gained through the pedagogical education. It can be inferred that one of the learning outcome teachers gain after the completion of pedagogical education programs is to be competent in curriculum development.

Finally, the findings indicate that teachers often perceive themselves incompetent on curriculum development and their perception doesn't differ in terms of gender, the graduated faculty and seniority but differ as regards teachers' branches. In order to increase teachers' perception level on curriculum development competencies, the teachers should be equipped with the competencies and skills, essential for curriculum development through the innovative teacher training strategies. Also, most of the theoretical information has been given before graduation from teacher training program. Based on this fact the number of the lessons on curriculum development must be increased. So theoretical knowledge can be practiced by increasing the number of the application courses on how to develop and imply curriculum. Since there will be significant differences on the learning outcomes, teaching methods and evaluation techniques of teacher training programs, in-service training for teachers should be given periodically on all of the phases of curriculum development (determination of goals and objectives, selection of content, determination and application of teaching strategies and methods, evaluation of learning outcomes and curriculum). Moreover, curriculum development committee composed of teachers and curriculum development experts may be formed at each school. Therefore, teachers member of the committee can improve their skills related to curriculum development and can be more enthusiastic and motivated about curriculum development. Therefore, teachers will have gotten a more dynamic role in education. Klein (1985) also suggests the existence of a master teacher at school district who would plan curriculum change, assist other teachers in improving learning activities, sharing the knowledge on curricular goals and learning activities with parents and community leaders. Based on the suggestion made by Kelin (1985), curriculum workshops on what is the role of master teacher should be organized for teachers and teachers are given a role to be master teacher at school. Based on what Olson (1977) offers "teacher educators have a major role in planning courses at which prospective teachers have a broad perspective on curriculum development design", it is suggested that learning environments in which designers and prospective teachers come together can be organized. Moreover, prospective teachers or in-service teachers are given chance to participate in the projects on curriculum development at each level of education.

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