

A Scale Development Study about School Principals' Contribution to Professional Development of Teachers

Öğretmenlerin Mesleki Gelişimlerine Okul Müdürlerinin Katkısına İlişkin Bir Ölçek Geliştirme Çalışması

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ABSTRACT

The purpose of this study is to develop valid and reliable Likert-Type scale which can be used to measure principals' contribution to professional development of teachers. We live in a world where every penny has importance for education. So professional development of teachers is popular topic in many developed countries. With this study a scale has been developed which reveals school principals' contribution to professional development of teachers and study was conducted in Duzce one of the province of Turkey located in West Blacksea Region. Teachers who employed in National Educational Directorate of Duzce selected as the sample group of study. After first administration and result of exploratory factor analysis, a three-factor scale was created which has 28 items. KMO test result of scale was .979 that is above of the acceptable limit .70. Bartlett's test of sphericity result was $p = 0.000 < .01$ and it is significant at level of .01. Scale has three factors above than 1.00 Eigen value. These three factors explain 72.9 % of the total variance. Cronbach's Alpha result was calculated as .986 and Spearman-Brown test-half test results were calculated as .966. After the second administration, Confirmatory Factor Analysis was performed and three-factor structure was confirmed.

Keywords: Teacher, professional development, contribution, school principal, scale development.

ÖZ

Bu çalışmanın amacı öğretmenlerin mesleki gelişimlerine müdürlerin katkılarını ölçmek için kullanılacak, geçerli ve güvenilir bir Likert Tipi ölçek geliştirmektir. Eğitimde her kuruşun önemi olan bir dünyada yaşıyoruz. Bu nedenle birçok gelişmiş ülkede öğretmenlerin mesleki gelişimi popüler bir konudur. Bu çalışmada, öğretmenlerin mesleki gelişimlerine okul müdürlerinin katkısını gösteren bir tarama çalışması geliştirilmiş Düzce ilinde araştırma yapılmıştır. Düzce Milli Eğitim Müdürlüğünde çalışan öğretmenler, örnek çalışma grubu olarak seçilmiştir. Ön uygulama neticesinde yapılan Açıklayıcı faktör analizinde üç faktörlü ve 28 maddeye sahip bir ölçek oluşturulmuştur. Ölçeğin KMO testi sonucu .979 olarak hesaplanmıştır ve bu kabul edilebilir sınırın (.70) üzerindedir. Barlett Kürsellik testi sonucunda $p = 0.000 < .01$ ve 0.01 seviyesinde anlamlıdır. Ölçeğin Eigen özdeğeri 1.00 üzerinde olan üç faktörü vardır. Bu üç faktör toplam varyansın % 72.9'unu açıklamaktadır. Ayrıca, Cronbach Alfa .986 olarak 1 ve Spearman-Brown test-yarım test .966 olarak hesaplanmıştır. İkinci uygulamanın ardından Doğrulamalı Faktör Analizi yapılarak üç faktörlü yapı doğrulanmıştır.

Anahtar Kelimeler: Öğretmen, mesleki gelişim, katkı, okul müdürü, ölçek geliştirme.

INTRODUCTION

1.1 Introduce the Problem

The importance of education has been valued and appreciated all over the world by the entire community (Lowe & Istance, 1989; Rotherham & Willingham, 2009; Mattern, Sethi & Texeria, 2014). People to be educated, yet people will be introduced because of the activities to be performed by the product or service that provides higher quality and more useful. In this way, limited resources will be used efficiently to produce useful things and more of them will be able to reveal. The rises of welfare in developed countries spontaneously have lead increase about the sense of awareness in education (OECD, 1989). States allocate more money from the budget for education each year because of positive effect on welfare. In Turkey, allocated money from the budget for education raised up to eighty billion of Turkish Liras more than any other item in the budget (Eğitim Tercih, 2014). But it seems that the allocated money from the budget isn't enough for the needs of education, nevertheless the increase is promising hope for education. Due to limited resources allocated money from the budget for education, every penny should be spent carefully. Large part of money allocated from the budget for education is used for teachers (salary, extra hours, seminar etc.) (TCMF, 2013). That shows us allocated resources from the budget should be used efficiently for each penny. Without the continuous improvement of teaching (and of professional teachers), the reforms will fail (Dilworth & Imig, 1995). Researchs about teachers' professional development shows that professional development is a necessity in order to carry out this profession properly and raise the quality of the education in the schools (The Holmes Group, 1986).

A teacher who interacts with students in classroom and allows students to make learning activity is unique for itself (İlhan, 2012). Every time they spend in the classroom, teachers are preparing students for the future. Preparing students for the future will shape the future. So, teachers while training students, they also build the future. The work of teachers of these activities is undoubtedly the most crucial factor in education. A teacher's education methods and techniques may lead students for future and more succesfull life. Teachers while educate students in classes they should also develop themselves continuously. A sustained and intensive professional development for teachers is related to student-achievement gain (Darling-Hammond et al., 2009). In the present world, an additional information which obtained today may be expired tomorrow beacuse of the tomorrows newly obtained informations. If a person does not adapt to fast changing world, knowledge can become old quickly. While performing their task in classes, teachers should continuously develop and improve the quality of their essential of teaching profession (Kaya & Kartallıoğlu, 2010). Teachers should better do these as the same time students' education, and states should also emphasize both students' education and teachers' professional development. Teacher development means enabling teachers to develop, to voice and to act on their sense of purpose (Fullan, 2014).

For teachers' professional development in Turkey, General Directorate of Teacher Training and Development has been established within Ministry of National Education (MoNE). This general directorate is involved in planning *In-Service Training* and it's contribute to the professional development of teachers is only seminars level (MoNE, 2014). In addition, some foreign language courses for teachers are given by the General Directorate of Teacher Training and Development. As in the world, teacher's professional development is hot and popular topic that specialist, academicians and policy makers continuously discuss about. Because for more than eight hundred thousand teachers in MoNE need professional development within years. These types of professional development activites help quickly to reach nationwide huge apart communities but they may not be successful at the desired level. Sometimes even deviating from the purpose of in-service training activities by teachers has been seen for vacation and spend as free time (Saban, 2000). In the professional development of teachers, professional development activities carried out in schools are more successful rather than public-service training activities (MoNE, 2007). School based teacher's professional development activities could contribute more to teacher's qualifications and competencies. Instant feedback in classroom, receiving support from colleagues, could facilitate teacher's professional development and educational goals.

Principals have to apply developmental and innovative activities in their school by holding student achievement in the centre (Gümüşeli, 2001), and they should also ensure settings that lead teachers to create professional goals. It means principals should shape their schools both as teaching and learning environment (Banoğlu & Peker, 2012). One of the major tasks and duties of the principal is to encourage and support teachers' professional development (Bilge, 2013). While learning for students is internalizing of new knowledge and behavior, the learning for teachers and administrators is renewal of existing knowledge, development and should be the replacement of the olds with the news. Teachers can develop themselves by using electronic media in areas where they think they are not professionally sufficient (Seferoğlu, 2004).

Information that teachers received in under graduate education mostly consists of theoretical knowledge. Compulsory courses in faculties of education and lessons in assigned schools are the practical training of teachers in Turkey (Ekinçi, 2010). Schools are places for teachers' professional training as well as a place where they gain experience. A university degree represents the theoretical part of the teachers' knowledge. The impact of school principals said to be pretty much in the upbringing and development of teachers in schools. School principals are responsible for managing of their schools. Therefore school principals affect teachers, students and other staff with various decisions taken by them. Teacher's professional development can be found in the various decisions taken by the principals (Timperley et al., 2007). Principals may take several decisions about professional development of teachers who are working in their schools, help teachers about their professional development and provide planning, implementation and evaluation of teachers' professional development (Şişman, 2002). These developmental activities may be direct (regulate teacher's course program for teachers postgraduate education, let teachers to attend seminars etc.) or indirect (organize new seminars for teachers, prepare suitable environment for professional development etc.). In addition, principals may play an important role in educating candidate teachers at their schools. A candidate teacher become as a part of education first time in assigned school; their career and professional development will significantly be affected from the first assigned school's culture and climate. At this point creative and positive school culture could contribute newly assigned teacher's professional development.

METHOD

The current study aimed to develop *A Scale for Principals Contribution to the Teachers Professional Development*. The draft scale conducted in Duzce (one of the province of Turkey located in West Blacksea Region) and 293 teachers from 17 schools which were randomly selected, 275 of them analyzed which were eligible for the development of this scale. As a result of the first administration, at second implementation reedited scale applied 432 teachers (different from the first implementation respondents), 390 of them were analyzed which are eligible. The process below was followed in this scale which is targeted to measure of school principals contribute to teachers' professional development.

2.1 Research Sample

As of the year of 2014 in the province of Duzce, 3617 teachers were employed for teaching at schools in National Education Directorate (Duzce MEM, 2014), all of them were considered as the universe of study. Scale distributed 330 teachers for first administration, 290 of filled forms were turned back, and 275 of them were used for analysis. During the administration of the draft scale, maximum effort has been spent for free environment. Therefore the scale was tried to be filled by teachers after face to face interaction without principals' interference. It was guaranteed that the responses of teachers will not be shared by principals. Thus it was expected teachers to ensure more realistic answers.

2.2 Draft Scale

Firstly literature review was performed for draft scale. Previously developed scales were examined. Semi-structured and open-ended questions about teachers' professional development and principals contribution were asked to 18 teachers and seven administrators. The responses were

examined and analyzed. Questions of the scale were created according to the data obtained as a result of analysis. Also comments and suggestions have been taken about the subject matter from four academicians at the Education Faculty of the Duzce University. After all, 45 questions were collected in the question pool. With these 45 questions, various draft scales were created. Those draft scales were reviewed three school principals and six teachers to resolve the deficiencies in terms of both content language and expression. After that, some questions reedited and the first practical draft scale was created. 16 academicians were asked about their views on the draft scale who work in Duzce University. 10 academicians gave feedback about scale. By 10 academicians feedback 13 questions changed. After that review study 14 questions removed and two new questions added to question pool. Before first administration, latest draft scale consisted five personal variables and 33 items about school principals contribution to the teachers professional development.

2.3 First Administration

On 11/02/2014 legal permission was obtained from the governorship of Duzce for the first administration to be applied in schools. With the permission of governorship, first administration was performed in 13 randomly selected schools, 293 of teachers filled the scale which has 33 items. Of these teachers 121 (41%) were Female and 172 (59%) were Male. After examination of scales, 275 forms were deemed valid for analysis.

2.4 Data Analysis

IBM SPSS 20.0 and LISREL 8.72 used for the data obtained from the 275 forms which filled by teachers from randomly selected 13 schools. One of the ways to determine the validity of a scale that makes sense is expert opinion (Büyüköztürk, 2012). Therefore, 10 academicians' opinion on the validity of the scale was taken. Exploratory Factor Analysis (EFA) was applied on the data in order to evaluate the structural validity and to reveal factor structure of the scale (Yıldırım, 2014). Data were analyzed with Kaiser-Meyer-Olkin (KMO) test and Bartlett's test of sphericity for the eligibility to EFA.

According to the data obtained from the 275 forms, personal variables frequencies are as seen as Table 1 below.

Table 1. Personal Data of First Administration

		Frequency	%
Gender	Female	121	44.0
	Male	154	56.0
Age	20-28	61	22.2
	29-37	118	42.9
	38-46	63	22.9
	47-55	27	9.8
	56+	6	2.2
Seniority	0-5	81	29.5
	6-10	71	27.6
	11-15	56	20.4
	16-20	27	9.8
School Type	21+	35	12.7
	Elementary	133	48.4
	High School	142	51.6
Teacher's Branch	Primary School	67	24.4
	Math & Science	69	25.1
	Social Sciences	60	21.8
	Foreign Language	24	8.7
	Vocational	55	20.0

It is possible to say with these frequencies; 40 percent of teachers are under 40 age, 57 percent of them employed less than 10 years, type of teachers' school are quite similar to each other and teachers' branch distribution was balanced except for foreign language.

2.5 Exploratory Factor Analysis

With the using of EFA, the relationship between many variables could interpret and reduced to a smaller number of factors (Altunışık et al., 2010). Before interpreting data, EFA could use for reducing variables to a smaller number of factor and intending to facilitate the data. EFA is aimed to demonstrate the relationship between the variables without having any previous idea. Therefore, EFA was performed on data firstly. Kaiser-Meyer-Olkin (KMO) test and Bartlett's test of sphericity were performed on data before EFA, results can be seen in the Table 2 below.

Table 2. Kaiser-Meyer-Olkin (KMO) and Bartlett's Test of Sphericity

KMO	.979	
Bartlett	X ²	16133.58
	Sd	990
	p	0.000

KMO test result was .979. That result is higher than the limit value .70 which is required for EFA. Also Bartlett sphericity test is $p = 0.000 < .01$ which is significant at the level of .01. According to the results of KMO and Bartlett's test of sphericity, it seems that EFA can perform on the data of the first administration.

2.6 Reliability Test

A valid scale must be reliable (Büyüköztürk, 2012) and it is possible to say that the precision of a measurement tool is mutually consistent the ability to provide stable measurement results and reliability (Tezbaşaran, 2008). If the results obtained from reapplication of the scale are consistent with each other, it is possible to say that the scale has high level of reliability. Some items could drop the reliability of scale because of the result of reapplied test. For the higher reliability of scale, the correlation between scale items needs to be high (Aslanargun et. al, 2013). Cronbach's Alpha and Spearman-Brown test-half test results were examined for the internal consistency of scale. If these test results are higher than .70, it is enough to say that scale is reliable (Büyüköztürk, 2012). The Cronbach's Alpha and Spearman-Brown test-half test results of scale are below.

Table 3. Cronbach's Alpha and Spearman-Brown Test-half Test

Cronbach's Alpha	.986
Spearman-Brown	.966

After these results it is possible to say that School Principals Contribution to Teachers Professional Development Scale has high level of reliable. There is nothing wrong to perform EFA on a reliable scale.

2.7 Item Analysis

EFA was conducted on the first implemented data which obtained with reliable and valid scale. Principal Component Analysis was performed for EFA using the Varimax vertical rotation technique. For determining the factor numbers of scale, the criterion was minimum Eigen value must be 1.00. For selecting the items, the minimum factor load had to be .32 was another criterion (Çokluk, Şekercioğlu ve Öztürk, 2010). As a result of EFA, it is seen that scale has three factors which have higher than 1.00 Eigen value as a criteria. These three factors explain 72.9 % of the total variance. Scree plot can see as below Figure 1.

These names are given to three factors which were had more than 1.00 Eigen value:

- Direct Contribution Factor
- Indirect Contribution Factor
- Candidate Teachers Factor

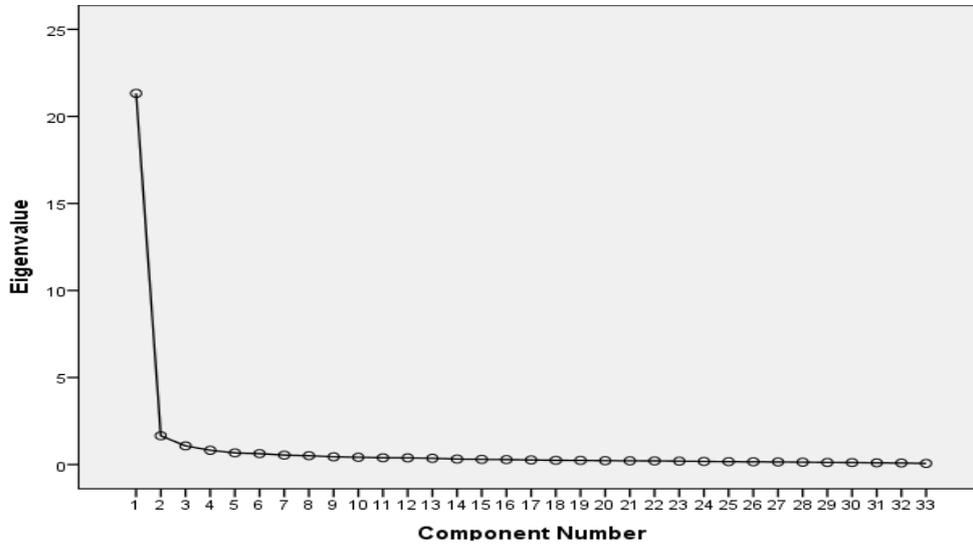


Figure 1. Scree Plot

Three factors structure of scale's items were examined by factor loads. None of the item's factor load was under .32. Also values of the factor loadings of each item were compared. Some of the items (2, 9, 17, 32, 33) were eliminated because of factor loads were closer each factor than .10. The factor loadings of items can be seen in Table 4 as below.

Table 4. Factor Loadings of Items

No	Item	Factor 1	Factor 2	Factor 3
1	Give importance to the professional development of teachers.	.621	.349	.413
2	Try to reward teachers who working for professional development.	.461	.551	.352
3	Try to remove barriers of professional development.	.611	.392	.412
4	Give emphasis to the training of candidate teachers.	.427	.318	.696
5	Make planning with experienced teachers about candidate teachers.	.350	.289	.779
6	Give tasks to experienced teachers for candidates' teachers training	.309	.198	.798
7	Try to meet the needs about the guidance of candidate teacher.	.370	.331	.773
8	Try to underline the importance of professional development to candidate teachers	.398	.384	.729
9	Encourage candidate teachers to engage in the professional development.	.544	.343	.580
10	Encourage teachers to communicate with him/herself	.767	.191	.302
11	Ensure teachers to do their activities about professional development continuously.	.677	.381	.372
12	Support teachers engage in scholarly activities.	.647	.403	.343
13	Encourage teachers to use their experience in school.	.720	.370	.327
14	Give satisfactory answers to the teachers who consulted to him/her	.744	.260	.281

15	Try to involve teachers in school activities.	.758	.337	.259
16	Encourage teachers to indicate their opinion on any matter relating schools.	.756	.317	.278
17	Organize lectures to enable them to do professional developmental activities.	.472	.509	.262
18	Provide feedback to teachers.	.689	.369	.282
19	Share new issues and topics about education with teachers.	.609	.408	.341
20	Attempt to create a suitable environment for professional development.	.583	.476	.379
21	Allow teachers to observe each other in classroom.	.177	.683	.228
22	Encourage teachers to make career plans.	.400	.660	.310
23	Collaborate with other principals for professional development of teachers.	.331	.677	.275
24	Show successful teacher as a model to other teachers.	.393	.596	.197
25	Support for postgraduate education of teachers.	.380	.605	.299
26	Invite experts to schools for seminars.	.128	.818	.139
27	Encourage teachers to follow studies in their branch.	.442	.715	.258
28	Encourage teachers to give seminars on their expertise.	.293	.818	.166
29	Help teachers to allocate time for professional development activities.	.399	.740	.273
30	Benefit teacher who has postgraduate degree for professional development of other teachers.	.296	.762	.253
31	Communicate with senior management to be organized new and various in-service training activities.	.334	.741	.285
32	Organize in appropriate manner timetables of the teachers who has postgraduate training	.445	.431	.292
33	Encourage teachers to collaborate with colleagues about professional development activities.	.580	.548	.295

Before EFA, the Scale for Principals' Contribution to the Teachers Professional Development was consisted of 33 items, after EFA five items were removed from the scale and 28 items were remained as a result. The last form which is consisted of three-factor structure and 28 items was ready for Confirmatory Factor Analysis.

2.8 Confirmatory Factor Analysis

After EFA results it was found that the scale consists of three-factor structures. For confirmation of this three-factor structure of scale was decided to apply Confirmatory Factor Analysis (CFA) (Arıcağ & İlğaz, 2007; Barrett, 2007; Büyüköztürk, 2012).

Table 5. Personal Data of Second Administration

Personal Data		Frequency	%
Gender	Female	201	51.5
	Male	189	48.5
Age	20-28	46	11.8
	29-37	174	44.6
	38-46	121	31.0
	47-55	35	8.9
	56+	14	3.7
Seniority	0-5	80	20.5
	6-10	104	26.6
	11-15	95	24.4
	16-20	64	16.4

	21+	47	12.1
School Type	Elementary	215	55.1
	High School	175	44.9
Teacher's Branch	Primary School	84	21.5
	Math & Science	84	21.5
	Social Sciences	122	31.3
	Foreign Language	43	11.0
	Vocational	57	14.7

With the permission of governorship, second administration was performed in 34 randomly selected schools. 432 teachers filled the scale which has 28 items. Of these teachers 201 (51,5 percent) were female and 189 (48,5 percent) were male. After administration of filled scale forms, 390 forms were deemed valid for analysis. According to the data obtained from the 390 forms, personal variables frequencies are as seen as tables below.

The model for the three-factor structure which was determined by EFA as a result, was tested with CFA. As a result of CFA conformity indexes can be seen in the Table 6 below.

Table 6. CFA Conformity Indexes

χ^2	df	χ^2/df	RMSEA	GFI	AGFI	SRMR	NFI	NNFI	CFI
1136.02	347	3.27	.076	.83	.80	.043	.99	.98	.99

These values of conformity indexes are higher than the acceptable values. As a result of CFA, three-factor structure of the scale is confirmed. *t* values for the status of factors that explains each item were examined and it was seen that these values were significant ($p < .01$). CFA path diagram standardized analysis coefficients for factor-item relations calculated with CFA are presented in Figure 1. As seen on Figure 1, it was concluded that the coefficients for the factors' direct effect on the items varied between .18 and .81. The observed factor-item relationships were found to be significant ($p < .01$)

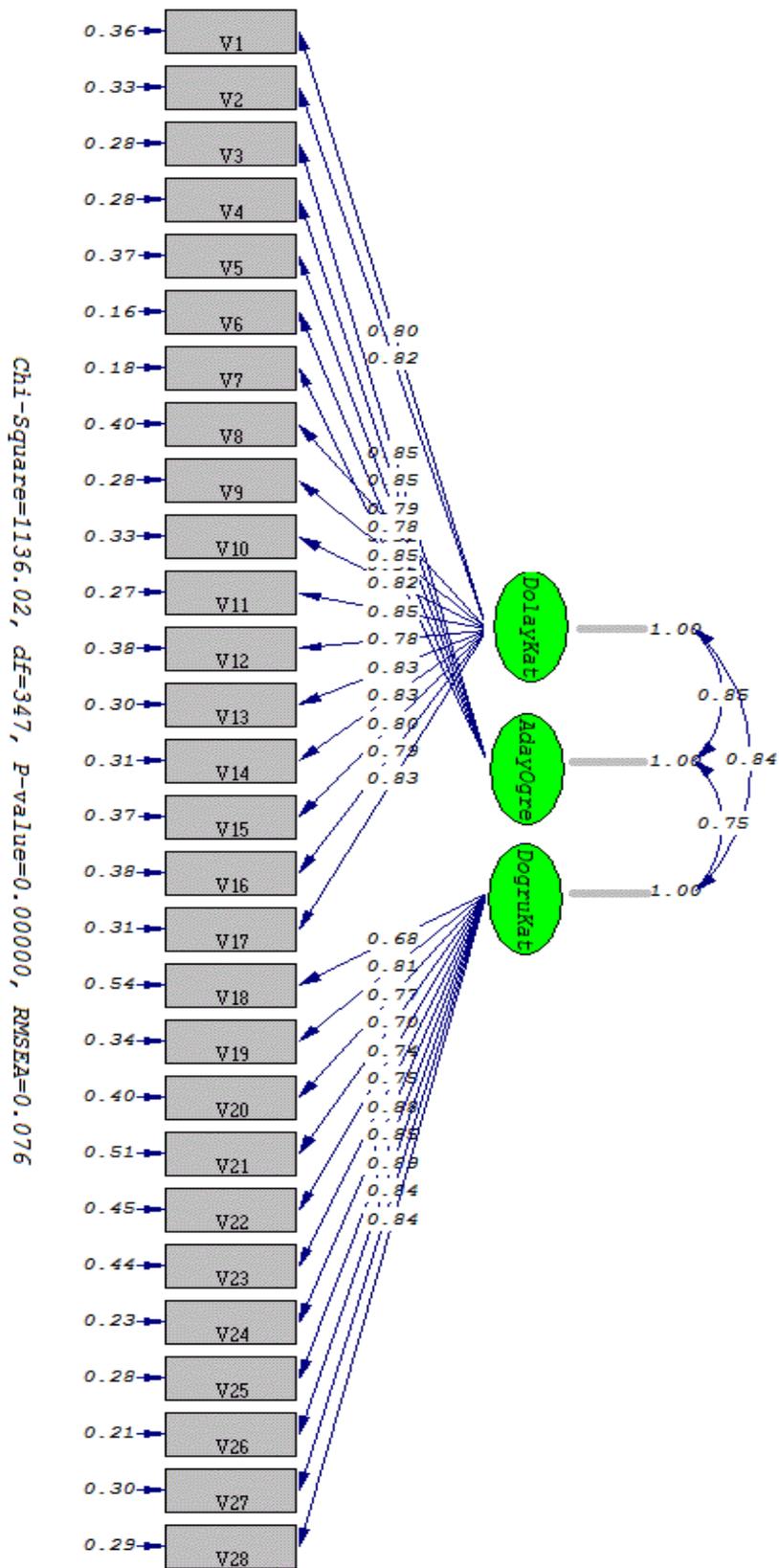


Figure 2. CFA Results

CONCLUSION

Throughout the study, totally 725 teachers were involved in the process of factor analysis. The KMO value was found .979; the result of Bartlett's test of sphericity was significant at the point of $p > .01$. These results showed that these data sufficient to conduct EFA (Altunışık et al., 2010) As a result of the Varimax vertical rotation in EFA, a three-factored structure that explains 72.9 percent of total variance, whose item factor loads are above .48, and whose Eigen values are above 1.0, was obtained. As a result of Cronbach's Alpha coefficient analysis (.986) and Spearman-Brown test-half test analysis (.966), the reliability results of the scale showed that the scale was valid and reliable. Also structure of the scale was analyzed by Exploratory Factor Analysis and founded that the scale has three-factor structure and that three-factor structure of scale was confirmed with Confirmatory Factor Analysis. Data analysis and test results showed that the Principals' Contribution to Professional Development of Teachers scale convenient assessment instrument in terms of validity and reliability. As a result of present study, it is thought that this scale is convenient for measuring the contribution of principals to the teachers' professional development in Turkish Schools. It can be said that it gives similar results to the work done by (Gül, 2007). A version of this scale for higher level executives may be developed to their contribution to professional development of teachers.

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GENİŞLETİLMİŞ ÖZET

Amaç ve Önem

İçinde yaşadığımız 21. yüzyılda eğitimin önemi tüm toplumlar tarafından anlaşılmıştır (Rotherham & Willingham, 2009; Mattern & Sethi & Texeria, 2014; Lowe & Istance, 1989). İnsanların eğitilmiş olması, yine insanlar tarafından yapılacak etkinlikler sonucunda ortaya konulacak ürün veya hizmetin daha kaliteli ve işe yarar olmasını sağlar. Bu sayede sınırlı olan kaynaklar verimli bir şekilde kullanılmış olacaktır ve ortaya daha işe yarar ürünler koyulmasını sağlanacaktır. Altundemir (2008) tarafından yapılan bir çalışmada 1995 yılından 2004 yılına kadar OECD ülkeleri tarafından eğitime aktarılan bütçenin sürekli arttığı görülmektedir. Bu çalışmada, Türkiye tarafından 1995 yılında eğitime Gayri Sarfi Yurtiçi Hasılasının (GSYH) yüzde 2.4 ünün ayırırken bu oranın 2004 yılında yüzde 4.1 e çıktığını görülmektedir. Öğretmenlerin mesleklerini icra etmeden önce aldıkları eğitim ve bilginin çoğunluğu teorik bilgi ve eğitimden oluşmakla birlikte, öğretmenlerin pratik eğitimleri eğitim fakültelerinde zorunlu ders olan staj dersleri dahil, okullarda olmaktadır (Ekinci, 2010).

Yöntem

Öğretmenlerin mesleki gelişimlerine okul müdürlerinin katkısını belirlemeye yönelik ölçek için "Likert Tipi" ölçek geliştirme yöntemi tercih edilmiştir. Bu ölçek geliştirilme aşamasında, Düzce ilinde rastgele seçilmiş 17 okuldan n=293 öğretmene taslak ölçek uygulanmış olup, geçerli kabul edilen 275 tanesi değerlendirmeye alınmıştır. Birinci uygulama neticesinde ölçek tekrar düzenlenerek n=432 öğretmene tekrar uygulanmıştır ve geçerli kabul edilen 390 tanesi değerlendirilmeye alınmıştır. 2014 yılı itibarıyla Düzce ilinde Milli Eğitim Müdürlüğüne (Düzce MEM) bağlı olarak 3617 öğretmenin görev yaptığı görülmüştür (Düzce MEM,2014). Bu yüzden uygulamanın evrenini 3617 öğretmen oluşturmaktadır. Literatür taraması, açık uçlu sorular ve görüş alışverişi neticesinde konu ile ilgili madde havuzunda toplam 45 madde biriktirilmiştir. Bu 45 madde ile taslak ölçekler hazırlanmıştır. Ölçeğin ön uygulama öncesi son halinde beş adet kişisel bilgilerle ilgili madde ve 33 adet okul müdürlerinin öğretmenlerin mesleki gelişimlerine katkıları ile ilgili madde bulunmaktadır. Ölçek üzerinde yapılan bu çalışmalar neticesinde ön uygulama aşamasına getirilmiştir.

Öğretmenlerin Mesleki Gelişimlerine Okul Müdürlerinin Katkısı Ölçeği'nin ham verileri SPSS 20.0 istatistik programı kullanılmıştır. Bir ölçeğin kapsam geçerliliğini belirlemenin mantıklı olan yollarından biri uzman görüşleridir(Büyüköztürk,2012) Bundan dolayı 10 akademisyenden ölçeğin kapsam geçerliliği hakkında görüş alınmıştır. Daha sonra ölçeğin yapı geçerliliğini belirlemek ve boyutlarını ortaya çıkarmak için ise Açıklayıcı Faktör Analizi yapılmıştır (Yıldırım,2014). Verilerin Açıklayıcı Faktör Analizi için uygun olup olmadığına KMO-Bartlett testi ile bakılmıştır. Ön uygulama sonucunda yapılan geçerlik ve güvenilirlik çalışmasından sonra 28 maddeli ve 3 faktörlü bir ölçek hazırlanmıştır. Ölçek üzerinde KMO testi, Bartlett testi ve Açıklayıcı Faktör analizi yapılmıştır. KMO testi sonucu .979 çıkmış olup kabul edilebilir seviyeden ,279 daha yüksektir. Bartlett testi sonucu ise $p=0.000 < .01$ olduğu için 0.01 düzeyinde anlamlıdır. Ölçeğin, özdeğeri birin üzerinde olan üç faktörü bulunmakta olup bu faktörler toplam varyansın %72,9 unu açıklamaktadır. Ayrıca ölçeğin Cronbach Alpha katsayısı .986 ve Spearman-Brown Formül değeri ise ,966 olarak hesaplanmıştır. Asıl uygulama 432 öğretmene uygulanmış olup yapılan doğrulayıcı faktör analizi neticesinde 3 faktörlü yapı doğrulanmıştır.

Sonuç ve Tartışma

Düzce ilinde rastgele seçilmiş toplam 725 öğretmene uygulanarak geliştirilen Öğretmenlerin Mesleki Gelişimine Okul Müdürlerinin Katkısı Ölçeği ile okul müdürlerinin öğretmenlerin mesleki gelişimlerine ne derecede katkıda bulunduğu ortaya konulmaya çalışılmıştır. 21. Yüzyılda “Hayat Boyu Öğrenme” ve “Öğrenmenin Yaşı Yoktur” gibi anlayışla ortaya çıkan sürekli öğrenme ve gelişme anlayışı öğretmenlik mesleğinde de kendine yer edinmiştir. Öğretmenlerin mesleki gelişimlerini sağlamada hiç şüphesiz okulun ve okul müdürünün yeri çok önemlidir. Öğretmenler mesleki gelişimlerini tek başlarına sağlamaya çalışabilecekleri gibi, okul müdürlerinin destekleri ve katkısı ile mesleki gelişimde çok daha başarılı ve etkileyici sonuçlar alabilecekleri şüphesizdir. Üniversiteden mezun olduktan sonra mesleki gelişimi göz ardı eden öğretmenlerin, mesleki gelişimini ön planda tutan öğretmenlere göre daha az rağbet görecekları kesindir. Öğretmenlerin mesleki gelişimleri noktasında, okul müdürleri her türlü kolaylığı ve katkıyı sağlayacakları gibi bunları sağlamayıp çeşitli engeller de ortaya koyabilirler. Bu çalışma ile geliştirdiğimiz ölçeğin amacı da okul müdürlerinin öğretmenlerin mesleki gelişimlerine ne derece katkı verdiklerini ölçmektir. Yapılan Açıklayıcı ve Doğrulayıcı Faktör Analizleri ile ölçeğin Türkiye'nin herhangi bir okulunda güvenle kullanabileceği ortaya konulmuştur. Ölçeğin güvenilirliğinin sağlanması ile okul müdürlerinin öğretmenlerin mesleki gelişimlerine katkılarının ölçülmesi hususunda başarılı sonuçlar elde edilebilecektir. Daha üst düzey yöneticilerin öğretmenlerin mesleki gelişimine katkılarının ölçülmesi için bu ölçeğin farklı türleri geliştirilebilir.