Developing A Teacher Characteristics Scale

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ABSTRACT

It is a known fact that every profession needs to be developed during its practice. To be able to acquire this we need to know the characteristics of teachers related to their professional development. For this purpose this study tries to develop a scale to measure teacher characteristics which would help in designing in-service training programs to educate teachers. The first draft of the scale had 69 items and was administered to 99 senior teacher candidates in the faculty of education. The results were analysed by using exploratory factor analysis. As a result it was found that the scale contains three components, namely, teacher-student interaction characteristics with 13 items, characteristics related to teaching profession with 11 items, humanistic and justice characteristics of teachers with 9 items.

Keywords: teacher characteristics, in-service training, professional development.

INTRODUCTION

Teachers play an influential role in shaping the society and for this reason they are expected to have certain types of attitude and behavior to fulfil the requirements of their work. In order to work in a field that requires such dedication, they have to have a compatible personality with this profession to get satisfaction from what they are doing, love teaching and learning process and be happy doing this job. Otherwise, needs of individuals such as happiness, self-fulfilment and self-actualization cannot be met and for this reason they are not expected to be successful in their profession (Dağ, 2010).

Student characteristics as well as teacher characteristics affect the teaching-learning situation, but this study will be concentrated on teacher characteristics only. Hence a review of the existing literature was done to find desired attitudes and behaviour of teachers. Seferoğlu (2004) listed the characteristics of a qualified teacher as follows:

- Provides learning experiences, taking into account the characteristics of students
- Believes in the necessity of advance planning and plans before implementation.
- Develops suitable instructional materials for students at different levels of capacity.
- Knows advantages and limitations of different approaches, methods and techniques for the realization of effective learning.
- Encourages students to interact with each other and participate in the teaching-learning process and enables them to effectively take responsibility of their own learning.
- Knows the importance of evaluation in the teaching-learning process and the necessity of using different evaluation strategies.
- Knows the necessary resources and methods to motivate students on topics such as career choice and gaining learning habits.
- Takes the necessary measures to improve the basic skills of students.
- Knows physical, emotional and mental characteristics of students and designs teaching activities accordingly.
- Is not aware only of formal education but also knows adults education and is equipped to support professional development.
- Plans, manages and evaluates school extracurricular activities in cooperation with the school administration.
- Knows the necessity of constant professional and personal improvement.
- Knows the structure and functioning of the education system and schools and provides necessary opinions and suggestions for development.

- Is in cooperation with parents and other related people for the best education of students (in Sarpkaya, 2012).

According to Ronald and Grogan (2003) teachers' behaviors that are necessary in quality classes should be examined in specific categories. In the *having good command of the subject area and passion for teaching* category there exist behaviors such as deep knowledge in the teaching-learning process, loving his/her subject, relating teaching tools and materials to students' experiences and life. In the *relationships with students'* category there are behaviors such as calling students frequently with their names during lessons, being concerned of the achievements of students in their tests, and building a warm friendly relationship with students. In the *validity* category behaviors such as creating additional opportunities for students, and helping students individually outside of class time exist. İn the *class arrangement and management* category behaviors such as maintaining an appropriate pace during lessons and diversifying classroom activities are given place (in Cafoğlu, 2007).

Maria Orlando (2013) points out that most teachers give no effort to do more than the minimum required. Teaching is not an easy work and some teachers can never be excellent but stay at a medium level of competency in teaching. To be a great teacher one must constantly work very hard to provide a nurturing and challenging environment for fostering maximum learning of their students. Maria Orlando based on her K-12 administrative experience and many teacher evaluations that she made listed nine characteristics of a great teacher as follows:

"1. A great teacher respects students [and] creates a welcoming learning environment for all students.
 2. A great teacher creates a sense of community and belonging in the classroom [and] lets students know that they can depend not only on her, but also on the entire class.
 3. A great teacher is warm, accessible, enthusiastic and caring [and] is the teacher to whom students know they can go with any problems or concerns.
 4. A great teacher sets high expectations for all students [and] knows that students generally give to teachers as much or as little as is expected of them.
 5. A great teacher has his own love of learning and inspires students with his passion for education and for the course material. He constantly renews himself as a professional on his quest to provide students with the highest quality of education possible.
 6. A great teacher is a skilled leader [and] conveys this sense of leadership to students by providing opportunities for each of them to assume leadership roles.
 7. A great teacher can "shift-gears" and is flexible when a lesson isn't working [and] assesses his teaching throughout the lessons and finds new ways to present material to make sure that every student understands the key concepts.
 8. A great teacher collaborates with colleagues on an ongoing basis [and] uses constructive criticism and advice as an opportunity to grow as an educator.
 9. A great teacher maintains professionalism in all areas—from personal appearance to organizational skills and preparedness for each day." (Retrieved on August 27, 2016, brackets are mine).

Since a lot of hard work is required to achieve the status of a great teacher we must help teachers in their efforts. For this reason we must be aware of their existing characteristics to know exactly what they need to improve themselves. This study aims to develop an instrument for assessing teacher characteristics related to their teaching profession.

Significance and Purpose of the Study
The purpose of this research is to develop a scale to measure teachers' perceptions about their own teaching characteristics. This scale will help teachers improve their teaching-learning process by raising their awareness about their own strengths and weaknesses in the teaching profession. In addition, the scale can be used by administrators as a part of teacher assessment procedure. With this scale teachers will be able to assess their own behaviors and try to change to be more effective in class. Administrators and inspectors will also be aware of the characteristics of teachers and will be in a better position when designing in-service training courses/workshops for them.

RESEARCH METHOD
The Population and Sample of the Study
The research population consists of senior teacher candidates studying at private universities in the TRNC in the 2015-2016 academic year. The sample for the first pilot study was chosen randomly and consists of 99 senior

teacher candidates in the faculty of education. 41 of them (41.4%) were female and 58 (58.6%) were male. The average age of the teacher candidates was 22.59.

Development and Administration of Teacher Characteristics Scale
After a thorough review of the literature characteristics of teachers were listed in three major areas, namely, teacher-student interaction characteristics, characteristics related to the teaching profession, humanistic and justice characteristics. From this list 69 items could be written for the first draft of the scale. A five-point Likert-type scale with options "fully agree", "agree", "undecided", "disagree", "strongly disagree" was used. Group administration method STAM (Synchronous Technological Administration Method) which uses PowerPoint slides and optic forms to collect data was used (Yaratan and Suphi, 2013).

Data Analysis
The results were analyzed by using exploratory factor analysis with principal components analysis and Varimax rotation.

RESULTS
Exploratory factor analysis was conducted to identify items that reflect the three predetermined categories of teacher characteristics. First sampling adequacy and the significance of the relationship between items were checked to decide on the applicability of the factor analysis. As can be seen from Table 1, KMO is above .70 which means that the sample size is adequate for doing a factor analysis. Also Bartlett's Test of Sphericity turned out to be significant which means that there is enough correlation between the items of the scale to do a factor analysis.

Table 1. KMO and Bartlett's Test of Sphericity results

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.734
Approx. Chi-Square	1419.998
Bartlett's Test of Sphericity df	561
Sig.	.000
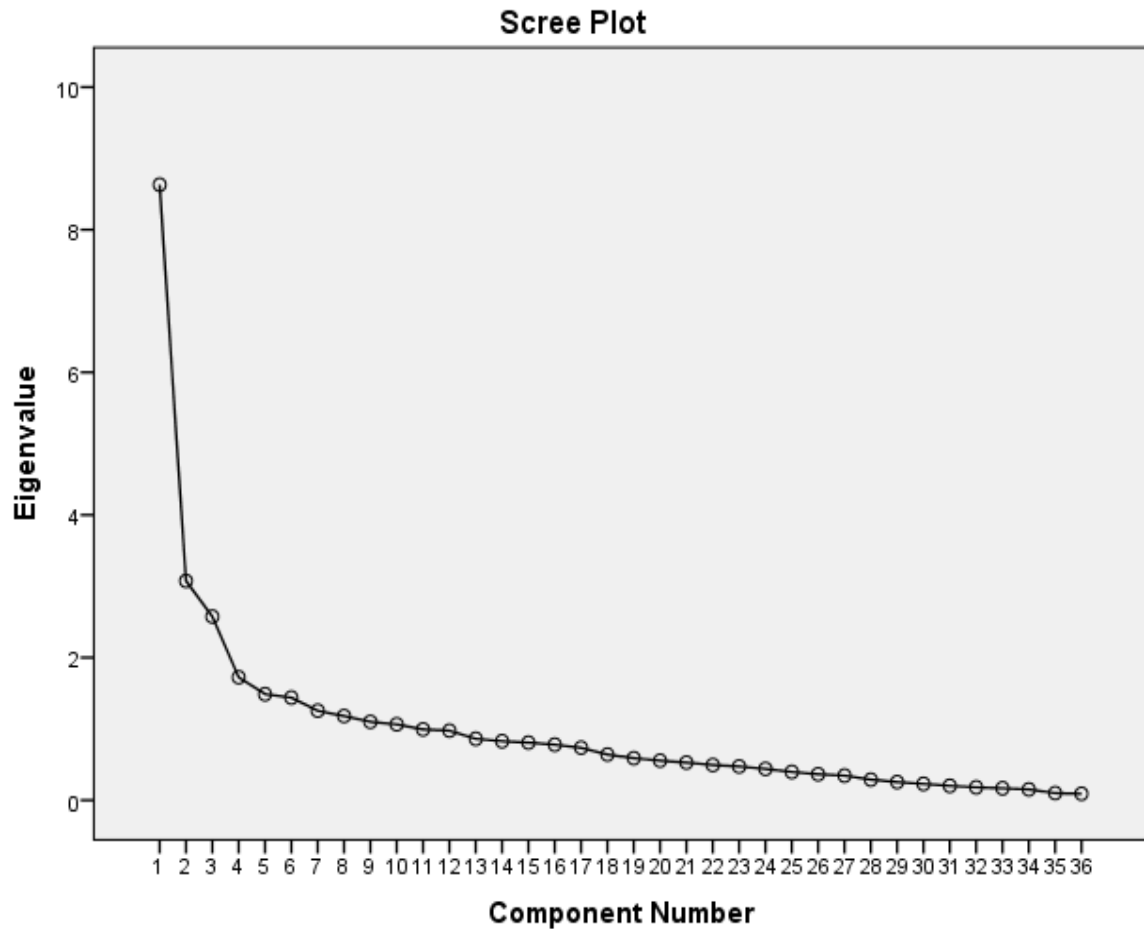
Figure 1: Scree Plot for the Exploratory Factor Analysis.

From Figure 1 it can be seen that on the vertical part of the scree plot there are three eigen values that represent three factors and the rest of the eigenvalues are on the horizontal part of the scree plot. Hence, as we expected, three components can be extracted from the scale. After the factor analysis the following components were obtained:

1. *Teacher-student interaction characteristics of teachers* component with 13 items,
2. *Characteristics of teachers related to the teaching profession* component with 12 items,
3. *Humanistic and justice characteristics of teachers* component with 11 items.

After Varimax rotation the items related to the *teacher-student interaction characteristics* component were obtained as shown in Table 2. Cronbach's alpha for this component was found to be .866 which indicates a very reliable component. This component accounted for 15.3% of the item variance.

Table 2. Rotated Component Matrixª for Teacher-Student Interaction Characteristics of Teachers

	Component		
	1	2	3
34. I like to participate in social activities with my students.	.747		
59. I include the ideas of my students to my lessons.	.699		
45. I create additional opportunities and I help my students individully outside class time.	.678		
35. I set up a warm friendly relationsship with my students.	.653		
42. I organize appropriate learning experiences to motivate my students to fulfil their motives.	.620		
67. I am open to opinions and suggestions of my students about my teaching.	.580		
64. I tell my students that they can see me outside the classroom to discuss and ask questions about the course.	.562		
47. I diversify classroom activities.	.545		
65. I encourage cooperative behavior of my students in my class by giving assignments to enable them to help each other.	.542		
36. I avoid critical and judgmental responses while I listen my students.	.528		
66. I follow the individual development of my students and provide the necessary assistance to them in this process.	.526		
32. I call my students by their names.	.506		
38. when I interact with my students I share my positive feelings about them.	.487		

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 6 iterations.

Table 3. Rotated Component Matrixª for Characteristics related to the teaching profession

	Component		
	1	2	3
25. I pay attention to sources of knowledge around me to utilize them for educational purposes.		.673	
40. I have the pattern of personality to raise the prestige of the teaching profession.		.667	
23. I have the professional insight to sense behavioral problems before they occur.		.580	
26. I am knowledgeable in my professional area.		.577	
43. I use teaching-learning principles and methods effectively.		.573	
21. I do my work properly and on time.		.538	
6. My feelings of self-confidence are developed.		.523	
46. I maintain an appropriate rate of progress throughout the lesson.		.516	
24. I show an intense interest in developing myself.		.515	
57. I change the physical layout of the classroom if I believe that it will provide a better learning opportunity for my students.		.506	
62. I ask questions in class to produce an effective environment.		.459	
9. I am an organized teacher.		.417	

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 6 iterations.

Varimax rotation for the component *characteristics related to the teaching profession* revealed 12 items to be related as shown in Table 3. Cronbach's alpha was found to be .812 which indicates that this component is also a very reliable component. 13.0% of item variance were accounted for by this component.

Humanistic and justice characteristics component was obtained after Varimax rotation with 11 items as shown in Table 4. Cronbach's alpha was found to be .832 indicating a very reliable component. This component explains 11.4% of item variance.

Table 4. Rotated Component Matrixᵃ for Humanistic and Justice Characteristics of Teachers

	Component		
	1	2	3
10. I am an honest and fair teacher.			.712
17. I am a sensitive person.			.647
33. Instead of an authoritarian approach caused by the concern of losing control, I set up humane relationships with my students with an equal and democratic approach.			.622
13. I am a tolerant teacher.			.596
41. I am aware that there may be some students with learning disabilities or behavioral disorders due to individual differences.			.581
19. I show an unbiased and objective attitude in solving the problems.			.570
8. I show love and care to the people around me.			.566
31. I can establish positive relationships with my students.			.528
30. I am aware of the individual differences of my students.			.495
52. I clearly state my expectations from my students about their lessons.			.478
50. I provide equal learning opportunities to all students in my class.			.453

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 6 iterations.

CONCLUSION

In this study "Teacher Characteristics Scale" was designed to have three factors, namely, teacher-student interaction characteristics, characteristics related to teaching profession and humanistic and justice characteristics of teachers. Other studies which resemble to this study have been found in the literature that had been reviewed. One such study was done by Erdoğdu (2013) who developed "Perceived Teacher Behaviors Scale". This scale was administered to elementary school students to collect data about their perceptions of the behaviors of their teachers. Only two factors were extracted from this scale. The first factor reflected the perceptions of students about the democratic behaviors of their teachers and the second factor reflected the perceptions of students about the authoritarian behaviors of their teachers. Yeşil (2010) also worked on the democratic behaviors of teachers and ended up with a one factor instrument solely related to democratic behaviors of teachers and the scale was titled as "Scale for Democratic Teacher's Behavior Determination".

Tarhan and Şentürk (2011) called their instrument as "Teacher Attitude Scale toward Undesirable Intra-class Behaviors of Students" which had two factors "Emotional Attitude Expressions" and "Behavioral Expressions". This scale measured teacher attitudes toward undesirable student behaviors. Erişen ve Çeliköz (2003) developed a five-factor instrument to measure the perceived degree of competency of teacher candidates about "subject matter", "designing, planning, and administering instruction", "testing and evaluation", "cooperation with others concerned" and "professional development". They called their instrument as "Prospective Teacher Competency Scale".

Many scales have been developed by researchers associated with examining various aspects of teacher behavior. This study was aimed at investigating teachers' characteristics about their interaction with their students, characteristics related to the teaching profession, and humanistic and justice characteristics. These three components of this scale accounted for a total of 39.7% of item variance. The final version of the scale with a total of 36 items has a Cronbach's alpha of .898 which represents an excellent reliability level.

This phase was the first pilot study which was done on the first draft of 69 items of the "Teacher Characteristics Scale". It was prepared with the intension of obtaining three factors. The next phase will be the administration of the scale to a larger sample of teachers. The data collected in this second phase will first be analyzed by using exploratory factor analysis followed by a confirmatory factor analysis for convergent and discriminant validities.

Of course for reliability Cronbach's alpha will be computed. The third phase will be the utility of the scale for finding a solution for a defined problem related to teacher characteristics.

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