

Examination of Grit Levels of Teachers According to Personal Variables

Türkan Argon¹, Ayça Kaya²

¹Prof. Dr., Abant İzzet Baysal University, Faculty of Education, Department of Educational Sciences, Turkey

²PhD Student, Abant İzzet Baysal University, Faculty of Education, Department of Educational Sciences, Turkey

Correspondence: Prof. Dr. Türkan Argon, Abant İzzet Baysal University, Faculty of Education, Department of Educational Sciences, Turkey.

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Abstract

The purpose of this study is to determine whether or not the grit level of teachers varied according to their personal variables. The research, in the descriptive screening model, was conducted on 360 teachers who were chosen according to simple random sampling method and working in primary schools, secondary schools and high schools in Adapazarı district of Sakarya province. In the data collecting phase, "Grit Scale", which is developed by Duckworth and Quinn (2009a) and adapted into Turkish culture by Argon and Kaya (2017), is used. Means, standard deviations and parametric analyzes of individual variables were used in the analysis of the research data. According to the results of the research, grit level of the teachers is at the level of agreeing in the dimension of total scale and consistency of interest while in the dimension of the perseverance of effort is at level of being fully agreeing. Teachers' views of their grit level according to their personal variables revealed a significant difference only in perseverance of effort dimension in terms of sex. Age, vocational seniority, school type, graduation status and branch variables are not influential variables in teacher opinions and teacher opinions are similar. It has emerged that female teachers are more gritty than male teachers in perseverance of effort dimension in which teachers' views differ from one another. Some of the suggestions developed according to the research results are as following: Although the grit levels of teachers are close to high, they are not at the desired level and qualitative studies can be used to determine the factors affecting teachers' wishes and expectations in order to increase this level and fulfil their needs. Since the grit levels of the teachers contribute to the improvement of the performance of the students, with the establishment of the environments where the teachers can use these potentials, with fund allocation for effective use of this qualified human power at the current level in the schools and with creating the conditions for teachers to take part in long-term projects, the motivation of the teachers can be increased. New and different researches can be carried to determine the organizational variables other than the personal variables that may affect the teachers' grit.

Keywords: grit, teacher, personal variables

1. Introduction

The fact that the teaching profession requires intense relation with people and the school environment in which the profession is performed is a stressful profession that is affected by different variables is one of the factors affecting the performance of teachers (Aydın, 2002). The positive or negative performance of the teachers reflects directly or indirectly on the performance of the students in the education process. In order for teachers to positively influence the performance of their students, the continuity of their grit, perseverance and endeavor, as well as the qualifications and characteristics they possess, is also very important. For as much as Madden (2015), who sees teacher grit linked to their effectiveness, expresses that this situation can change thanks to perseverance and diligence. In other words, when perseverance and endeavor increase grit, this situation also increases the performance positively. It is pointed out in the literature that teachers with high beliefs are willing to use more successful methods for their students and perform more strongly and at a high levels (Sparks, 1988). Likewise, Milner (2002) stated that teachers, even though they have just started in the profession, are more determined if they have a sense of competence in classroom management and therefore have demonstrated high performance.

When the reasons for performance-related differences are examined, it can be seen that they vary according to the person (Dobbins, 2016). One of the concepts introduced as one of these reasons is the concept of grit (durability). The concept of grit is defined as being determined and passionate in achieving long-term goals (Duckworth, Peterson,

Matthews and Kelly, 2007). The concept that is used as “grit” in English has the meaning of durability, courage, fortitude, perseverance and determination in Turkish. It can be said that the durability of teachers depends on their determination, enthusiasm and perseverance to achieve long-term goals if the concept is evident from the definition. From the definition of the concept, it can be said that the grit of the teachers depends on their determination, enthusiasm and perseverance to reach long-term goals. For teachers to be able to withstand a long and challenging process to improve their students’ performances depends on their long-lasting perseverance and passion. When the definitions related to teacher’s grit is examined, it can be seen that Bobek (2002) defined teachers' grit as competence that they have in terms of adapting to different conditions and facing adverse conditions. Similarly, Robertson-Kraft and Duckworth (2014) have defined the teaching profession as a very challenging profession and have stressed that teachers must bear up against difficulties to demonstrate their performances. Gritty individuals see success as a marathon and have been working hard for many years to succeed (Roberts, 2009). It is also known that individuals with high endurance are successful, well-off and happy individuals (Eskreis-Winkler, Gross and Duckworth, 2016).

It is seen that the concept of grit is based on Bandura's Social Cognitive Theory (Dobbins, 2016). This theory emphasizes the importance of modeling by observing the behavior and attitudes of others and provides situations allowing students to use or apply these behaviors (Roberts, 2009). Therefore, students make their own cognitive structures by observing teachers through modeling. In this way, they can predict the future and select or modify a range of situations by considering alternative scenarios linked to their own actions (Bandura, 2001, Akt Duckworth, Gendler and Gross, 2016). The mentioned situation in theory can also be related to the teachers' preference for endurance. This is because the capacities of the teachers to endure a job by perseverance and passion show their endurance. On the other hand, it should not be forgotten that the more meaningful aims the individuals have, the more enthusiastic, diligent and hardworking they are. At this point, what is important for the individual is the likelihood of achieving the goal and what that purpose means for him/her. As a matter of fact, at this point the individual asks some questions to himself/herself such as "Can I succeed if I try?" (Aydın, 2017). Individuals who believe that they can succeed in the process and who strive for it are enduring individuals. The success is possible if the individual stands behind the decisions s/he makes with strong will (Duckworth, Peterson, Matthews and Kelly, 2007).

There are many studies about the grit of teachers in the literature (see Duckworth, Quinnb & Seligmana, 2009b; Silvia, Eddington, Beaty, Nusbaum & Kwapil, 2013; Shechtman, DeBarger, Dornsife, Rosier & Yarnall, 2013; Robertson-Kraft & Duckworth, 2014; Atapattu, 2015; Madden, 2015; West, vd., 2015; Eskreis-Winkler, Gross & Duckworth, 2016; Dobbins, 2016) and almost all of these studies emphasize the importance of teacher grit in an occupational sense. That is because durability (Datu, Valdez & King, 2016), which allows individuals to follow goals that require a long time to succeed, is of special importance for the accomplishment of the goals of teachers who have had a difficult time seeing their products in the individuals they grow up. It can be considered that for teachers, who perform a job that requires emotional labor, being attentive, enthusiastic, passionate and persistent in achieving the long-term goals is very important for their performance as well as for their students to improve their performance. In this study, it is aimed to determine whether the grit levels of teachers vary according to various variables and to determine the relation between the consistency of interest and perseverance of effort, which both are the subdimensions of endurance (grit). Based on the purpose of the study, the following questions have been tried to be answered:

1. How is the level of grit of teachers?
2. Does the level of grit of teachers show a significant difference according to independent variables (gender, age, occupational seniority, school type, graduation status and branch)?

2. Method

The research was designed with a descriptive scanning model. The purpose of the descriptive research is to depict or picture the state and the condition of a phenomenon or situation accurately. The goal is not to focus on the cause-and-effect relationship, but rather to describe the variables that exist in a given situation, and on some occasions to describe the relationships between these variables (Johnson and Christensen, 2014). In addition, the events, persons or objects that are the subject of research in descriptive researches are defined in the conditions they are in and they are not in any way tried to be changed (Karasar, 2012).

2.1 Population – Sample

The study's population compose of 3227 teachers in primary, secondary and high school in the Adapazarı district of Sakarya province in the academic year of 2016-2017. In the study, disproportionate cluster sampling technique is used in determining the sample to represent the population. It is calculated that 341 persons is adequate considering the 95% confidence level and the 5% error margin in determining the sample size (Krejcie and Morgan, 1970). From the applied data collection tools, it is seen that 360 persons is available and according to this result, the data obtained are analyzed. In this respect, when the personal characteristics of the teachers participating in the research are examined; it is seen

that 54,4% of them are female and 45,6% are male; 37,8% of them are in primary school, 31,4% are in secondary school and 30,8% are in high school. 61.1% of the teachers have a bachelor's degree; 38.9% have graduate education; 51.1% of them work in the sciences and 48.9% work in social sciences. In addition, 26.7% of the teachers are between 21-30 age range, 36.7% are 31-40, 21.9% are 41-50, and 14.7% are in the age range over 51. When it comes to professional seniority 20.3% of them have 1-5 years of experience, 19.7% for 6-10 years, 19.7% for 11-15 years, 18.3% for 16-20 years, 21.9% for more than 21 years.

2.2 Data Collection Tool and Collection of Data

In the research, the personal information form and Grit Scale were used as data collection tools. The personal information form includes questions about teachers' gender, age, professional (occupational) seniority, school type, graduation status and branches. The Grit Scale, which is used to determine the durability of teachers, was developed by Duckworth and Quinn (2009a) and adapted to Turkish culture by Argon and Kaya (2017). This scale consists of a total of 8 items and is a 5-point Likert-type scale that is evaluated from "I strongly disagree" to "I strongly agree". The original scale consists of two sub-dimensions, the consistency of interest and perseverance of effort, and the load factors vary between .37 and .80. The items in the consistency of interest subscale are scored inversely. The Cronbach alpha coefficient, which is the internal consistency coefficient of the scale, is .85 for the total scale, .78 for the perseverance of effort subscale, and .85 for the consistency of interest subscale. A linguistic equivalent form study was done with back translation of the scale. Adapted to Turkish culture by Argon and Kaya (2017) A linguistic equivalent form study is done with back translation of the scale which is adapted to Turkish culture by Argon and Kaya (2017). CFA (Confirmatory Factor Analysis) and EFA (Explanatory Factor Analysis) were used for construct validity. The Cronbach alpha coefficient is calculated as .74 for the total scale, .72 for the perseverance of effort sub-dimension, .74 for the consistency of interest sub-dimension, and item-total correlation coefficients are calculated to vary between .33 and .64. As a result of the adaptation study, it is stated that with the 8 total items, the scale is reliable and valid measurement tool to show load factor value in 2 dimension. In this study, the Cronbach alpha coefficient, which is the internal consistency coefficient of the scale, was recalculated and found as .76 in the total scale, .75 in the consistency of interest sub-dimension, and .70 in the perseverance of effort sub-dimension. Within the scope of the research, legal permissions have been obtained from the necessary units for the implementation of the scale. The implementation is completely planned on the voluntary basis. The implementation of the scale is carried out in June, The scale forms are taken schools and then collected back by researchers themselves so that they could contribute effectively to the purpose of the research.

2.3 Analysis of Data

In the analysis of the research data, the mean and standard deviation were used to determine the grit levels of the teachers, and the frequency and percentage for the personal variables. The distribution of research data was examined by taking into account the skewness and kurtosis values. If the coefficients of skewness and kurtosis are between -1.96 and +1.96, it is accepted that the data show normal distribution (Kim, 2013). In this study, skewness was found as -.469 and kurtosis was found as +.209 and parametric tests were applied assuming distribution of the data was normal. In this context, t-test and one-way analysis of variance (ANOVA) were performed to determine whether there is a significant difference between opinions according to personal variables. The level of significance in the study is accepted as .05. In the scoring of the data for the data collection tool used to determine the grit levels of teachers working in primary school, secondary school and high school which constitute the sample of the research; 1,00-1,79 (I strongly disagree), 1,80-2,59 (I disagree), 2,60-3,39 (I am undecided), 3,40-4,19 (I agree) and 4,20-5,00 (I strongly agree) ranges are used.

3. Findings

Results of the analyzes of the data obtained from the teachers are presented in the tables.

Table 1. Descriptive Analysis Results of Teachers' Perspectives on Grit

Scale	Sub-dimensions	N	\bar{X}	SS
Grit	Consistency of Interest	360	3,42	0,96
	Perseverance of Effort	360	4,28	0,75
	Total	360	3,85	0,85

When Table 1 is examined, it is seen that with the level of "I strongly agree (= 4.28)", the highest average among teachers' views on grit is the perseverance of effort dimension; the lowest average dimension is the consistency of interest with the level of "I agree (= 3.42)." Teachers' views towards the total scale is at the level of "I agree (= 3.85)." According to these findings, it can be said that the levels of grit of the teachers is high although it is not the highest.

3.1 Findings Related to Grit Levels According to Teachers' Personal Variables

Findings of the analyzes to determine whether teachers' perceptions of grit differ significantly from their personal variables are presented below as tables.

The t-test result for the **sex** variable is shown in Table 2.

Table 2. Results of The T-test Analysis of Grit Levels Based on Teachers' Genders

Scale	Dimension	Sex	N	\bar{X}	df	SS	t	p
Grit	Consistency of Interest	Female	196	3,43	358	0,71	0,23	0,81
		Male	164	3,41		0,75		
	Perseverance of Effort	Female	196	4,37	35	0,49	3,61	0,00*
		Male	164	4,16	8	0,59		
	Total	Female	196	3,90	35	0,49	2,01	0,44
		Male	164	3,79	8	0,57		

* p < .05

In Table 2, while there was no significant difference in the consistency of interest sub-dimension regarding the teachers' views on grit based on their genders [$t(358) = 0,23$ $p > 0,05$] and in the total scale [$t(358) = 2,01$ $p > 0,05$], in perseverance of effort sub-dimension significant difference [$t(358) = 3,61$, $p < 0,05$] can be seen. In perseverance of effort dimension where significant difference is observed, it is seen that female teachers' (= 4,37) views on grit is higher than male teachers (= 4,16).

The ANOVA analysis of the age variable is shown in Table 3.

Table 3. One-Way ANOVA Test Results Regarding Teachers' Grit Levels According to Their Age

Scale	Dimension	Age	N	\bar{X}	df	SS	F	p
Grit	Consistency of Interest	21-30	96	3,33	3	0,68	0,80	0,49
		31-40	132	3,45		0,74		
		41-50	79	3,43		0,79		
		51 & over	53	3,51		0,70		
	Perseverance of Effort	21-30	96	4,17	3	0,57	2,28	0,79
		31-40	132	4,34		0,47		
		41-50	79	4,33		0,59		
		51 & over	53	4,22		0,61		
	Total	21-30	96	3,75	3	0,52	1,53	0,20
		31-40	132	3,90		0,48		
		41-50	79	3,88		0,59		
		51 & over	53	3,87		0,55		

*p < .05

In Table 3, it is seen that teachers' views on grit levels according to their age do not show significant difference neither in consistency of interest [$F(3,356) = 0,80$, $p > 0,05$] and perseverance of effort [$F(3,356) = 2,28$, $p > 0,05$] dimensions nor in total scale [$F(3,356) = 1,53$, $p > 0,05$]. According to this finding, it can be said that age variable is not an effective variable in affecting teachers' opinions.

The ANOVA analysis of the Professional (Occupational) Seniority variable is shown in Table 4.

Table 4. One-Way ANOVA Test Results Regarding Teachers' Grit Levels According to Professional Seniority

Scale	Dimension	Professional Seniority	N	\bar{X}	df	SS	F	p
Grit	Consistency of Interest	1-5 years	73	3,34	4	0,67	0,51	0,72
		6-10 years	71	3,38		0,74		
		11-15 years	71	3,49		0,72		
		16-20 years	66	3,43		0,84		
		21 years & over	79	3,47		0,70		
	Perseverance of Effort	1-5 years	73	4,16	4	0,54	1,45	0,21
		6-10 years	71	4,24		0,53		
		11-15 years	71	4,36		0,49		
		16-20 years	66	4,31		0,61		
		21 years & over	79	4,31		0,56		
	Total	1-5 years	96	3,75	4	0,50	1,23	0,29
		6-10 years	132	3,81		0,51		
		11-15 years	79	3,92		0,50		
		16-20 years	53	3,87		0,61		
		21 years & over		3,89		0,51		

* $p < .05$

When Table 4 is examined, it can be seen that the teachers' perspectives on the grit level according to professional seniority variable do not show significant difference neither in consistency of interest [$F(4,355) = 0,51, p > 0.05$] and in perseverance of effort [$F(4,355) = 1,45, p > 0.05$] dimensions nor in total scale [$F(4,355) = 1,23, p > 0.05$]. According to this finding, it can be said that the professional seniority variable is not an effective variable in teacher opinions.

The ANOVA analysis of the school type variable is shown in Table 5.

Table 5. One-Way ANOVA Test Results on Teachers' Grit Levels According to School Type

Scale	Dimension	School Type	N	\bar{X}	df	SS	F	p
Grit	Consistency of Interest	Primary	136	3,42	2	0,71	0,46	0,63
		Secondary	113	3,38		0,76		
		High School	111	3,47		0,73		
	Perseverance of Effort	Primary	136	4,28	2	0,54	0,16	0,85
		Secondary	113	4,30		0,55		
		High School	111	4,25		0,57		
	Total	Primary	136	3,85	2	0,49	0,06	0,93
		Secondary	113	3,84		0,55		
		High School	111	3,86		0,55		

* $p < .05$

When Table 5 is examined, it can be seen that the teachers' perspectives on the grit levels according to school type variable do not show significant difference neither in consistency of interest [$F(2,357) = 0,46, p > 0.05$] and in perseverance of effort [$F(2,357) = 0,16, p > 0.05$] dimensions nor in total scale [$F(2,357) = 1,23, p > 0.05$]. According to this finding, it can be said that the school type variable is not an effective variable in teacher opinions.

The result of the T-test on the graduation status variable is shown in Table 6.

Table 6. T-Test Analysis Results of Teachers' Grit Levels According to Graduation Status

Scale	Dimension	Status	N	\bar{X}	df	SS	t	p
Grit	Consistency of Interest	Bachelor's	220	3,37	358	0,70	-1,60	0,10
		Graduate	140	3,50		0,78		
	Perseverance of Effort	Bachelor's	220	4,24	358	0,55	1,44	0,15
		Graduate	140	4,33		0,54		
	Total	Bachelor's	220	3,81	358	0,52	0,79	0,06
		Graduate	140	3,92		0,53		

* $p < .05$

When Table 6 is examined, it can be seen that the teachers' perspectives on the grit levels according to graduation status variable do not show significant difference neither in consistency of interest [$t(358) = -1,60, p > 0.05$] and in perseverance of effort [$t(358) = -1,44, p > 0.05$] dimensions nor in total scale [$t(358) = 0,79, p > 0.05$]. According to this finding, it can be

said that the graduation status variable is not an effective variable in teacher opinions.

The T-test result for the branch variable is shown in Table 7.

Table 7. T-test Analysis Results of Teachers' Grit Levels According to Their Branches

Scale	Dimension	Branch	N	X	df	SS	t	p
Grit	Consistency of Interest	Social Sci.	176	3,41	358	0,79	-0,46	0,64
		Sciences	184	3,44		0,67		
	Persistence in Effort	Social Sci.	176	4,28	358	0,55	0,23	0,81
		Sciences	184	4,27		0,55		
	Total	Social Sci.	176	3,84	358	0,55	-0,20	0,84
		Sciences	184	3,86		0,51		

*p < .05

When Table 7 is examined, it can be seen that the teachers' perspectives on the grit levels according to their branches variable do not show significant difference neither in consistency of interest [$t(358) = -0,46$ $p > 0,05$] and in perseverance of effort [$t(358) = 0,23$ $p > 0,05$] dimensions nor in total scale [$t(358) = -0,20$ $p > 0,05$]. According to this finding, it can be said that the branch variable is not an effective variable in teacher opinions.

4. Results, Conclusions and Recommendations

According to the research, teachers' opinions about grit are; I strongly agree in dimension of perseverance of effort and I agree in dimension of the consistency of interest and on the total scale. These results show that the level of the teachers' grit is high but not the highest; besides shows that the grit levels in the persistence in effort of dimension are higher than those of consistency of interest and total scale. It can be said that this result is positive in terms of teachers and their profession. Schools, which are open and communal systems, and their employees are directly or indirectly influenced by many internal and external variables both positively and negatively; this affects both the feelings and the behaviors of employees. In the grit to be shown against the events and situations experienced personally, effort and labor are required and this situation can affect the individuals negatively as well as positively. Yet, no matter how high qualifications the teachers have, their psychological state and grit will be influent in many situations ranging from their motivation to their performance. The high level of grit not only will ensure that the performance, health and mood of teachers remain positive in schools where stressful environments exist and human relationships are intensively experienced (Maddi, 1998), but also will help them to be unaffected or to be less affected by the negativity and negative results and help them to struggle against their individual failures. Taking into consideration the behaviors expected to be taught students by the education process, it will contribute to the teachers showing more diligent, determined and strong attitudes to reach the long term goals. Indeed, individuals with higher grit are more committed to their goals (Hill, Burrow and Bronk, 2014). If grit is considered as a process (Yılmaz Irmak, 2007), the grit of teachers will be reflected positively in the process of classroom education. Also when it is considered what makes teachers more strong and gritty, it can be seen that these characteristics are trust, self-efficacy, optimism, extroversion, hope and psychological endurance (Eryılmaz, 2013), which are also sought in terms of teacher competencies. The high quality of the teachers will strengthen the teaching processes in the classroom and make them more effective. Many studies addressing grit as psychological endurance emphasize many positive contributions of it in both individual and institutional sense. In these studies, employees with higher psychological well-being were found to be more successful and more effective (Madden, Harvey, Khoshaba, Lu, Persico & Brow, 2006) with less anxiety and higher self-esteem (Canton, Neil and Evans, 2013) and it has been stated that they have contributed positively to the achievement of institutional goals by using unexpected changes as an opportunity for improvement (Sezgin, 2012) and having lower sense of burnout (Chan, 2003; Nartgün and Mor, 2015). Teachers with high levels of endurance can last long in their profession by focusing on a job or work they have started and thus they will be able to continue their enthusiasm for their profession. This is supported by the finding of Robertson and Duckworth (2014) that teachers with high resilience have less preference for dropping their classes during the school year than low ones. In other words, teachers with a high level of grit will experience less emotions such as departure from their profession and even if they experience these emotions, they will overcome them. This will also contribute to the involvement of teachers who love their profession and who show their strength.

Research shows that teachers have a higher level of grit in perseverance of effort dimension. It can be said that this result obtained is a positive result in terms of teachers. This is because perseverance of effort dimension is related to the grit more than the consistency of interest (Datu, Valdez and King, 2016), and it is necessary to make an effort to continue the interest. This relationship between interest and effort has been addressed by Adler (2002) as a social interest and Adler stated that this relationship is the individual's identification with the whole society, from the self, to the whole, and endeavor and struggle to keep this whole. In this case, it can be said that the teachers' perseverance of effort is little more important and necessary in order to ensure their consistency of interest. This is because there is a

positive relationship between the perseverance of effort and the consistency of interest, and between these two and general endurance (Duckworth and Quinn, 2009a). This situation is also important for the positive influence of the teachers in the development of the school environment. This is because, when individuals see that others are successful with their efforts, they will also begin to believe that if they work hard enough, they can also succeed (Bandura, 2004). If teachers who are responsible for the development of schools and the success of their students are gritty in the first hand, this will contribute positively to them to be open to new ideas and projects to increase the performance of schools and students, to overcome obstacles without giving up, to focus on their work for a long time without losing their interests, to finish the work they have started and to make efforts to achieve the goals they set.

Teachers' opinions on their level of grit according to their personal variables revealed a significant difference only in the dimension perseverance of effort in sex variable. Age, professional seniority, school type, graduation status and branch variables were found to be similar to each other. It can be seen that female teachers are more gritty than male teachers in dimension of perseverance of effort in which teacher opinions are different from each other. This result can be interpreted as that female teachers are more enthusiastic, determined, undeterred about long-term goals than the male teachers. This is because the individuals have more desire for the goals they are striving for (Von Culin, Tsukayama and Duckworth, 2014). It is thought that the main reason for this result is the difference in the role of women and men in Turkish society. Men feel more strongly about themselves because of certain qualities given to them and they refrain from help in solving their problems in the work environment. This situation may cause them to decrease their efforts while increasing their responsibilities over time and reducing their psychological endurance (Ülker Tümlü and Reçepoğlu, 2013). It is also a known fact that in Turkey, a male-dominated society, women need to make more efforts to be able to take place in the work environment and to demonstrate their success. This result, which is not mentioned directly in the literature, is similar to the findings of Bozgeyikli and Şat (2014) on teachers and findings of Ülker Tümlü and Reçepoğlu's (2013) works on academicians. However, there are studies in the literature which show that gender has no effect on psychological endurance. Nartgün and Mor (2015), Sezgin (2012), Sezgin (2009) and Chan's (2003) studies may be example for these studies.

Teachers' opinions for their level of grit are similar according to age, professional seniority, school type, graduation status and branch variables. This result indicates that teachers' ages, being in the beginning or end of their profession, having graduated from a bachelor's or post graduate degree, working in primary, secondary or high school or working in social sciences or sciences branches are not effective in their stance on their grit. This result can be interpreted that teachers have the same level of grit in their determination and passion in achieving long-term goals, whichever qualities they have as a personal variable. In other words, teachers show similar perspectives in achieving goals, independent of these variables, and they are linked to their goals. However, it was expected that with the increase in age, professional seniority and the level of education, it would be easier to cope with the problems experienced by increasing the knowledge, skills and experiences gained in the profession. The reasons for the similarity of opinions are seen as the similarities of schools, environments and administrations in the Turkish education system, similar trainings of teachers, similar practices in school and classroom activities. As a matter of fact, the results of Nartgün and Mor (2015), Sezgin (2012) and Sezgin (2009) studies, which are conducted in the Turkish education system, are similar to the results of this research in terms of branch, age and professional seniority.

The suggestions developed in the light of the results obtained in the research are as follows: The level of grit of the teachers is not at the desired level although it is high. Qualitative studies can be used to determine the factors that affect teachers' expectations in order to increase this level. Since the durability levels of the teachers contribute to the improvement of the performance of the students, it can be ensured to establish the environments where they can use these potentials, to make the resources for the effective use of this qualified human power existing at the current level and to increase the motivation by creating the conditions for the teachers to take place in the long-term projects. New and different researches can be carried out to determine the organizational variables other than the personal variables that may affect the teacher grit. In this context, more comprehensive studies can be made by associating with organizational behavior concepts such as motivation, happiness, stress, job satisfaction that teacher durability may be related to. As a result of the fact that the female teachers are more gritty in the perseverance of effort dimension, the qualitative studies can be designed to determine both the causes of this situation and why the men try lesser than the women. Moreover, this research is limited to teachers; by providing participant diversity, researches for grit can be designed for administrators and students.

References:

- Adler, A. (2002). *Superiority and social interest*, Tr: B. Çorakçı. Istanbul: Say Pub.
- Argon, T., & Kaya, A. (2017). Adaptation of Grit Scale into Turkish: A Study of Validity and Reliability. 26. *International Conference on Educational Sciences* 20-21-22-23 April 2017, Side Antalya.

- http://www.ices-uebk.org/dosyalar/files/ices2017ozetkitabi_v1.pdf (Oral Presentation)
- Atapattu, R. (2015). *Grit and engagement as mediators of the relation between academic support and literacy achievement in ethnic minority elementary school students*. Doctoral dissertation. Retrieved from: http://drum.lib.umd.edu/bitstream/handle/1903/17400/Atapattu_umd_0117N_16826.pdf?sequence=1&isAllowed=y on 18.06.2017
- Aydın, İ. P. (2002). *Stress in business life*. Ankara: Pegem Publishing.
- Aydın, M. (2017). *Albert Bandura'nın sosyal öğrenme kuramı ve eğitime yansımaları*. Retrieved from: <http://www.meralaydin.com.tr/albert-banduranin-sosyal-ogrenme-kurami-ve-egitime-yansimalari>
- Bandura, A. (2004). Swimming against the mainstream: The early years from chilly tributary to transformative mainstream. *Behavior Research and Therapy*, 42, 613-630. <https://doi.org/10.1016/j.brat.2004.02.001>
- Bobek, B. L. (2002). Teacher resiliency: A key to career longevity. *Clearing House*, 75(4), 202–205. <https://doi.org/10.1080/00098650209604932>
- Bozgeyikli, H., & Şat, A. (2015). Examination of psychological endurance and organizational citizenship behaviors in terms of some variables in the teachers: Private school sample. *HAK-İŞ International Labor and Society Magazine*, 3(3), 172-191.
- Chan, D. W. (2003). Hardiness and its role in the stress-burnout relationship among prospective Chinese teachers in Hong Kong. *Teaching and Teacher Education*, 19, 381-395. [https://doi.org/10.1016/S0742-051X\(03\)00023-4](https://doi.org/10.1016/S0742-051X(03)00023-4)
- Datu, J. A. D., Valdez, J. P. M., & King, R. B. (2016). Perseverance counts but consistency does not! Validating the short grit scale in a collectivist setting. *Current Psychology*, 35(1), 121-130. <https://doi.org/10.1007/s12144-015-9374-2>
- Dobbins, D. (2016). *Teacher effectiveness: Examining the relationship between teacher grit and teacher self-efficacy*. Doctoral dissertation, Oklahoma State University. Retrieved from: <http://search.proquest.com/docview/1826023722> on 14.12.2016
- Duckworth, A. L., & Quinn, P. D. (2009a). Development and validation of the short grit scale (Grit-S). *Journal of Personality Assessment*, 91(2), 166-174. <https://doi.org/10.1080/00223890802634290>
- Duckworth, A. L., Gendler, T. S., & Gross, J. J. (2016). Situational strategies for self-control. Perspectives on *Psychological Science*, 11(1), 35-55. <https://doi.org/10.1177/1745691615623247>
- Duckworth, A. L., Peterson, C., Matthews, M. D., & Kelly, D. R. (2007). Grit: perseverance and passion for long-term goals. *Journal of personality and social psychology*, 92(6), 1087. <https://doi.org/10.1037/0022-3514.92.6.1087>
- Duckworth, A. L., Quinn, P. D., & Seligman, M. E. P. (2009b). Positive predictors of teacher effectiveness. The *Journal of Positive Psychology*, 4(6), 540-547. <https://doi.org/10.1080/17439760903157232>
- Eryılmaz, A. (2013). Using of positive psychology on psychological counseling and guidance context on character strength and preventive services. *The Journal of Happiness & Wellbeing*, 1(1), 1-19.
- Eskreis-Winkler, L., Gross, J. J., & Duckworth, A. L. (2016). *Grit: Sustained self-regulation in the service of superordinate goals*. *Handbook of self-regulation: Research, theory and applications*. New York, NY: Guilford.
- Hanton, S., Neil, R., & Evans, L. (2013). Hardiness and anxiety interpretation: An investigation into coping usage and effectiveness. *European Journal of Sport Science*, 13(1), 96-104. <https://doi.org/10.1080/17461391.2011.635810>
- Hill, P. L., Burrow, A. L., & Bronk, K. C. (2016). Persevering with positivity and purpose: An examination of purpose commitment and positive affect as predictors of grit. *Journal of Happiness Studies*, 17(1), 257-269. <https://doi.org/10.1007/s10902-014-9593-5>
- Johnson, B., & Christensen, L. (2014). *Educational Research: Quantitative, Qualitative, and Mixed Approaches (Tr & ed: S. B. Demir)*. Ankara: Eğiten Kitap.
- Karasar, N. (2012). *Scientific research method: concepts, principles, techniques*. Ankara: Nobel Publishing
- Kim, H. Y. (2013). Statistical notes for clinical researchers: assessing normal distribution using skewness and kurtosis. *Restorative Dentistry & Endodontics*, 38(1), 52–54. <https://doi.org/10.5395/rde.2013.38.1.52>
- Krejcie, R. V., & Morgan, D. W. (1970). Table for determining sample size from a given population. *Educational and Psychological Measurement*, 30(3), 607-610. <https://doi.org/10.1177/001316447003000308>
- Madden, J. H. (2015). *Relationships of principal grit, teacher trust in the principal, and faculty organizational commitment in Alabama public high schools*. Doctoral dissertation, The University of Alabama Tuscaloosa.

- Maddi, S. R. (1998). Dispositional hardiness in health and effectiveness. In H. S. Friedman (Ed.). *Encyclopedia of Mental Health*. San Diego, CA: Academic Press.
- Maddi, S. R., Harvey, R. H., Khoshaba, D. M., Lu, J. L., Persico, M., & Brow, M. (2006). The personality construct of hardiness, III: Relationships with repression, innovativeness, authoritarianism, and performance. *Journal of Personality*, 74, 575–598. <https://doi.org/10.1111/j.1467-6494.2006.00385.x>
- Milner, H. R. (2002). A case study of an experienced English teacher's self- efficacy and persistence through 'crisis' situations: theoretical and practical considerations. *High School Journal*, Oct/Nov 2002, 86(1). <https://doi.org/10.1353/hsj.2002.0020>
- Nartgün, S. Ş., & Mor, K. D. (2015). The ethical leadership and psychological endurance relationship according to the teachers) *AIBU Social Sciences Institute Magazine*, 15(2), 269-290.
- Roberts, Y. (2009). *Grit: The skills for success and how they are grown*. Young foundation.
- Robertson-Kraft, C., & Duckworth, A. L. (2014). True grit: Trait-level perseverance and passion for long-term goals predicts effectiveness and retention among novice teachers. *Teachers College record (1970)*, 116(3), 1-27.
- Sezgin, F. (2012). Examination of psychological endurance levels of primary school teachers. *Kastamonu Education Magazine*, 20(2), 489-502.
- Shechtman, N., DeBarger, A., Dornsife, C., Rosier, S., & Yarnall, L. (2013). *Promoting grit, tenacity, and perseverance: critical factors for success in the 21st century*. US Department of Education Office of Educational Technology, Draft Report prepared by the Centre for Technology in Learning.
- Silvia, P. J., Eddington, K. M., Beaty, R. E., Nusbaum, E. C., & Kwapil, T. R. (2013). Gritty people try harder: Grit and effort-related cardiac autonomic activity during an active coping challenge. *International Journal of Psychophysiology*, 88(2), 200-205. <https://doi.org/10.1016/j.ijpsycho.2013.04.007>
- Sparks, G. M. (1988). Teachers' attitudes toward change and subsequent improvements in classroom teaching. *Journal of Educational Psychology*, 80(1), 111. <https://doi.org/10.1037/0022-0663.80.1.111>
- Ülker Tümlü, G., & Receptoğlu, E. (2013). The relationship between psychological endurance and life satisfaction of university academic staff. *Higher Education and Science Magazine*, 3(3), 205-213.
- Von Culin, K. R., Tsukayama, E., & Duckworth, A. L. (2014). Unpacking grit: Motivational correlates of perseverance and passion for long-term goals. *The Journal of Positive Psychology*, 9(4), 306-312. <https://doi.org/10.1080/17439760.2014.898320>
- West, M. R., Kraft, M. A., Finn, A. S., Martin, R. E., Duckworth, A. L., Gabrieli, C. F., & Gabrieli, J. D. (2015). Promise and paradox measuring students' non-cognitive skills and the impact of schooling. *Educational Evaluation and Policy Analysis*, 0162373715597298.
- Yılmaz, I. T. (2007). A review of grit. *I. Psychology Graduate Students Congress*, 21-24 June, İzmir Economy University, Bildiri Metinleri Kitabı, 10-17.

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