

## The Relationship between Teachers' Attitudes toward Measurement and Evaluation and their Perceptions of Professional Well-Being†

Kamil YILDIRIM\*  
Gökhan ARASTAMAN\*\*  
Elif DASCİ\*\*\*

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### Abstract

*Problem Statement:* The quality of teaching at schools mostly depends on the teachers' competencies. One of these competencies is measurement and evaluation (MaE). Evaluation of the students' cognitive, affective, and psychomotor development requires skills and knowledge about various measuring tools and techniques. It is essential for a teacher to have a good command of the concepts in MaE, certain skills, and positive attitudes. In this way, teachers can evaluate and develop their own teaching methods and reach fewer value judgments, and consequently, they can have better professional perceptions of themselves. Therefore, this study anticipates the existence of a relationship between teachers' attitude on MaE and perception of professional well-being (PWB).

*Purpose of the Study:* The aim of the study is to examine the relationship between teachers' attitudes toward measurement and evaluation and their perceptions of professional well-being (PWB) in the branch teachers working at public elementary and secondary schools.

*Method:* The present study is a relational study with a descriptive pattern aimed to describe the relationship between teachers' attitudes toward MaE and their perceptions of PWB. The Scale of Teacher Perception of PWB and the Scale of Teacher Attitude toward Measurement-Evaluation were used as data collection tools. Data was collected from 301 branch teachers teaching at public elementary and secondary schools in Aksaray Province

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\* Assist. Prof. Dr. Aksaray University, [kamilyildirim1@gmail.com](mailto:kamilyildirim1@gmail.com)

\*\* Corresponding author: Assist. Prof. Dr. Hacettepe University, [gokhanarastaman@gmail.com](mailto:gokhanarastaman@gmail.com)

\*\*\* Research Assist. Aksaray University, [elifdasci89@gmail.com](mailto:elifdasci89@gmail.com)

between March and May of 2014. Data was analyzed using descriptive statistics and multiple linear regression analysis.

*Findings and Results:* The results of the study revealed that teachers had positive attitudes toward MaE and perceptions of PWB. A significant positive relationship was found between the teachers' attitudes toward MaE and their perceptions of PWB. Attitude toward MaE was identified as a significant predictor of perception of PWB.

*Conclusions and Recommendations:* In the present study, a significant positive relationship that may be considered strong was found between the teachers' attitudes toward measurement-evaluation and their perceptions of PWB. The fact that the attitude developed by teachers toward MaE has a relatively strong effect on their perception of PWB indicates the place of MaE in their professional lives. It may be concluded that as the teachers' attitudes toward MaE improves they may feel better professionally.

*Keywords:* "Professional Well-Being" "Measurement" "Evaluation" "Attitude" "Secondary research"

## Introduction

The quality of teaching at schools mostly depends on teachers' competencies. One of these competencies is measurement and evaluation (MaE). Evaluation of the students' cognitive, affective, and psychomotor development requires possession of skills and knowledge about various measuring tools and techniques (Dylan, 2010; Gunes, 2007; Kilmen & Demirtasli, 2009). Each stage of teachers' training process requires MaE in monitoring the students' development levels and accordingly adapting of their educational level. MaE, which is an important part of teachers' competency, serves a crucial role for the school system, the teacher, the learner, the parent, and the administrator for the improvement of instruction. The quality of an education system depends on how qualified and educated its teachers are. Teachers should have the ability to measure and evaluate students' needs in order to be successful (Gencil and Ozbasi, 2013). It is essential for a teacher to have a good command of the concepts in MaE, certain skills, and positive attitudes (Leavitt, 2012; MoE, 2008; MoE, 2009; Ozelik, 2011; Turgut & Baykul, 2010; Zhang & Burry-Stock, 2003). Thus, they can evaluate and develop their own teaching methods and reach fewer value judgments (Karaca, 2004). As a result, they might have a better professional perception of themselves.

A majority of the changes in course curriculum that were made in 2005 and subsequent years in Turkey were related to MaE. The change and the accompanying practices have prompted teachers to develop their knowledge and skills in MaE. "General Competencies for Teaching Profession," published in 2008, also established the extent to which teachers must be competent in MaE, and the number and time of in-service training sessions regarding MaE began to increase (MEB, 2008). It became far more important to determine student success during the process pursuant to the

Transitioning from Primary Education to Secondary Education (TEOG), and Nationally Centralized Testing practices have imposed an additional responsibility on teachers within the frame of MaE.

Developments in educational MaE tend to increasingly influence teachers' professional lives. These developments and the accompanying changes lead to positive and negative experiences for teachers. Teacher experiences in MaE are reflected by their attitudes toward MaE and their professional perceptions. According to Tavşancıl (2010), attitudes are cognitive, affective, and behavioral elements that form through experiences and, as a result of a learning process, tend to continue for a certain time and may lead to positive or negative behavior. Due to this relationship between attitudes and behavior, the underlying attitudes for an expected behavior must be understood and changed to be positive. Teachers' professional experiences cause them to develop attitudes that are potentially reflected in their professional preferences and practices. Implementations in MaE that make up significant portions of their professional lives cause them to develop attitudes toward the matter (Caliskan & Yazıcı, 2013; Erdogdu, 2010; Ozan & Kose, 2013; Yasar, 2014). Professional experiences determine teachers' professional well-being (PWB), and their attitudes toward MaE must therefore be correlated with their PWB. This is because MaE experiences are an integral part of teaching activities as a whole. The quality and results of teaching activities are important factors for teachers to feel professionally well (OECD, 2009). The perception of PWB can be described as the perception of an individual of possessing the qualifications needed to perform the work requirements of a profession (Aelterman, Engels, Van Petegem & Verhaeghe, 2007).

Perception of PWB is a positive affect and therefore contains dimensions such as self-efficacy, job satisfaction, professional enthusiasm, recognition, and appreciation (Aelterman et al., 2007; Butt & Retallick, 2002; Yildirim, 2015). Perception of PWB is defined based on evaluation of past and present experiences and attainments, and therefore serves as an indicator of teachers' future professional performance. Due to this function, PWB attracts the attention of school administrators and political decision-makers in the field of educational management (OECD, 2009).

The relationship between teachers' attitudes toward MaE and their perceptions of PWB has not been theoretically tested. Accordingly, this study is expected to fill the gap and can return useful findings in both professional development activities and MaE activities. The aim of the present study is to examine the relationship between teachers' attitudes toward MaE and their perceptions of PWB in the branch teachers working at public elementary and secondary schools in Aksaray Province. The sub-aims of the study are determined as follows:

- 1- What are teachers' attitudes toward measurement and evaluation?
- 2- What are teachers' perceptions of their professional well-being?
- 3- What is the relationship between teachers' attitudes toward MaE and their perceptions of professional well-being?

## Method

### Research Design

The present study is a relational study using a descriptive pattern to describe the relationship between the teachers' attitudes toward MaE and their perceptions of PWB. A relational study aims to describe the degree of relationship between two or more variables (Cresswell, 2005, p. 343). Although previous studies have examined MaE and PWB separately, no research thus far has examined the relationship among them. The present study is secondary research, which involves using previously gathered data from other studies (Cothari, 2004; Fraenkel, Wallen and Hyun, 2012).

### Research Sample

Participants consisted of teachers from different branches working at public elementary and secondary schools in Aksaray province, sub-provinces, and towns in the spring of 2014. The multi-stage sampling method was adopted to identify the participants. First, each of five education districts in Aksaray province was considered as an individual layer, and afterwards, branch teachers were selected from the schools by a simple random sampling method (Balci, 2011). A total of 301 teachers were included (147 male and 152 female). Concerning professional seniority, 13.3% of the teachers were in their first five years of service, and 65% thereof had between six to fifteen years of service. As the participants are concentrated particularly in the range of 6 to 15 years, they are mostly young and middle-aged teachers.

**Table 1.**

#### *Demographic Breakdown of the Participants*

Gender	Female	Male						Total
f	152	147	-	-	-	-	-	301
%	51	49	-	-	-	-	-	100
Branch	Turkish	Math	Science	English	Social	Religious	Other	Total
f	57	54	56	47	25	35	26	301
%	18.9	17.9	18.3	15.6	8.30	11.6	8.0	100
Experience	1-5	6-10	11-15	16-20	21+			Total
(in years) f	40	71	125	65	-	-	-	301
%	13.3	23.6	41.5	21.6	-	-	-	100

### Research Instruments and Procedure

"The scale of teachers' attitudes toward measurement and evaluation" and "The scale of teachers' perceptions of professional well-being" were administered together in the same questionnaire. The questionnaires, which take 20 to 25 minutes to complete, were administered in the school settings for the same participants simultaneously.

### *The Scale of Teacher Attitude toward Measurement-Evaluation:*

The scale of teachers' attitudes toward measurement-evaluation was developed by Arastaman, Yildirim and Dasci (2015). Attitude toward MaE is defined in three dimensions, cognitive, affective, and behavioral, based on responses to a number of statements/items (Tavsancil, 2010). The scope of the measurement-evaluation area was determined to comprise five subheadings. They are as follows: *i*) basic concepts of measurement, *ii*) measuring tools (qualities, development, and application), *iii*) statistical-mathematical operations, *iv*) scoring, and *v*) use of measurement results (feedback - development). "Teacher attitude toward MaE" was identified through likert-type items based on the participants' statements. To increase the sensitivity of the scale, participants were asked to select between the most negative (1: Does not represent me at all) and the most positive (7: definitely represents me) in the equally-spaced scale. Thus, the attitude scores of teachers regarding MaE are calculated according to the score from each item. The Cronbach's Alpha reliability coefficient calculated for the entire scale is .94. The inter-reliability coefficients between the four sub-dimensions were .90 for the measuring tool preparation, .89 for the application, .83 for the familiarity with the basic concepts, and .82 for the alternative measuring tools. The item-total correlation in all items of the scale varies between .44 and .73. The data suitability was checked for the exploratory factor analysis, the Kaiser-Meyer-Olkin (KMO) value was found to be .92, and the Bartlett's global test result was found to be significant ( $p = .00$ ). Items were seen to gather around four factors. Factor loadings vary between .50 and .82. The scale explains 66% of the total variance. As a result of the confirmatory factor analysis, the scale's fit indices were found to be  $\chi^2 /sd = 1.96$ , RMSEA= 0.06, SRMR=0.06, NNFI=0.98, CFI=0.99, GFI=0.82, and AGFI=0.77, and the scale appeared to be confirmed as a model (Cokluk, Sekercioglu and Buyukozturk, 2010).

### *The Scale of Teacher Perception of Professional Well-Being*

The scale, which was developed by Yildirim, Arastaman and Dasci (2015), has 21 items in four dimensions (self-efficacy, aspiration, recognition, and professional collaboration). The equally spaced scale has choices between the most negative (1) and the most positive (7). The Cronbach's Alpha reliability coefficient calculated for the entire scale is .90. The inter-reliability coefficients between the four sub-dimensions were found to be .84 for self-efficacy, .80 for aspiration, .78 for recognition, and .70 for professional collaboration. The item-test (Item-Total) correlations in all dimensions of the scale vary between .43 and .68. As a result of the confirmatory factor analysis, the scale's fit indices were found to be  $\chi^2 /sd = 2.06$ , RMSEA= 0.06, SRMR=0.04, NNFI=0.97, CFI=0.98, GFI=0.89, and AGFI=0.86, and the scale appeared to be confirmed as a model (Cokluk et al., 2010).

### *Data Analysis*

After eliminating the questionnaires not completed according to the guidelines, a total of 301 questionnaires were included in the data analysis. The statistical analysis of the data collected in the study was performed using the SPSS 22.0 package program, and the error margin was taken as .05. When the normality of the data set was examined, it was found to have a parametric distribution ( $p > .05$ ). An answer to the first two sub-problems of the study was sought using descriptive statistics, and

that to the third sub-problem using multiple regression analysis. The independent variable of the study is the attitude toward MaE, and the dependent variable is the perception of PWB. Multiple linear regression analysis was performed to examine the potential of the attitude toward MaE to explain the perception of PWB. The correlation coefficients between the variables examined in the study, standardized regression coefficients, multiple correlation,  $R^2$ , and adjusted  $R^2$  were taken into account.

## Results

The study examined the relationship between teachers' attitudes toward MaE and their perceptions of professional well-being. Research findings were presented according to the research questions.

### *Teachers' attitudes toward measurement and evaluation*

The teacher attitude toward MaE is described below in Table 2. The teacher attitude toward MaE appears to be at a good level ( $\bar{X}$  5.52,  $S$  = .86). The teachers state that they have a command of the basic concepts of MaE, develop and implement measuring tools, use their results, make an effort to develop themselves in the area, are curious about the area, and like what they are doing.

**Table 2.**

*Descriptive Statistics for the Teacher Attitude toward Measurement and Evaluation*

Dimensions	n	Min.	Max.	$\bar{X}$	S
Developing a measurement tool	301	1.00	7.00	5.32	1.08
Using measurement tool and its results	301	2.71	7.00	5.83	.92
Knowledge of basic concepts	301	2.00	7.00	5.37	1.00
Using alternative measurement tools	301	1.67	7.00	5.60	1.07
Attitude towards measurement-evaluation	301	2.49	7.00	5.52	.86

When the sub-components of attitude toward MaE are examined, the areas toward which teachers have the most negative attitude are "measuring tool development" ( $\bar{X}$  = 5.32,  $S$  = 1.08) and familiarity with the basic concepts of MaE ( $\bar{X}$  = 5.37,  $S$  = 1.00). Teachers seem to considerably differ from each other in this matter. The teacher attitudes toward alternative measuring tools ( $\bar{X}$  = 5.60,  $S$  = 1.07) and overall application of measuring tools and use of their results ( $\bar{X}$  = 5.83,  $S$  = .92) are more positive than their attitudes toward measuring tool development and familiarity with the basic concepts. In other words, they like applying measuring tools and using their results, but they are less fond of preparing measuring tools and developing their knowledge and skills. When each of the values of the items in the scale is individually examined, the items requiring "I develop" and "I research" actions are seen to receive low values ( $4.91 \leq \bar{X} \leq 5.34$ ). In contrast, the items requiring "I use" actions are seen to receive high values ( $5.52 \leq \bar{X} \leq 5.91$ ). In general terms,

teachers seem to not tend to specialize in MaE, but instead tend to benefit from their practical and operational use.

#### *Teachers' perceptions of professional well-being*

Descriptive statistics for teacher perception of professional well-being is provided in Table 3. According to the table, teachers feel that they are professionally "at a good level" ( $\bar{X}=5.75$ ,  $S=.71$ ). When the sub-components making up perception of PWB are examined, the highest perception is in self-efficacy ( $\bar{X}=6.05$ ;  $S=.66$ ). The teachers feel that they possess the technical knowledge and skills required by their profession and can perform their jobs even under the most challenging conditions. The component with the highest variation ( $S=1.06$ ) and the lowest perception scores ( $\bar{X}=5.22$ ) is recognition. When interpreted according to the items making up the component, the teachers perceive the status of the profession in their location and recognition of their achievements by their administrators as lower compared to other items, but at a good level according to the mean scores (5.22 out of 7). The teachers consider themselves to be at a good level in terms of professional development and collegial relations, such as sharing material with colleagues ( $\bar{X}=5.98$ ,  $S=.80$ ). They exchange ideas with their colleagues, ask for their help, share tools and equipment, and reach common decisions. When the findings of the subcomponents of the perception of PWB are considered, the teachers seem to attach importance to individual attainment, but not to being recognized for their individual efforts. However, they seem to attach less importance to collective attainment in collaboration with their colleagues.

**Table 3.**

#### *Descriptive Statistics for Teacher Perception of Professional Well-Being*

Dimension	n	Min.	Max.	$\bar{X}$	S
Self-efficacy	301	4.08	7.00	6.05	.66
Recognition	301	1.43	7.00	5.22	1.06
Professional cooperation	301	3.50	7.00	5.98	.80
Perception of PWB	301	3.65	7.00	5.75	.71

#### *The relationship between the teacher attitude toward measurement and evaluation and their perception of professional well-being*

The relationships between teacher attitude toward MaE and perception of PWB are presented in Table 4. A moderately positive and significant relationship ( $r=.63$ ,  $p<.01$ ) is found between the score of the attitude toward MaE and the score of the perception of PWB. The attitude toward MaE seems to be an important indicator of how teachers consider themselves professionally. However, the fact that the score of the teacher attitude toward MaE ( $\bar{X}=5.52$ ,  $S=.86$ ) is lower than that of their perception of PWB ( $\bar{X}=5.75$ ,  $S=.71$ ) indicates a need for further studies on MaE.

When the relationships between the sub-dimensions of the scale are examined, they are found to be significant, positive, and moderate ( $.33\leq r\leq .65$ ,  $p<.01$ ). The highest of the relationships is that between "Self-efficacy" and "Attitude toward

Measurement and Evaluation" ( $r=.65$ ,  $p<.01$ ). The attitude sub-dimension that is most correlated with self-efficacy is that of "using measuring tools and its results". Considering that self-efficacy has the highest scores ( $\bar{X}=6.04$ ;  $S=.66$ ) among the scores of the perception of PWB, the positive and significant place of the attitude toward MaE is noted in terms of the perception of PWB. More specifically, applying a measuring tool and performing evaluation based on its results supports teachers' professional competence, thus fostering their perception of PWB.

**Table 4.**

*Correlations Among Variables (n = 301)*

Variables	$\bar{X}$	S	1	2	3	4	5	6	7	8	9
1 Index of attitude towards measurement	5.52	.87	--								
2 Developing a measurement tool	5.31	1.08	.87**	--							
3 Using measurement tool and its results	5.82	.92	.84**	.65**	--						
4 Knowledge of basic concepts	5.36	1.01	.84**	.61**	.62**	--					
5 Using alternative measurement tools	5.59	1.08	.83**	.65**	.61**	.61**	--				
6 Index of teachers' PWB	5.74	.72	.63**	.51**	.56**	.54**	.52**	--			
7 Self-efficacy	6.04	.66	.65**	.56**	.60**	.50**	.54**	.85**	--		
8 Recognition	5.23	1.08	.52**	.43**	.43**	.47**	.43**	.89**	.66**	--	
9 Professional cooperation and sharing	5.97	.81	.45**	.33**	.44**	.38**	.40**	.80**	.57**	.50**	--

\*\* $p<.01$

In the relationships between the sub-components of PWB perception and those of MaE attitude, "the professional cooperation" dimension has the lowest relationship ( $.33 \leq r \leq .45$ ,  $p<.01$ ). Considering that professional cooperation represents professional specialization and professional development, the relatively lower relationship scores may go along with the low scores in teachers' attitudes toward specialization and research in MaE. Despite the low importance of professional cooperation among the scores of attitude toward MaE, the high importance of self-efficacy may be an indicator that teachers attach more importance to "individual attainment rather than collective attainment."

The relationship scores of another sub-dimension of the perception of PWB, "recognition", and the attitude subcomponents vary between .43 and .52. Recognition may be summarized as the appreciation and respect shown to teachers for their efforts. In view of the relationship values, the attitude toward MaE is relatively important in terms of appreciation and respect shown to teacher.

When the relationship between the attitude toward MaE and the perception of PWB is analyzed using a more powerful statistical tool, the regression analysis, some



findings may be interpreted as an "effect." In order to perform the regression analysis, the existence of high correlation values between the variables ( $r = .90$ ) was examined, and since no such high correlation was found, the regression analysis was performed. In the analysis, the index score of the perception of PWB was taken as the dependent variable, and the scores of attitude toward MaE were taken as independent variables. The results are shown in Table 5. As a result of the multiple linear regression analysis, the teacher attitude toward MaE, together with its sub-dimensions, explains approximately 40% of the variance of the index score of the teacher perception of PWB ( $R=0.631$ ,  $R^2 =0.40$ ,  $p<.01$ .  $F_{(4,274)} = 45.315$   $p=0.000$ ). The adjusted  $R^2$  that corresponds to the model in the population suggests that the independent variables intersect the dependent variable at mid-level (adj.  $R^2 = .383$ ). According to the standardized regression coefficients ( $\beta$ ), the relative order of importance of independent variables regarding the PWB is "applying and using measuring tools" ( $\beta = .261$ ), "familiarity with basic concepts" ( $\beta = .209$ ), and "using alternative measurement tools" ( $\beta = .173$ ), while "developing measuring tools" is not significant.

**Table 5.**

*Results of the Multiple Regression Analysis on Predicting Teachers' Professional Well-Being*

Variable	B	Std. Err.	$\beta$	t	p
(Constant)	2.76	.23	--	12.19	.00
Developing a measurement tool	.07	.05	.10	1.44	.15
Using measurement tool and its results	.20	.05	.26	3.85	.00
Knowledge of basic concepts	.15	.05	.21	3.16	.00
Using alternative measurement tools	.12	.05	.17	2.55	.01

$R=0.631$   $R^2=0.398$   $Adj.R^2=0.383$   
 $F_{(4,274)} = 45.315$   $p=0.000$

## Discussion and Conclusion

With teachers from different subjects at the level of primary and lower secondary schools, this study attempted to examine the relationship between teachers' attitudes toward MaE and their perceptions of PWB. Comparing and generalizing the findings of the study is naturally restricted because of scarce studies focused directly on this relationship. Nevertheless, this study can be dignified as an initiative to satisfy the research gap.

This study has reached the conclusion that teachers have a great deal of positive perception to be professional and have a positive attitude toward MaE. A positive, significant, and moderate relationship between the level of their attitude toward MaE and that of their perception of PWB was identified, and their attitude toward MaE was found to be a significant predictor of the perception of PWB.

Teachers' positive attitudes toward MaE partially correspond with the findings of Caliskan & Yazici (2013) and fully agree with that of Erdogdu (2010). The former studies on participants who attended an in-service training and were only Social Sciences teachers, and the researchers found that teacher attitude toward MaE that

was slightly above the mean was more remote than the anticipated level, which they attributed to the inadequate MaE courses in the undergraduate level. Erdogdu (2010), whose research worked with all teachers from six schools (three elementary schools and three high schools), regardless of their branches, found that the teachers had a positive attitude toward MaE.

It may be cautiously concluded that the curriculum change after 2005 and the requirements imposed on teachers by the national level tests in MaE do not adversely affect teachers' attitudes toward MaE; on the contrary, the changes seem to have led to an enthusiasm for making up the lack of knowledge and skills. Many studies have suggested that teachers' MaE practices are traditional and that they are incompetent at applying MaE techniques (Akcadag, 2010; Bicak & Cakan, 2004; Celikkaya, Karakus & Demirbas, 2010; Leavit, 2012; Quilter, 1998; Schafer, 1991; Yaman, 2011). For example, the study by Maden and Durukan (2009) concluded that teachers found the MaE tools provided in the 2005 program to be complex, and that they should be better informed about MaE approaches and tools proposed by the program. This matter was presented as a contradiction in a study by Ceylandag (2009), who argued that teachers considered themselves to be competent, although they were identified to be incompetent, at MaE practices. Similar findings were also attained in the TED study (2009). Most teachers do not consider themselves professionally incompetent and do not feel that they need professional development. At this point, the exact relationships between "competency" and "perception of competency" and "attitude" remain uncertain. Campbell (1998) and Quilter (1998) found that teachers' knowledge of MaE was not correlated with their attitudes toward the matter, or that these were correlated at a low level. The literature indicates that there is yet to be a convincing consensus on the relationship between the level of teachers' competency in MaE and their attitudes toward the matter (Quilter, 1998; Schafer, 1991; Stiggins, 1997). It is reported that there may not be a correspondence between knowledge, skills, and practical competency; in other words, teachers may have a positive attitude toward MaE (or perception of competency) even if they do not possess adequate knowledge and skills in MaE. As a result, the conclusion of the present study, that there is a positive attitude of teachers toward MaE, does not mean that teachers are competent in the field at a satisfactory level. Here, the researchers point to the merit of studying the relationship between the teacher "competency" and "attitude" in MaE.

An examination of the sub-dimensions of teachers' attitudes toward MaE reveals that they attach more importance to meeting their daily practical needs than to specializing in MaE. The mean scores of the items "I develop" and "I research" are lower, and the teachers have a relatively lower attitude in the dimension of "developing measuring tools" and "familiarity with basic concepts." Teachers seeming to hold more positive attitudes toward existing and easily accessible MaE practices and their "usual" MaE practices; however, they have less positive attitudes toward activities that require long-term commitment and disciplined effort. This suggestion is confirmed by Yaman (2011), who found that teachers prefer traditional methods and that self-efficacy related with MaE practices leads them to better professional perception. This situation suggests that the "psychomotor" component is more evident than the "cognitive" and "affective" components of attitude, and at the same time, it is also in accordance with common uses of traditional MaE techniques as opposed to alternative measuring tools. As a result, teachers find the aspect of

MaE that "meets the need in a short time" more positive. This attitude must be taken into consideration by the education administration, especially in professional development activities. In this context, the conclusion of Gelbal & Kelecioglu (2007) that "the teachers lack sufficient references to interact with in order to develop and use measuring tools and use their results in MaE practices" is noteworthy.

This study has found that teachers consider themselves to be at a good level professionally. This finding concurs with previous research (Aelterman et al., 2007; Butt & Retallick, 2002; Yildirim, 2014, 2015). The most significant support of this positive perception is made by the "self-efficacy" component. The self-efficacy perception, which refers to the teachers' belief in possessing the technical knowledge and skills required by the profession and successfully employing them, is indicated as the most important component in the previous studies (Aelterman et al., 2007; Bricheno et al., 2009; Ceylandag, 2009; Yildirim, 2015). However, in the present study the teachers gave relatively lower scores to the "recognition" component. The study by Yildirim (2014b) found that teachers' expectations for recognition and appreciation were not met. Herzberg (1968, as cited by Donmez, 2014) defines recognition as a motivator in his two-factor theory and emphasizes that it fosters job satisfaction. Appreciation of achievements, recognition, higher self-esteem, and confidence lead to motivation to assume more responsibility, which indicates that the individual is considered important. Education administrators must assign responsibilities to teachers, support them in achieving these responsibilities, and recognize and appreciate them for their accomplishments. This process corresponds with the principle suggested by Vroom (1964, as cited by Donmez, 2014) in their theory of expectations, "Individual expects to be appreciated and rewarded for their efforts." However, the teachers report that they do not receive the respect and appreciation they expect for their efforts. Teachers believe that they fulfill their responsibilities, but are not recognized by others for their fulfillment of their responsibilities.

Teachers' high perception of self-efficacy may also be interpreted as a lower frequency and level of experiencing problem situations that require them to perform professionally challenging additional works, research, and meetings that would lead to an awareness of their professional incompetence. This situation, which is reminiscent of routinization and stagnation, may suggest a lack of activities by education administration for challenging and setting goals that are not easily attainable to be embraced in collaboration with all stakeholders, including teachers. As a result, the fact that teachers consider themselves to be in a very good condition professionally does not mean that they are very professionally competent or that the education and teaching activities at schools are very good. The TED (2009) study that supports this interpretation found that teachers had a very low perception of their professional development needs and that 88% of them did not follow a professional periodical. The same study also notes that teachers might be professionally sentimental and therefore have exaggerated opinions.

In the present study, a significant, positive relationship that may be considered high was found between teachers' attitudes toward measurement-evaluation and their perceptions of PWB. The fact that the attitude developed by teachers toward MaE has relatively a strong effect on their perception of PWB indicates the place of

“measurement and evaluation” in their professional lives. It may be concluded that, as the teachers’ attitudes toward MaE improve, they will feel professionally better. The reverse is also possible. This indicates the importance of activities that school administrators must perform to improve the attitude toward MaE. This finding also suggests that the theoretical relationship argued in the present study is experimentally supported.

The subcomponents of teacher attitude toward MaE, those of perception of PWB, self-efficacy, and attitude toward measurement and evaluation have a notably strong relationship. It may be suggested that activities that support the development of a positive attitude toward measurement and evaluation may also improve professional self-efficacy, and thus the perception of PWB. Of the components of the attitude toward MaE, “using measuring tools and their results” has the greatest effect on the perception of PWB. The significant positive relationship between this effect and “self-efficacy” and “using measuring tools and their results”, which may be considered high, exhibits the inter-consistency of the findings in the study.

In terms of the generalizability of the present study’s conclusions, the existing circumstances of the participants and their characteristics need to be taken into consideration. Particularly, at the time the study was conducted, secondary school teachers’ attitudes toward MaE might have been affected by recent MaE discussions centered around TEOG (Transitioning from Elementary Education to Secondary Education) tests and by statements that test results would be associated with teacher performance. Besides, the ongoing effects of the recent changes that occurred due to high-level political decisions may also have affected the results of teacher perception of PWB. From a different standpoint, the results of the “scale of the teacher perception of PWB” must be cautiously considered. The teacher perception of PWB may change depending on the challenging professional conditions experienced by teachers (demand for not easily attainable goals, teaching based on individual differences, experiencing student behavior subject to disciplinary action, taking part in professional projects, etc.). Also, the level and school type where teachers are employed may be an important institutional factor affecting their perception of PWB. For example, the perception of PWB of a classroom teacher at an elementary school and that of someone teaching a culture course at a technical vocational school might generate considerably different results. Subsequent studies are recommended to focus on this matter. Another problem in this context is the lack of a reliable mechanism that monitors teachers’ professional development during their service. If there were such a mechanism, more accurate assessments could be made. “The Scale of Teacher Attitude toward Measurement and Evaluation” may be used in planning and implementing professional development activities for teachers. Further research analyzing the relationship between teachers’ MaE competencies and their attitudes is recommended.

## References

- Aelterman, A., Engels, N., Petegem, K. V., & Verhaeghe, J. P. (2007). The well-being of teachers in Flanders: The importance of a supportive school culture. *Educational Studies*, 33(3), 285-297.
- Akçadag, T. (2010). Öğretmenlerin ilköğretim programındaki yöntem, teknik, ölçme ve değerlendirme konularına ilişkin eğitim ihtiyacı [Teachers' need for training on assessment and evaluation methods and techniques]. *Bilgi*, 53, 29-50.
- Alici, D. (2013). Okula yönelik tutum ölçeğinin geliştirilmesi: Güvenirlilik ve geçerlik çalışması [Developing the scale of attitude towards school: The study of validity and reliability]. *Eğitim ve Bilim*, 38(168), 318-331.
- Arastaman, G., Yildirim, K. and Dasci, E. (2015). Development of measurement and evaluation scale: A study of reliability and validity. *Pamukkale University Journal of Education*, 38(2), 219-228.
- Balci, A. (2011). *Sosyal bilimlerde araştırma yöntem, teknik ve ilkeler [Research methods, techniques and principle in social sciences]*. Ankara: PegemA.
- Bicak, B., & Cakan, M. (2004, Aralık). Lise öğretmenlerinin sınıf içi ölçme ve değerlendirme uygulamalarına donuk görüşleri [Views of high school teachers about practices of assessment and evaluation in classroom]. Orta Öğretimde Yeniden Yapılanma Sempozyumu'nda sunulmuş bildiri, Milli Eğitim Bakanlığı, Ankara.
- Bricheno, P., Brown, S., & Lubansky, R. (2009). *Teacher well-being: a review of evidence*. Retrieved on 12 March 2012 from: <http://www.scribd.com/doc/>.
- Butt, R., & Retallick, J. (2002). Professional well being and learning: A study of administrator-teacher workplace relationships. *Journal of Educational Enquiry*, 3, 17-34.
- Campbell, C. S. (1998). *Preservice teachers' classroom assessment practices: An investigation into the factors that contribute to the discrepancy between measurement instruction and practical implementation* (Unpublished doctoral dissertation). Southern Dlinois University, Carbondale.
- Ceylandag, F. R. (2009). *Teacher self efficacy beliefs toward measurement and evaluation* (Unpublished Master's Thesis). Middle East Technical University, Ankara.
- Cothari, C. R. (2004). *Research methodology*. New Delhi: New Age
- Creswell, J. W. (2005). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. Columbus, OH: Pearson.

- Caliskan, H., & Yazici, K. (2013). Olcme ve degerlendirmeye iliskin tutum olceginin gelistirilmesi ve sosyal bilgiler ogretmenlerinin tutum duzeylerinin cesitli degiskenlere gore incelenmesi [Developing the scale of attitude towards assessment and evaluation and analysing attitudes of social sciences teachers in terms of different variables]. *International Journal of Human Sciences*, 10(1), 398-415.
- Celikkaya, T., Karakus, U., & Demirbas C. O. (2010). Sosyal bilgiler ogretmenlerinin olcme-degerlendirme araclarini kullanma duzeyleri ve karsilastiklari sorunlar [The level of applying assessment and evaluation tools and difficulties experienced by social sciences teachers]. *Ahi Evran Universitesi Egitim Fakultesi Dergisi*, 11, 57-76.
- Cokluk, O., Sekercioglu, G. and Buyukozturk, S. (2010). *Sosyal Bilimler icin cok degiskenli istatistik SPSS ve LISREL uygulamalari* [Statistics with Multivariable for Social Sciences: Implementing SPSS and LISREL]. Ankara: PegemA.
- Donmez, B. (2014). Motivasyon [Motivation]. S. Ozdemir (Ed.), *Egitim yonetiminde kuram ve uygulama icinde* (pp. 185-229). Ankara: PegemA.
- Dylan, W. The role of formative assessment in effective learning environments. In H. Dumont, D. Istance and F. Benavides (Eds.), *The nature of learning* (pp. 135-155). Paris: OECD Publication.
- Erdogdu, M. Y. (2010, November). *Ogretmenlerin olcme-degerlendirmeye yonelik tutumlarının bazi degiskenler acisindan incelenmesi* [Analysing the teachers' attitude towards assessment and evaluation regarding some variables]. International Conference on New Trends in Education and Their Implications, Antalya.
- Erkan, S., & Gomleksiz, M. (2008). *Egitimde olcme ve degerlendirme* [Assessment and evaluation in education]. Ankara: Nobel
- Fraenkel, J.R., Wallen, N.E. and Hyun, H. H. (2012). *How to design and evaluate research in education*. New York: McGraw-Hill.
- Gelbal, S., & Kelecioglu, H. (2007). Ogretmenlerin olcme ve degerlendirme yontemleri hakkindaki yeterlik algilari ve karsilastiklari sorunlar [Teachers' perception of competency about assessment and evaluation methods and difficulties]. *Hacettepe Universitesi Egitim Fakultesi Dergisi*, 33, 135-145.
- Gencil, İ.E., & Ozbasi, D (2013). Investigating Prospective Teachers' Perceived Levels of Competence towards Measurement and Evaluation. *İlkogretim Online*, 12(1), 190-201.
- Gunes, A. (2007). *Sinif ogretmenlerinin kendi algilarina gore olcme ve degerlendirme yeterlikleri* [Primary school Teachers' perception about the competencies of assessment and evaluation] (Unpublished Master's thesis). Marmara Universitesi Egitim Bilimleri Enstitusu, İstanbul.

- Guven, E. (2013). Cevre sorunlarına yönelik tutum olceginin gelistirilmesi ve ogretmen adaylarının tutumlarının belirlenmesi [Developing the scale of attitude towards environmental issues and describing attitudes of student teachers]. *GEFAD*, 33(2), 411-430.
- Karaca, E. (2004). *Ogretmen adaylarının olcme ve degerlendirme yeterliklerine iliskin algilari* [Student teachers' perceptions of competencies on assessment and evaluation]. Eskisehir: Anadolu Universitesi Yayinlari.
- Karakilic, M. (2009). *Beden Egitimi dersi icin hazirlanan tutum olceginin psikometrik kuramlar acisindan incelenmesi* [Examining the scale of attitude developed for the course of training body in terms of psychometric theories] (Unpublished doctoral dissertation), Ankara Universitesi Egitim Bilimleri Enstitusu, Ankara.
- Kilmen, S., & Demirtasli, N. C. (2009). Sinif ogretmenlerinin olcme ve degerlendirme ilkelerini uygulama duzeylerine iliskin gorusleri [Primary school teachers' views about the level of practicing the principles of assessment and evaluation]. *Ankara Universitesi Egitim Bilimleri Fakultesi Dergisi*, 42(2), 27-55.
- Leavitt, L. H. (2012). *Preservice teachers' perceptions of assessment and teacher preparation in educational measurement*. Unpublished Doctoral Dissertation, University of South Dakota.
- Maden, S., & Durukan, E. (2009). Turkce dersi ogretmenlerinin olcme-degerlendirmeye iliskin algilari [Turkish language teachers' perception on assessment and evaluation]. *Milli Egitim*, 190, 212-233.
- MEB (2008). *Ogretmen yeterlikleri, ogretmenlik meslegi genel ve ozel alan yeterlikleri* [Teachers' competencies, general and subject competencies of teaching profesjon]. Ankara: Devlet Kitaplari Mudurlugu.
- MEB (2009). *Ilkogretim matematik dersi 1-5. siniflar ogretim programi* [Curriculum of Mathematics for primary education, 1-5 level]. Ankara: Devlet Kitaplari Mudurlugu.
- OECD (2009). *Creating effective teaching and learning enviroments: First results from TALIS*, Paris: OECD Publication.
- Ozan, C., & Kose, E. (2013). Adaptation of attitudes toward Educational Measurement Inventory (ATEMI) to Turkish. *E-International Journal of Educational Research*, 4(2), 29-47.
- Ozcelik, D. A. (2011). *Olcme ve degerlendirme* [Assessment and evaluation]. Ankara: PegemA.
- Quilter, S. M. (1998). *Inservice teachers' assessment literacy and attitudes toward assessment*. Unpublished Doctoral Dissertation, University of South Carolina.
- Schafer, W. D. (1991). Essential assessment skills in professional education of teachers. *Educational Measurement: Issues and Practice*, 10(1), 3-6.

- Stiggins, R. J. (1997). *Student-centered classroom assessment*. Upper Saddle River, NJ: Prentice-Hall.
- Tavsancıl, E. (2010). *Tutumların ölçülmesi ve SPSS ile veri analizi [Measuring attitudes and data analysis through SPSS]*. Ankara: Nobel.
- TED (Türk Eğitim Derneği) (2009). *Oğretmen yeterlikleri [Teachers' competencies]*. Ankara: Okan Matbaa
- Turgut, M. F., & Baykul, Y. (2010). *Eğitimde ölçme ve değerlendirme [Assessment and evaluation in education]*. Ankara: PegemA.
- Yaman, S. (2011). Teachers' perceptions about their measurement and evaluation practices in science and technology course. *Elementary Education Online*, 10(1), 244-256.
- Yasar, M. (2014). Eğitimde ölçme ve değerlendirme dersine yönelik tutum ölçeğinin geliştirilmesi [Developing the scale of attitude towards the course of assessment and evaluation in education]. *Eğitim Bilimleri Araştırmaları Dergisi Uluslararası E-Dergi*, 4(1), 258-279.
- Yıldırım, K. (2014). Main factors of teachers' professional well-being. *Educational Research and Reviews*, 9(6), 153-163. doi:10.5897/ERR2013.1691
- Yıldırım, K. (2015). Testing the main determinants of teachers' professional well-being by using a mixed method. *Teacher Development*, 19(1), 59-78. doi: 10.1080/13664530.2014.970663
- Yıldırım, K., Arastaman, G. ve Dascı, E. (2015). Öğretmenlerin mesleki iyilik algısı ölçeğinin geliştirilmesi, test edilmesi ve uygulanması [Developing, testing and implementing the scale of teachers' professional well-being]. *Kuramsal Eğitim Bilim Dergisi*, 8(4), 486-506.
- Zhang, Z., & Burry-Stock, J. A. (2003). Classroom assessment practices and teachers' self-perceived assessment skills. *Applied Measurement in Education*, 16(4), 323-342.



## Appendices

### Appendix A. The Scale of Teacher Attitude toward Measurement and Evaluation

Please define your agreement in the following statements by scoring between 1= Does not represent me at all and 7= Definitely represents me.

#### *Developing Measuring Tools*

6. I'm qualified to develop a sufficient measuring tool.
7. I research to see how a sufficient measuring tool should be.
8. I am familiar with developing the measuring tool I need.
12. I consider myself to be qualified to prepare measuring tools.
13. I like developing measuring tools.
14. I do not have difficulty developing measuring tools.

$\alpha = .898$

#### *Using measuring tools and their results*

15. I know how to apply a measuring tool.
16. I apply measuring tools as I planned.
18. I know how to score.
19. Scoring makes me curious.
20. I know how to use measuring results.
21. I use measuring results to ensure that students learn better.
22. Measurement and evaluation results must be announced.

$\alpha = .885$

#### *Familiarity with Basic Concepts*

1. Basic concepts of measurement and evaluation (scale, criteria, etc.) attract my attention.
2. I investigate the basic concepts of measurement and evaluation.
3. I know the basic concepts of measurement and evaluation.
4. I use the basic concepts of measurement and evaluation.
5. I have sufficient information about the qualities of measuring tools (validity, reliability, usability).

$\alpha = .830$

#### *Using Alternative Measuring Tools*

9. I use a range of different measuring tools instead of the same measuring tool.
10. Alternative measuring tools attract my attention.
11. I am familiar with alternative measuring tools

$\alpha = .821$

**Appendix B. The Scale of Teacher Perception of Professional Well-Being**

Please define your agreement in the following statements by scoring between 1= Does not represent me at all and 7= Definitely represents me.

*Self Efficacy*

1. I feel that I am professionally very good.
2. I try new things at my job.
3. I make my own professional decisions.
4. I know the rules required by my profession.
6. I follow the latest innovations in my profession.
12. I can fulfill what is required by my job effectively even under most challenging circumstances if I want.
17. I have the knowledge and skills that I can easily employ at my job.
18. I decide on the innovative practices at my job myself.
19. I can perform my profession successfully anywhere.
20. I seek new ways to do my job more effectively.
21. I know how to reach individuals (students, parents, employees).
22. I decide on the professional tools and equipments used at my workplace.
26. I incorporate the professional theoretical knowledge into practice.

 $\alpha = .895$ *Recognition*

5. I am appreciated for my professional accomplishments.
8. My profession is highly respected in my environment.
15. I hold useful discussions with the school administration in professional matters.
16. I regularly read professional publications (books, magazines, articles ...).
23. I am appreciated by the administration for my professional accomplishments.
27. I have exciting future plans about my profession.
28. I can achieve my professional goals where I work.

 $\alpha = .835$ *Professional collaboration and sharing*

7. I exchange views on professional matters with the concerned friends.
9. I make professional decisions together with my colleagues.
24. I ask my friends for help to develop myself professionally.
25. I share perspectives, techniques and tools which I believe to be effective with my friends.

 $\alpha = .744$

## Öğretmenlerin Ölçme ve Değerlendirmeye İlişkin Tutumları ile Onların Mesleki İyilik Algıları Arasındaki İlişki

### Atf:

Yildirim, K., Arastaman, G., & Dasci, E. (2016). The relationship between teachers' attitude toward measurement and evaluation and their perceptions of professional well-being. *Eurasian Journal of Educational Research*, 62, 77-96 <http://dx.doi.org/10.14689/ejer.2016.62.6>

### Özet

*Problem Durumu:* Okullarda öğretimin kalitesi büyük ölçüde öğretmenlerin yeterliklerine bağlıdır. Bu yeterliklerden biri ölçme ve değerlendirme bilgi ve becerisidir. Öğrencilerin bilişsel, duyuşsal ve psiko-motor gelişimlerini takip edip gerekli müdahalelerde bulunabilmek öğretmenlerin farklı ölçme ve değerlendirme araçlarını geliştirebilme, kullanabilme ve sonuçlarını analiz edebilme becerilerini gerektirmektedir. Son yıllarda müfredat odaklı reform hareketleri, ölçme ve değerlendirme konulu gelişmeleri ve bu konuda öğretmenlerden beklentileri öne çıkarmıştır. Öğretmenlerin bu alandaki deneyimleri onların tutumlarını ve mesleki iyilik algılarını etkileme potansiyeli taşımaktadır. Literatür taraması, bu durumu inceleyen herhangi bir çalışma yapılmadığını işaret etmektedir.

*Araştırmanın Amacı:* Bu çalışmada, öncelikle öğretmenlerin ölçme ve değerlendirmeye ilişkin tutumları ile onların mesleki iyilik algıları betimlenmiştir. Çalışmanın temel amacına ulaşmak için bu iki değişken arasındaki ilişki incelenmiştir.

*Araştırmanın Yöntemi:* Bu çalışma tarama deseninde ilişkiisel bir çalışmadır. Öğretmenlerin ölçme ve değerlendirmeye ilişkin tutumları ile onların mesleki iyilik algıları arasındaki ilişkiyi inceleyebilmek için veri toplama araçları olarak *Öğretmenlerin Ölçme ve Değerlendirmeye Yönelik Tutum Ölçeği* ile *Öğretmenlerin Mesleki İyilik Algısı Ölçeği* kullanılmıştır. Araştırmada çok aşamalı örneklem yöntemi kullanılmıştır. Beş eğitim bölgesini temsilen tesadüfi yöntemle okullar belirlenmiş ardından okullardaki branş öğretmenleri araştırmaya dahil edilmiştir. Veriler, 2014 Mart ve Mayıs ayları arasında Aksaray İlinde ilkokul ve ortaokul seviyesinde görev yapmakta olan çeşitli branşlardan toplam 301 öğretmenden elde edilmiştir. Ölçekler, aynı anket formu içinde eşzamanlı olarak uygulanmıştır. Veriler tanımlayıcı istatistikler, Pearson korelasyon katsayısı (r) ve çoklu doğrusal regresyon analizi ile incelenmiştir.

*Araştırmanın Bulguları:* Çalışmada, öğretmenlerin ölçme ve değerlendirmeye ilişkin olumlu ve iyi düzeyde bir tutuma sahip oldukları ( $\bar{X}=5.52$ ,  $S=.86$ ) bulunmuştur. Bununla birlikte görece olarak en düşük ortalama ölçme aracı geliştirme boyutunda ( $\bar{X}=5.32$ ,  $S=1.08$ ) görülmüştür. Aynı zamanda öğretmenler olumlu ve iyi düzeyde mesleki iyilik algısına sahiptirler ( $\bar{X}=5.75$ ,  $S=.71$ ). Görece olarak mesleki iyilik algısının en düşük olduğu boyut tanıma ve takdir edilme boyutudur ( $\bar{X}=5.22$ ,

S=1.08). Öğretmenlerin ölçme ve değerlendirmeye yönelik tutumları ile onların mesleki iyilik algıları arasında anlamlı iyi düzeye yakın bir ilişki bulunmuştur ( $r=.63$ ,  $p<.05$ ). Alt boyutlar arasında en güçlü ilişki öğretmenlerin öz-yeterlik algısı ile ölçme araçları ve sonuçlarını kullanmaya yönelik tutumları ( $r=.60$ ,  $p<.05$ ). Araştırmada öğretmenlerin ölçme ve değerlendirmeye ilişkin tutumlarının onların mesleki iyilik algılarını yordama gücü incelenmiş, analiz sonucunda ölçme ve değerlendirmeye ilişkin tutumun onların mesleki iyilik algısının anlamlı bir kestiricisi olduğu bulunmuştur ( $R=0.631$ ,  $R^2 =0.40$ ,  $p<.01$ .  $F_{(4,274)} = 45.315$   $p=0.000$ ). Alt boyutlar arasında en güçlü kestirici “Ölçme aracını ve sonuçlarını kullanma” ( $\beta = .261$ ,  $p=.000$ ) değişkenine aittir.

*Araştırmanın Sonuçları ve Önerileri:* Bu çalışmada, öğretmenlerin hem ölçme ve değerlendirmeye yönelik tutumlarının hem de mesleki iyilik algılarının olumlu ve iyi sayılabilecek düzeyde olduğu sonucuna ulaşılmıştır. Aynı zamanda öğretmenlerin ölçme ve değerlendirmeye yönelik tutumlarının, onların mesleki iyilik algılarının anlamlı ve güçlü sayılabilecek bir kestiricisi olduğu tespit edilmiştir. Araştırmada ulaşılan sonuçlar, önceki araştırma sonuçlarıyla uyumludur ancak ilişki açısından daha önce yapılmış bir çalışmaya erişilemediğinden yorum yapılamamıştır. Araştırma sonuçlarına bağlı olarak öğretmenlerin kendilerini mesleki açıdan iyi hissetmelerini sağlayabilecek mesleki gelişimlerinin önemsenmesi ve özellikle okul içi süreçlerde onların ölçme ve değerlendirme örneğinde mesleki gelişimlerinin desteklenmesi önerilmektedir. Araştırmacılar açısından bu çalışmanın farklı örneklerde çalışılarak sonuçlar arasındaki tutarlılığın incelenmesi önerilmektedir.

*Anahtar Sözcükler:* Mesleki iyilik algısı, ölçme ve değerlendirme, tutum, ilişki, ikincil araştırma