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The examinations of teachers' attitude towards performance assessment with respect to the different variables

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Abstract

The aim of this study is to determine examinations of teachers' attitudes towards performance assessment with respect to the different variable. This research was carried out in fall semester of 2009 in Artvin in northeastern Turkey with 566 teachers. Survey methodology was used in this study. Results show that, teachers' performance assessment attitudes and attitudes towards using performance assessment in classroom, negative attitudes towards performance assessment and attitudes towards self and peer assessment subscale are at medium level. No significant differences were found ($p>0.05$) between gender sub-scales of performance assessment attitude apart from negative attitudes towards performance assessment sub-scale. Besides, there are significant difference ($p<0.05$) performance assessment attitude scale and sub-scales between different variable such as age and professional experience. Teachers under the age of 25 years have more positive attitude performance assessment and each subscale than the other ones. In addition to this, teachers less than 5 years experience have more positive attitude performance assessment and each subscale than the other ones.

Keywords: Measurement and assessment; Traditional assessment; Multiple-choice test; Performance assessment; Attitude

1. Introduction

Assessing students' performance is one of the most critical aspects of the job of a teacher. So, teachers need to knowledge about how students' performance is assessed and which techniques is used to assessing students' performance [1, 2]. In addition, it is important that teachers follow to change on assessment techniques and practices. Recently, assessment practices have changed in the world. At first, it was appropriated to traditional assessment practices such as filling in the blanks for sentences and diagrams, matching components from different columns, judging items to be true or false, choosing the right answer from multiple-

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choice items, and giving short answers to questions [2-7]. However, last three decades, assessment practices have shifted since the mid-1980s from a reliance on objectively scored multiple-choice test items to the use of a mixture of formats, including performance assessments, which reputedly measure higher level cognitive skills such as problem solving, critical thinking, and reasoning [6, 8-10].

In Turkish educational system, summative assessment approach or traditional assessment approach were mostly used in past [7, 11, 12]. But, last five years, it was seen that these assessment types were less used in education in order to recent developments and demands in science and society have deeply affected in Turkish educational systems [13-20]. Especially theories such as constructivism and multiple-intelligence and new social trends such as changing labor market, information-age needs engendered to radical change in traditional approaches of learning, teaching and assessment. Since learning approach is changed, it affects assessment procedures and approaches [21]. So, Turkish educational system is fundamental change. One of the chancing is to develop new curriculums in the different field such as primary (Science and Technology, Mathematics, Social Science) and high school curriculum. New instructional programs were adapted to the constructivist learning approach. Hence, current views of learning and instruction in schools that emphasis student-centered, constructive teaching and learning require assessment systems to be changed to "go with" the content and style of teaching-learning experienced by students [22, 23]**.** So, performance assessment is used in place of traditional assessment approach in Turkish educational system.

One of most important reason of this change in assessment practices is due to educational reform in the world and Turkey is emphasizing the teaching and assessment of higher-level cognitive skills [6, 10, 24]. After educational reforms, teachers have been wanted an assessment of students' higher-level cognitive skills such as problem solving, creative and critical thinking skills. But assessment of these skills can be not possible with multiple-choice test items [2, 6, 8, 10, 12, 24]. According to Baker et al. [25], without a clear window on students' complex thinking and problem-solving skills, not only do we fail to evaluate our students and instructional programs adequately, but we also communicate to teachers, parents, and students that such untested skills are not very important. Besides, multiple-choice test provide little information about students' level of understanding or quality of thinking [26]. So in new educational system, teachers have been wanted to appropriate to performance assessment instead of traditional assessment while students performance is assessed [27, 28].

Performance assessments are defined as concrete and authentic tasks that require students to do something with their knowledge and skills, such as give a demonstration or presentation, or write a report [29, 30]. Similarly, performance assessment is defined as a constructed response in which students are actively engaged in solving a realistic problem that demands more than simply recalling memorized knowledge by Baron [31]. They focus on doing something, not merely knowing, and on process as well as product [1, 6, 10, 12, 32]. Furthermore, performance assessment involves observing and assessing students' behavior while the behavior is underway [33]. Students are required to demonstrate acquisition of knowledge and skills in one or more content areas rather than answer questions about their knowledge and skills in that/those area(s) [34].

Actually, performance assessment is not a new type assessment in education. Because some technique of performance assessment such as essay, oral presentations, demonstrations of experiment, form of assigned papers, reports and project have been used in many classrooms [35]. But, in spite of these techniques was used in respect of traditional assessment, application of these techniques was not appropriate to performance assessment approach. In the principle of performance assessment, students have been done. That is to say,

the emphasis of performance assessments is on doing. Besides, a performance assessment requires a student to execute a task or process and bring it to completion [6, 12, 36]. In other words, a student performs, creates, or produces something over a long period of time to permit evaluation of either the process or the product, or both of them [1, 6, 10, 12, 35, 36]. Furthermore, in performance assessment, students do something that requires higher level thinking or problem solving skills (not just one right answer) [37]. In addition to this, performance assessment can be individual or groups oriented and imitate actual workplace activities or real-life skills applications [6, 10, 37]. Moreover, performance assessment helps to students to develop some skills such as inquiry, problem solving, oral presentation, organizing skills and writing [38, 39]. Besides, performance assessment is so important that students' science process, higher level thinking, problem solving skills were developed [1, 4, 5, 6, 38, 40]. Also there is no single method of performance assessment. Rather, there are many different measurement approaches including assessment of both process and products [41]. So, performance assessment helps to teachers to determine and assessment students' skill and performs with multiple assessment techniques [6, 28].

Although the benefit of performance assessment is well documented, some teachers are hesitant to implement them in their classrooms. Commonly, this is because these teachers feel they don't know enough about how to fairly assess a student's performance [3, 33]. Another reason for reluctance in using performance assessments may be previous experiences with them when the execution was unsuccessful or the results were inconclusive [42]. Because of these reasons, teachers have negative attitude towards performance assessment. These teachers don't want to use performance assessment in classroom. So, it is important to determine that teachers have attitude towards performance assessment [43-48].

In literature, there are many research related with performance assessment. These researches are focuses on theoretical knowledge of performance assessment [1, 4-6, 10, 40], effects of performance assessment [38, 39, 49] development of rubric and performance task [50-52], portfolio assessment [53, 54], applicable of portfolio assessment [11, 55], effects of portfolio assessment on students' achievement [56, 57], opinions of students and teachers about portfolio assessment [58, 59]. But it was seen that there are a few study relationship determination of teachers' attitude towards performance assessment [60-62]. So, it is believed that this study provide an important contribution to researchers studies on performance assessment. In this study, it is aimed to determine examinations of teachers' attitudes towards performance assessment with respect to the different variable.

1. 1. Purpose of the study

This study's aims are to determine examinations of teachers' attitudes towards performance assessment with respect to the different variable such as gender, age and professional experience at a small city in northeastern Turkey. In accordance with this objective, the study specifically focuses on the following research questions:

1) According to performance assessment attitude and its' sub-scales what is the overall profile of teachers attitudes towards performance assessment?
2) Is there a difference on performance assessment attitudes between genders?
3) Is there a difference on performance assessment attitudes between ages?
4) Is there a difference on performance assessment attitudes between professional experiences?

2. **Methodology**

The aim of this study is to determine teachers' attitudes towards performance assessment on different variable. This research was carried out in fall semester of 2009 at a small city in northeastern Turkey. Survey methodology was used in this study. Surveys can be useful when a researcher wants to collect data on phenomena that cannot be directly observed [44, 45]. Besides, surveys are used to describe attitudes, opinions, behaviors or characteristics of a group [63-65].

2. 1. Participation

Sample of this study consist of 566 teachers who are studying at primary schools in Artvin in northeastern Turkey. According to gender variable, 284 (50.2%) male and 282 (49.8%) female teachers selected randomly among volunteer participated in the study. Grade level variable consist of 134 (23.7%) under the age of 25, 358 (63.3%) between 26 and 35 years old, 52 (9.2%) between 36 and 45 years old and 22 (3.9%) over the age of 45. According to professional experience variable, 110 (19.4%) less one year, 178 (31.4%) between one and five years, 196 (34.6%) between six and ten years and 82 (14.5%) more ten years. Teachers in sample of research used performance assessment in classroom since 2005 in order to teachers obligatory applied to performance assessment which Turkish Ministry of Education was wanted to this. So all most all of teachers have experience on performance assessment and its applications. Besides, most teachers participated to in-service education program on new curriculum program and its measurement and assessment approach.

Before questionnaire was applied, researcher gets permission to Artvin Ministry of Education to application of questionnaire. Besides, researcher visited each of the schools in Artvin and explained the purpose of the questionnaire, read the researcher aloud and answered any individual questions that the teachers asked.

2. 2. Instrument

In this study, questionnaire was designed for analyzing teachers' attitudes towards performance assessment. This questionnaire is divided into two parts. In the first part there are some demographic questions as independent variables such as gender, age and professional experience which were developed by the researcher. In the second part there is a performance assessment attitude (PAA) which was developed by metin [32]. PAA was administered in Turkish and the analysis was done in Turkish too. There are 30 attributions in PAA and it consists of three sub-scales. These are attitude towards using performance assessment in classroom (AUPAC), negative attitudes towards performance assessment (NAPA) and attitudes towards self and peer assessment (ASPA). The total score of 30 attributions also give the general attitudes towards performance assessment. Additionally, the reliability coefficient (Cronbach Alpha) of the questionnaire is 0.899. It's just like five point Likert Type scale and each statement were labeled as 5= strongly agree, 4= agree, 3= undecided, 2= disagree and 1= strongly disagree.

Positive attributions were graded as 5-4-3-2-1 and negative attributions were graded as 1-2-3-4-5 questionnaire. Ranges of agreement with the attributions on the questionnaire was determined by using (n-1)/n Formula and after calculations the interval width of the range between 1 through 5 was calculated as 0.8. The interval width of 1.00-1.80 showed very low level, the 1.81-2.60 intervals showed low level, the 2.61-3.40 interval showed medium level,

the 3.41-4.20 interval showed high level, and the 4.21-5.00 interval showed very high level of agreement with the statements on questionnaire. Sub-scales' names, number of their attributions and classification of obtainable scores for each attitude levels (low, very low, medium, high and very high level) can be seen in Table 1.

Table 1. Classification of obtainable scores for different attitude levels

	No of attributions	Very low	Low	Medium	High	Very high
PAA	30	30-54	55-78	79-102	103-126	127-150
AUPAC	13	13-23.4	23.5-33.8	33.9-44.2	44.3-54.6	54.7-65
NAPA	11	11-19.8	19.9-28.6	28.7-37.4	37.5-46.2	46.3-55
ASPA	6	6-10.8	10.8-15.6	15.7-20.4	20.4-25.2	25.3-30

After administering this questionnaire to the sample, the reliability coefficient (Cronbach Alpha) of the questionnaire was found as 0.890.

2. 3. Analysis of data

Teachers' responses to the questionnaire were statistically analyzed according to gender, age, professional experience, graduated school type and types of teachers' branch variables via SPSS 11.5 software. The mean ($\bar{x}$) and standard division (ss) scores were computed for each attribution. In the study, some parametric tests such as t-test; one-way analysis of variance (ANOVA) based on p=0.05 significance level were used to clarify the significance of the differences on means. In order to determine source of the differences on means in ANOVA Scheffe test was used.

3. Findings

Attitude towards performance assessment was measured in terms of the attitude towards using performance assessment in classroom, negative attitudes towards performance assessment and attitudes towards self and peer assessment subscales in the performance assessment attitude scale [32] Table 2 presents the participants' mean scores with the standard deviations on attributions of each subscale.

According to the mean scores in Table 2, it can see that mean scores of 13 attributions in attitudes towards using performance assessment subscale are between 2.76 and 3.75 and mean scores of 11 attributions in negative attitudes towards performance assessment subscale are between 2.79 and 3.66. Besides, it can be said that mean scores of 6 attributions in attitudes towards self and peer assessment subscale are between 3.28 and 3.57. Table 3 presents the participants' total mean scores with the standard deviations on each subscale.

Total mean scores of performance assessment attitude (PAA) is 95.73, attitudes towards using performance assessment in classroom (AUPAC) is 41.31, negative attitudes towards performance assessment (NAPA) is 34.05 and attitudes towards self and peer assessment (ASPA) is 20.37. By comparing these scores with those in Table 2, we can see that teachers' general attitude towards performance assessment and each subscales; AUPAC, NAPA and ASPA are at medium level.

In order to determine whether attitude scores differed between genders of teachers, an independent-sample t-test was conducted. The independent-sample t-test scores can be seen in Table 4.

The independent-sample t-test scores showed that in terms of gender there is no significant difference between the teachers' PAA (t=-0,689; p>0.05), AUPAC (t=0.54; p>0.05) and ASPA (t=0.825; p>0.05). But, in terms of gender there is significant difference between the teachers' NAPA (t=-2.280; p<0.05), According to the scores, female teachers have a little bit more negative attitude (x=34.86) towards performance assessment than males (x=33.24). On the other hand males have a little more negative attitude towards performance assessment than females.

Table 2. Descriptive statistics of mean scores with the standard deviations on attributions of each subscale

	Performance Assessment Attitude (PAA)	$\bar{x}$	ss
Attitudes towards Using Performance Assessment in Classroom (AUPAC)	I am great pleasure from preparing performance tasks	3.08	1.320
	I think that preparations of rubrics are necessary for performance assessment	3.28	1.286
	I think that it is very easy to preparation of performance tasks	3.07	1.323
	I think that it is important to using rubric for assessment of performance tasks	3.47	1.232
	I think to have developed myself thanks to performance assessment	3.06	1.419
	Performance assessment doesn't have any worth for me.	3.75	1.446
	I believe that student will learn better through performance assessment.	3.45	1.303
	I think that students level increase thanks to performance assessment	3.60	1.276
	I am great pleasure from application of performance assessment in classroom	2.76	1.327
	I'd like to apply performance assessment in classroom	2.94	1.356
	I get bored to apply performance assessment in classrooms continually	2.98	1.367
	If I did not have to apply performance tasks, I would not do it.	2.96	1.549
	Nevertheless I am not obligatory, I'd like to practice Performance in classroom	2.92	1.423
Negative Attitudes towards Performance Assessment (NAPA)	I think that performance assessment is very expensive.	3.07	1.377
	I think that performance assessment takes too much time	2.79	1.399
	I think that performance assessment is waste of time.	3.49	1.424
	I believe that students were extremely forced with performance tasks	3.27	1.325
	I don't like applying performance assessment in classroom.	3.05	1.408
	I think that it is very difficult to applicability of performance assessment	3.04	1.342
	I think that performance assessment is not appropriate for each students	2.23	1.381
	I think that portfolio assessment don't make any contributions for students	3.66	1.350
	I believe that portfolio assessment is waste of time.	3.25	1.435
	I believe that portfolio assessment are too expensive	3.07	1.377
	I think that self assessment forms are not necessary.	3.11	1.444
Attitudes towards Self and Peer Assessment (ASPA)	I believe that portfolio assessment make great contribution to education	3.57	1.311
	I think peer assessment improves to students.	3.28	1.340
	I think that using peer assessment forms are very important.	3.31	1.334
	I believe that self assessment forms must be used.	3.34	1.349
	I think peer assessment doesn't have any importance on students' development	3.34	1.364
	I believe that self assessment improves to students' critical thinking	3.53	1.342

Table 3. Descriptive statistics of the total scores for PAA and each subscale

	n	$\bar{x}$	ss
PAA	566	95.73	20.079
AUPAC	566	41.31	10.453
NAPA	566	34.05	8.478
ASPA	566	20.37	5.871

Table 4. Independent sample t-test scores in terms of genders

	Gender					
	Male (n=284)		Female (n=282)			
	$\bar{x}$	ss	$\bar{x}$	ss	*t*	*p*
PAA	95.15	21.157	96.32	18.950	-0.689	.491
AUPAC	41.34	10.702	41.29	10.214	0.54	.957
NAPA	33.24	9.062	34.86	7.779	-2.280	.023
ASPA	20.58	5.783	20.17	5.962	0.825	.410

In order to see whether attitudes of teachers' attitudes towards performance assessment differed in terms of ages, one-way between-groups ANOVA test was conducted. Table 5 provides the descriptive statistics on ages.

Table 5. Descriptive statistics on ages

	Ages							
	Under the age of 25 (n=134)		Between age of 25-34 (n=358)		Between age of 35-44 (n=52)		Over the age of 44 (n=22)	
	$\bar{x}$	ss	$\bar{x}$	ss	$\bar{x}$	ss	$\bar{x}$	ss
PAA	104.63	18.668	93.01	19.276	91.85	23.855	95.18	16.480
AUPAC	43.52	10.586	40.65	10.053	39.31	11.444	43.45	11.835
NAPA	38.70	7.255	32.34	7.971	34.35	10.969	32.73	6.204
ASPA	22.40	4.699	20.02	5.951	18.19	6.312	19.00	6.831

According to the mean scores in Table 5, it can be seen that teachers under the age of 25 years have more positive attitude in PAA (x=104.63), AUPAC (x= 43.52), NAPA (x= 32.34) and ASPA (x=22.4) than the other ones.

In order to see whether attitudes of teachers' towards performance assessment differed in terms of ages, one-way between-groups ANOVA test was conducted. The summary of one-way ANOVA is given in Table 6.

The ANOVA test scores in Table 6 showed that there are significant difference ($p<0.05$) in both PAA and its subscale such as AUPAC, NAPA and ASPA between ages.

In order to find out the source of the differences in performance assessment attitude and its subscales in the term of age, Scheffe test was used and scores are shown in Table 7.

As shown in Table 7 source of the difference in PAA and NAPA, ASPA subscales arise from between under the age of 25 and age of 25–34 and 35–44 ($p<0.05$). Besides, source of the difference in NAPA subscales arise from between teachers' under the age of 25 and over the age of 44 ($p<0.05$). According to the scores, it is said that teachers under the age of 25 have more positive attitude in PAA and NAPA, ASPA subscales than teachers' between age of 25–34 and 35–44. Furthermore, we can say that teachers' under the age of 25 have more positive attitude NAPA subscales than teachers over the age of 44.

Table 6. Summary of one-way ANOVA on ages

	Source	Sum of squares	df	Mean square	F	Sig.
PAA	Between groups	14054.873	3	4684.958	12.319	.000
	With in groups	213723.374	562	380.291		
	Total	227778.247	565			
AUPAC	Between groups	1122.403	3	374.134	3.469	.016
	With in groups	60607.618	562	107.843		
	Total	61730.021	565			
NAPA	Between groups	3988.189	3	1329.396	20.399	.000
	With in groups	36624.617	562	65.168		
	Total	40612.806	565			
ASPA	Between groups	886.378	3	295.459	8.932	.000
	With in groups	18590.215	562	33.079		
	Total	19476.594	565			

In order to see whether attitudes of teachers towards performance assessment differed in terms of professional experience, a one-way between-groups ANOVA test was conducted. Table 8 provides the descriptive statistics on teachers' professional experience.

According to the mean scores in Table 8, it can be seen that teachers less than 1 year experience have more positive attitude in PAA (x=101.55) and NAPA (x= 37.71) than the other ones. Besides, it is understood that teachers between 1–4 years experience have more positive attitude in AUPAC (x= 42.72) and ASPA (x=22.65) than the other ones.

In order to see whether attitudes of teachers' attitudes towards performance assessment differed in terms of professional experience, it was seen that the summary of one-way ANOVA is given in Table 9.

As the result of the ANOVA test shows there are significant difference ($p<0.05$) in PAA and its subscale such as NAPA and ASPA between professional experience of teachers. But, it is seen that there is not any significant difference ($p>0.05$) between AUPAC and professional experience of teachers.

In order to find out the source of the differences in performance assessment attitude and its subscales, Scheffe test was used and scores are shown in Table 10.

As shown in Table 10 sources of the difference in PAA and its subscale such as NAPA and ASPA arise from between teachers less than 1 year and between 5-9 years and over 10 years experience ($p<0.05$) and teachers between 1–4 years and 5-9 years and over 10 years experience ($p<0.05$). According to the scores, it is said that teachers both Less than 1 year and between 1-4 years experience have more positive attitude in PAA and NAPA, ASPA subscales than teachers between 5-9 years experience and over 10 years experience.

4. Discussion and conclusion

This study's aims are to determine examinations of teachers' attitudes towards performance assessment with respect to the different variables such as gender, age and professional experience. So, in this study, firstly; it was tried to investigate that what is the overall profile of teachers' attitudes towards performance assessment. Then, it was examined that whether there are effects teachers' gender, age and professional experiences on their performance assessment attitude. Therefore, results of this study were collected four categories. These categories were called as level of teachers' attitude towards performance assessment, effects of teachers' gender, age and professional experiences on their performance assessment attitude.

Table 7. Scheffe test scores on ages

Dependent - variable	Age of teachers	Others age of teachers	Mean difference	Std. Error	P
PAA	Under the age of 25	Between age of 25–34	11.62	1.975	.000*
		Between age of 35–44	12.78	3.186	.001*
		Over the age of 44	9.45	4.486	.220
	Between age of 25–34	Under the age of 25	-11.62	1.975	.000*
		Between age of 35–44	1.16	2.894	.984
		Over the age of 44	-2.18	4.283	.968
	Between age of 35–44	Under the age of 25	-12.78	3.186	.001*
		Between age of 25–34	-1.16	2.894	.984
		Over the age of 44	-3.34	4.960	.929
	Over the age of 44	Under the age of 25	-9.45	4.486	.220
		Between age of 25–34	2.18	4.283	.968
		Between age of 35–44	3.34	4.960	.929
AUPAC	Under the age of 25	Between age of 25–34	2.87	1.052	.059
		Between age of 35–44	4.21	1.697	.105
		Over the age of 44	.07	2.389	1.000
	Between age of 25–34	Under the age of 25	-2.87	1.052	.059
		Between age of 35–44	1.34	1.541	.860
		Over the age of 44	-2.81	2.281	.679
	Between age of 35–44	Under the age of 25	-4.21	1.697	.105
		Between age of 25–34	-1.34	1.541	.860
		Over the age of 44	-4.15	2.641	.482
	Over the age of 44	Under the age of 25	-.07	2.389	1.000
		Between age of 25–34	2.81	2.281	.679
		Between age of 35–44	4.15	2.641	.482
NAPA	Under the age of 25	Between age of 25–34	6.36	.818	.000*
		Between age of 35–44	4.36	1.319	.013*
		Over the age of 44	5.97	1.857	.016*
	Between age of 25–34	Under the age of 25	-6.36	.818	.000*
		Between age of 35–44	-2.01	1.198	.424
		Over the age of 44	-0.39	1.773	.997
	Between age of 35–44	Under the age of 25	-4.36	1.319	.013*
		Between age of 25–34	2.01	1.198	.424
		Over the age of 44	1.62	2.053	.891
	Over the age of 44	Under the age of 25	-5.97	1.857	.016*
		Between age of 25–34	0.39	1.773	.997
		Between age of 35–44	-1.62	2.053	.891
ASPA	Under the age of 25	Between age of 25–34	2.39	0.582	.001*
		Between age of 35–44	4.21	0.940	.000*
		Over the age of 44	3.40	1.323	.086
	Between age of 25–34	Under the age of 25	-2.39	0.582	.001*
		Between age of 35–44	1.82	0.854	.207
		Over the age of 44	1.02	1.263	.885
	Between age of 35–44	Under the age of 25	-4.21	0.940	.000*
		Between age of 25–34	-1.82	0.854	.207
		Over the age of 44	-0.81	1.463	.959
	Over the age of 44	Under the age of 25	-3.40	1.323	.086
		Between age of 25–34	-1.02	1.263	.885
		Between age of 35–44	0.81	1.463	.959

*p<0.05.

Level of teachers' attitude towards performance assessment: In this category, When it was investigated that total mean scores of performance assessment attitude and each subscales attitudes towards using performance assessment in classroom, negative attitudes towards performance assessment and attitudes towards self and peer assessment. It can see that teachers' general attitudes towards performance assessment and each subscale are at medium level. According to this result, it can be said that teachers have neither interested nor be far out on performance assessment. Result takes its source from application process of performance assessment is very new assessment method in Turkish educational system. Besides, it was thought that teachers have enough knowledge and experience on performance assessment. So, teachers have a little bit more positive attitude towards performance assessment. Similar results revealed some studies in literature. Some researchers as [66-74] were explained that teachers have not enough knowledge on performance assessment and teachers have a little positive opinion to using performance assessment. Besides, it was revealed that teachers have negative attitude towards performance assessment because of insufficient knowledge about performance assessment [3, 33, 75-78] and previous experiences with them when the execution was unsuccessful or the results were inconclusive [42].

Table 8. Descriptive statistics on professional experience

	Professional experience							
	Less than 1 years (n=110)		Between 1–4 years (n=178)		Between 5–9 years (n=196)		More 10 years (n=82)	
	$\bar{x}$	ss	$\bar{x}$	ss	$\bar{x}$	ss	$\bar{x}$	ss
PAA	101.55	19.314	100.64	18.892	90.33	19.619	90.22	20.082
AUPAC	41.82	9.936	42.72	9.867	40.35	10.962	39.90	10.875
NAPA	37.71	8.237	35.27	7.436	31.72	8.679	32.02	8.322
ASPA	22.02	4.722	22.65	5.096	18.26	5.989	18.29	6.087

Table 9. Summary of one-way ANOVA on professional experience

	Source	Sum of squares	df	Mean square	F	Sig.
PAA	Between groups	16224.835	3	5408.278	14.367	.000
	With in groups	211553.412	562	376.430		
	Total	227778.247	565			
AUPAC	Between groups	726.075	3	242.025	2.230	.084
	With in groups	61003.946	562	108.548		
	Total	61730.021	565			
NAPA	Between groups	3133.985	3	1044.662	15.665	.000
	With in groups	37478.821	562	66.688		
	Total	40612.806	565			
ASPA	Between groups	2456.005	3	818.668	27.031	.000
	With in groups	17020.589	562	30.286		
	Total	19476.594	565			

Effects of teachers' gender on their performance assessment attitude: In this category, one of the other results is to female teachers have more positive attitude towards performance assessment than male teachers. According to this result, as well as female teachers have more knowledge and experience on performance assessment, they have more practice on performance assessment than male ones. However; some researchers such as [33, 60, 67, 76,

77] explained that female teachers have not enough knowledge on performance assessment. Besides, in research of Kanatli [71], it was dictated that male teachers have more positive attitude than female teachers on measurement – assessment and male teachers think more sufficient than female on new measurement and assessment (performance assessment). In addition to this, from these expressions of researcher and result of this study, it can be understood that if teacher try to put into practice performance assessment in classroom, teachers' attitude towards performance assessment is increased. So, it can be said that female teachers in sample of study try to put into practice performance assessment.

Table 10. Scheffe test scores on professional experience

Dependent variable	Professional experience	Professional experience	Mean difference	Std. error	P
PAA	Less than 1 year	Between 1–4 years	0.91	2.353	.986
		Between 5–9 years	11.22	2.311	.000*
		Over 10 years	11.33	2.831	.001*
	Between 1–4 years	Less than 1 year	-0.91	2.353	.986
		Between 5–9 years	10.31	2.009	.000*
		Over 10 years	10.42	2.589	.001*
	Between 5–9 years	Less than 1 year	-11.22	2.311	.000*
		Between 1–4 years	-10.31	2.009	.000*
		Over 10 years	0.11	2.552	1.000
	Over10 years	Less than 1 year	-11.33	2.831	.001*
		Between 1–4 years	-10.42	2.589	.001*
		Between 5–9 years	-0.11	2.552	1.000
NAPA	Less than 1 year	Between 1–4 years	2.44	0.990	.110
		Between 5–9 years	5.98	0.973	.000*
		Over 10 years	5.68	1.191	.000*
	Between 1–4 years	Less than 1 year	-2.44	0.990	.110
		Between 5–9 years	3.55	0.846	.001*
		Over 10 years	3.25	1.090	.032*
	Between 5–9 years	Less than 1 year	-5.98	0.973	.000*
		Between 1–4 years	-3.55	0.846	.001*
		Over 10 years	-0.30	1.074	.994
	Over 10 years	Less than 1 year	-5.68	1.191	.000*
		Between 1–4 years	-3.25	1.090	.032*
		Between 5–9 years	0.30	1.074	.994
ASPA	Less than 1 year	Between 1–4 years	-0.63	0.667	.825
		Between 5–9 years	3.76	0.656	.000*
		Over 10 years	3.73	0.803	.000*
	Between 1–4 years	Less than 1 year	0.63	0.667	.825
		Between 5–9 years	4.40	0.570	.000*
		Over 10 years	4.36	0.734	.000*
	Between 5–9 years	Less than 1 year	-3.76	0.656	.000
		Between 1–4 years	-4.40	0.570	.000*
		Over 10 years	-0.04	0.724	1.000
	Over 10 years	Less than 1 year	-3.73	0.803	.000*
		Between 1–4 years	-4.36	0.734	.000*
		Between 5–9 years	0.04	0.724	1.000

Effects of teachers' age on their performance assessment attitude: In this category, one of the other result in this study is that teachers under the age of 25 have more positive attitude towards performance assessment and each subscale attitudes towards using performance assessment in classroom, negative attitudes towards performance assessment and attitudes towards self and peer assessment than the other ones. This result was supported by Kanatli [71]. Kanatli [71] expressed to teachers between 21–25 age have more positive attitude performance assessment than the others. That is to say, young teachers have more adaptation on performance assessment than old teachers. Performance assessment applications are very new in educational system. It was thought that this condition was the result from young teachers in this study who were graduated in recent years had well taught and practiced on new measurement and assessment mentality by academicians in university years. On the other hand the other old teachers who were graduated in past years may be lack of theoretical background on newly adopted assessment techniques [79, 80]. Many researches were dictated that teachers need to in-service education about performance assessment [33, 60, 67, 69-74, 76, 77, 81-85]. But, it was a few arrangements in-service education for teachers on performance assessment in Turkey [33, 74, 76, 85]. While young teachers want to participate to in-service education, old teachers don't want it. So, it was inevitable that old teacher have a little bit positive attitude performance assessment.

Effects of teachers' professional experiences on their performance assessment attitude: In this category, As a result of the study was revealed that teachers less than 1 year experience have more positive attitude performance assessment and negative attitude towards performance assessment subscale than the other ones. In addition to this, teachers between 1-4 years experience have more positive attitudes towards using performance assessment in classroom and attitudes towards self and peer assessment than the other ones. According to this result, teachers between 5-9 and over 10 years professional experience have a little bit more positive attitude towards performance assessment and each subscale than others. Reason of this condition, it was believed that teachers over 5 years professional experience are resist to reform in instructional program and its' measurement and assessment approach. So, it was thought that old teachers did not want to learn new knowledge on measurement and assessment approach. In this respect, it was normally accepted that old teachers have negative attitude performance assessment. In literature, it was expressed that old teachers did not want to learn new knowledge and resist to reforms [62, 86].

As conclude, teachers' performance assessment attitudes and attitudes towards using performance assessment in classroom, negative attitudes towards performance assessment and attitudes towards self and peer assessment subscale are at medium level. No significant differences were found ($p>0.05$) between gender sub-scales of performance assessment attitude apart from negative attitudes towards performance assessment sub-scale. Besides, teachers under the age of 25 years have more positive attitude performance assessment and each subscale than the other ones. In addition to this, teachers less than 5 years experience have more positive attitude performance assessment and each subscale than the other ones.

More recently many guiding research have been done by different researchers on teacher and student performances. These studies hold promise for the near future [87-96].

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