# An Investigation of Training Processes and Expectation Levels of Swimming Referees

Canan Gülbin Eskiyecek<sup>1</sup>

<sup>1</sup> School of Physical Education and Sport, Mardin Artuklu University, Mardin, Turkey

Correspondence: Canan Gülbin Eskiyecek, School of Physical Education and Sport, Mardin Artuklu University, Mardin, Turkey.

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#### **Abstract**

This study was aimed to investigate the opinions of licensed swimming referees within the structure of Turkey Swimming Federation about referee training process and determine the level of their expectations. The study group was randomly selected by a total of 212 swimming referees (95 female and 117 male), and attended Development Seminar for Swimming Referees which was held in Antalya in 2016. "The Review of Referee Training Process and The Survey of Expectation Levels" developed by Bahadır Kayışoğlu in 2008 was used as a data collection tool in the study. Necessary formal permissions were obtained from Turkish Swimming Federation for the scale applied to the referees. In the analysis of the data, t-test was used for binary comparisons, and one-way analysis of variance (ANOVA) was used for multiple comparisons. SPSS Statistics 24.0 was used in the analysis of the data. The p-value that was less than 0.05 was considered statistically significant. As a result of the research, it was found that some variables of swimming referees (age, gender, classification, professional experience, educational level, satisfaction level and the reasons to become a referee) have impacts on referees' training processes, so it was determined that the referees had both positive and negative opinions regarding the referee training process.

Keywords: swimming, refereeing, training process, expectation level

### 1. Introduction

The need for sports, which emerge in every sphere and period of human life, is presented as different sports for people. Swimming is one of the most basic sports branches. Swimming is a sport which is carried out by thousands of people interested in swimming and under the direction of the referees who have received sports and referee training (Dölek, 2010).

Athlete, spectator, referee and manager are the must for all sports branches. Each of them is undoubtedly very important. In addition to this, referees, especially those who struggle with athletes in the field and make decisions that will determine the result of the competition, are the main elements for sports branches. The role of referee in sports competition cannot be denied. In the case of competition in sports, the referee is the expert who can determine right decisions and allocate justice during the competition (Güner, 2009; Karaçam, 2013). Considering the legal personality represented by the referee, the fact that the referee is in the executive position and allocates justice increases the role of referees (Ekmekçi, 2008).

Education, as in many areas, takes an important place in sports and refereeing. An institution that wishes to achieve successful results is obliged to train its own personnel. All institutions and organizations are obliged to provide in-service training. Otherwise, it is inevitable that institutions and organizations will survive (Kayışoğlu, 2008).

Education is one of the prerequisites for the establishment and success of refereeing (Özdemir, 2002). In addition, experience is also the most expensive training process.

In order to be successful in the competitions, the referees should check and develop them in order to update the efficiency of the training they receive in all stages such as regulations, human relations, effective communication, management and organization, effective use of body language, and crisis and conflict management (Karaçam, 2013).

The main task of a swimming referee is to control that rules and regulations are applied during the interview and to ensure that all swimmers have equal and fair competition conditions to the greatest extent possible. The referee

should make his decisions quickly and decisively, be knowledgeable and ensure that they are fair to all participants. Therefore, the training given to referee is very important, and it is necessary to understand and respond to their expectations.

Unlike all other sports branches, the number of referees involved in swimming competitions is quite high. It is very important that these referees run in a responsible and disciplined manner. In this context, this study is aimed to examine the opinions of licensed swimming referees within the structure of Turkey Swimming Federation about referee training process and determine the level of their expectations.

#### 2. Methods

#### 2.1 Research Model

In the study, descriptive research approach is used as basic research method. Descriptive survey models, which are one of the quantitative research types, are research models which aim to investigate the current situation in a subject.

## 2.2 Research Group

Research group is composed of 6 FINA, 74 National and 132 Provincial swimming referees, a total of 212 swimming referees (95 female and 117 male), who actively serve in Turkey, and attended Development Seminar for Swimming Referees which was held between 10th-13rd March 2016 in Antalya.

# 2.3 Methods of Data Collection

In this research, "Survey" method was used for the collection of data. The data used in the research were obtained by the researcher personally by conducting a questionnaire to individuals who attended Development Seminar for Swimming Referees in Antalya. Necessary formal permissions were obtained from Turkish Swimming Federation for the scale applied to the referees.

The questionnaire used in the research, "The Review of Referee Training Process and The Survey of Expectation Levels", was developed by Bahadir KAYIŞOĞLU in 2008. Accordingly, it can be mentioned that the tool used is reliable. In this context, the survey data were obtained from the "Examination of the training process of swimming referees and their expectation levels". The Cronbach's alpha value ( $\alpha$ ) was 819 for the 29-Item part of the questionnaire, which was prepared by using 5-point Likert scale.

The data collection tool used in the study was based around a core set of 6 sections including demographic information. In the first part of the questionnaire, there are 9 questions about the demographic information of the referees, in the second part there are 2 questions about the opinions of the referees about candidate referee training courses, in the third part there are 8 questions about the opinions of the referees about the proficiency of instructors, in the fourth part there are 4 questions about the opinions of the referees on the educational environment, in the fifth part there are 14 questions about the opinions of the referees on the planning of the training seminars, and in the sixth part there is one question about the opinions of referees on the evaluation of the training seminars. The respondents are asked to pick only one answer.

# 2.4 Data Analysis

SPSS Statistics 24.0 was used in the analysis of the data. The frequency (f) and percentage (%) distributions of the information obtained from the questions in the demographic information part of the questionnaire were examined and Mean  $\pm$  Sd was calculated for descriptive statistics. In other parts of the questionnaire, t-test and one-way ANOVA were used. LSD test was used for homogeneous variances and Tamhane Test was used for non-homogeneous groups. In addition, ANOVA test was applied for the variables in the subgroups that variables were separately collected according to the groups. The p-value that was less than 0.05 was considered statistically significant.

## 3. Results

The findings of the research results are presented in the tables below and evaluated.

Table 1. Percentage frequency distribution of demographic information of the research group

Variables	Rank	Subcategories	Frequency (f)	Percentage (%)
	1	22 years and under	13	6.1
	2	23-26 years	35	16.5
Age	3	27-30 years	33	15.6
	4	31-34 years	16	7.5
	5	35 years and above	115	54.2
Gender	1	Female	95	44.8
Gender	2	Male	117	55.2
Marital Status	1	Married	110	52.4
Marital Status	2	Single	101	47.6
	1	Provincial Referee	132	62.3
Classifications	2	National Referee	74	34.9
	3	FINA	6	2.8
	1	1-3 years	74	34.9
	2	4-6 years	40	18.9
	3	7-9 years	14	6.6
Professional Experience	4	10-12 years	19	9.0
	5	13-15 years	11	5.2
	6	16-18 years	8	3.8
	7	19 years and above	46	21.7
	1	High School	51	24.1
	2	Associate Degree	106	50.0
Education Level	3	Bachelor's Degree	34	16.0
	4	Master's Degree	20	9.4
	5	Doctorate	1	0.5
	1	Social Activity	64	30.2
	2	Popularity	-	-
The Reasons to Become a Referee	3	Ex-swimmer	32	15.1
	4	Additional Work	7	3.3
	5	Passion	109	51.4
	1	Satisfied	205	96.7
C-4:-f4: Y1	2	Undecided	7	3.3
Satisfaction Level	3	Not Satisfied	-	-
		Total	212	100

As seen in Table 1, 44.8% of the participants were female and 55.2% of those were male; 52.4% of the participants were married and 47.6% of those were single. When the demographic information of the research group is examined, it is seen that 54.2% of the participants were 35 years of age and older, 62.3% of the participants were provincial referee, 34.9% of the participants had 1-3 years professional experience, 21.7% of the participants had more than 19 years professional experience. When educational levels of participants are considered, it is also observed that 50% of the participants completed associate degree. In addition, 51.4% of the participants serve as a referee because they refereeing as passion, and 96.7% of them are satisfied to be a referee.

Table 2. Percentage frequency distribution related to referees' opinion on the efficiency of candidate

Opinions		Stronolv	Disagree		Agree Slightly	Aoree	Moderately		Strongly Agree		Totally Agree
Items on the Efficiency of Candidate Referee Training Courses	N	f	%	f	%	f	%	f	%	f	%
1. Adequate practical training is provided in candidate referee training courses	212	-	-	7	3.3	68	32.1	71	33.5	66	31.1
2. The number of trainees in candidate referee training courses is suitable for a good educational environment	212	70	33.0	82	38.7	25	11.8	20	9.4	15	7.1

<sup>\*</sup> p<0.05.

When referees' opinion on the efficiency of candidate referee training courses are examined in Table 2, it is seen that the referees report positive opinion in I-1 (Item 1), but negative opinion in I-2. Participation percentages of these items are 64.6% in I-1 and 71.7% in I-2, respectively.

Table 3. Percentage frequency distribution related to referees' opinion on proficiency of instructors

Opinions		Strongly	Disagree		Agree Slightly	Aoree	Moderately		Strongly Agree		Totally Agree
Items on the Proficiency of Instructors	N	f	%	f	%	f	%	f	%	f	%
3. Instructors are willing to work overtime with referees when needed	212	1	0.5	8	3.8	38	17.9	37	31.6	98	46.2
4. Instructors are aware of individual differences of the referees, and they plan course accordingly	212	79	37.3	89	42.0	24	11.3	18	8.5	2	0.9
5. Instructors plan and implement course activities at a high level	212	141	66.5	54	25.5	6	2.8	7	3.3	4	1.9
6. Instructors influence referees with their positive attitudes and behaviors	212	133	62.7	44	20.8	15	7.1	12	5.7	8	3.8
7. Instructors give importance to the opinions and ideas of the referees	212	103	48.6	63	29.7	27	12.7	15	7.1	4	1.9
8. Instructors provide an enjoyable time with activities planned in the educational environment	212	18	8.5	26	12.3	63	29.7	54	25.5	51	24.1
9. Instructors who take part in training seminars have academic knowledge and experience appropriate to the seminar	212	3	1.4	6	2.8	43	20.3	77	36.3	83	39.2
10. Instructors use different learning and teaching methods in training seminars	212	101	47.6	80	37.7	13	6.1	14	6.6	4	1.9

<sup>\*</sup> p<0.05.

When referees' opinions on the proficiency of the instructors are examined in Table 3, the items that report positive opinion are I-3 and I-9, respectively. The percentage of referees' participation in these items is 77.8% and 75.5%, respectively. The items reporting negative opinions are I-4, I-5, I-6, I-7 and I-10, respectively. Participation percentages of these items are 79.8%, 92.0%, 83.5%, 78.3% and 85.3%, respectively.

Table 4. Percentage frequency distribution related to referees' opinion on educational environment

Opinions		Strongly	Disagree		Agree Slightly	Aoree	Moderately		Strongly Agree		Totally Agree
Items on the Efficiency of Educational Environment	N	f	%	f	%	f	%	f	%	f	%
11. The buildings and facilities owned by the institution are suitable for education	212	79	37.3	87	41.0	26	12.3	13	6.1	7	3.3
12. The seminar building, and equipment are well organized for the use of instructors and referees	212	121	57.1	54	25.5	19	9.0	11	5.2	7	3.3
13. The referees participating in the training seminars create a good educational environment among themselves	212	8	3.8	29	13.7	63	29.7	55	25.9	57	26.9
14. The physical structure of the classroom environments where training seminars are conducted is suitable for good education	212	83	39.2	58	27.4	30	14.2	22	14.2	19	9.0

<sup>\*</sup> p<0.05.

When referees' opinions on the efficiency of the educational environment are examined in Table 4, the items that report negative opinions are I-11, I-12 and I-14, respectively. Percentage of participation in these items is 78.3%, 82.6% and 66.6%, respectively.

Table 5. Percentage Frequency distribution related to referees' opinion on planning of training seminars

Opinions		Strongly	Disagree		Agree Slightly	Аотее	Moderately		Strongly Agree	;	Totally Agree
Items on Planning of Training Seminars	N	f	%	f	%	f	%	f	%	f	%
15. The objectives of the training seminar are clearly defined	212	3	1.4	3	1.4	26	12.3	54	5.5	126	59.4
16. The courses given in the training seminars are clear and understandable	212	152	71.7	44	20.8	7	3.3	5	2.4	4	1.9
17. Different abilities and educational levels of referees are											
taken into consideration during the preparation and conduction	212	118	55.7	52	24.5	22	10.4	7	3.3	13	6.1
of training seminars											
18. The date of training seminars is suitable for referees	212	9	4.2	31	14.6	72	34.0	45	21.2	55	25.9
19. Managers, instructors and referees are aware of the program activities conducted within the institution	212	2	0.9	22	10.4	65	30.7	80	37.7	43	20.3
20. Managers, instructors and referees collectively participate in the decision-making process related to training seminars	212	6	2.8	29	13.7	53	25.0	70	33.0	54	25.5
within the institution											
21. Training seminar program is organized to improve teamwork skills	212	12	5.7	36	17.0	69	32.5	59	27.8	36	17.0
22. Opinions of the experts were taken during the planning of training program	212	3	1.4	28	13.2	67	31.6	80	37.7	34	16.0
23. Courses given in training seminars are planned in an orderly manner	212	3	1.4	16	7.5	49	23.1	90	42.5	54	25.5
24. Various measurement tools were used to determine the needs of the referees during the preparation of training	212	1	0.5	18	8.5	58	27.4	79	37.3	56	26.4
programs	212		0.5	10	0.5	50	27.1	,,	37.3	50	20.1
25. Managers exhibit positive attitudes and behaviors in solving problems related to the training seminar	212	2	0.9	9	4.2	53	25.0	86	40.6	62	29.2
26. The training program in the seminars is clearly identified and submitted to the referees' information	212	2	0.9	3	1.4	32	15.1	84	39.6	91	42.9
27. Introductory documents are prepared for each training seminar	212	4	1.9	26	12.3	91	42.9	53	25.0	38	17.9

28. The content of the training seminars is enough to meet the	212	17	9.0	20	127	71	22.5	57	26.0	20	17.9
deficiencies of the referees	212	1 /	8.0	29	13.7	/ 1	33.3	31	20.9	30	17.9

<sup>\*</sup> p<0.05.

When referees' opinion on the planning of the training seminars are examined in Table 5, the items that express positive opinion are I-15, I-19, I-22, I-23, I-24, I-25 and I-26, respectively. The percentages of participation in these items are 64.9%, 58%, 53.7%, 67%, 63.7%, 69.8%, 82.5% and 75.5%, respectively. Items reporting negative opinions are I-16 and I-17, respectively. The percentage of referees' participation in these items is 92.5% and 80.2%, respectively.

Table 6. Percentage frequency distribution related to referees' opinion on evaluation of training seminars

Opinions			Strongly Disagree		Agree Slightly		Agree Moderately		Strongly Agree		Totally Agree
Items on Evaluation of Training Seminars	N	f	%	f	%	f	%	f	%	f	%
29. Evaluation activities are carried out at the end of implementation	212	7	3.3	27	12.7	58	27.4	63	29.7	57	26.9

<sup>\*</sup> p<0.05.

When referees' opinions on the training seminars are examined in Table 6, it is seen that the referees give a positive opinion in I-29. The percentage of referees' participation in this item is 56.6%.

Table 7. One-way ANOVA test results related to professional experience of swimming referees

Opinions	Experience	N	X	Sd	F	p
	1-3 years	74	46.6757	7.15792		
	4-6 years	40	50.6250	8.72276		
	7-9 years	14	42.8571	7.63451		
O : :	10-12 years	19	44.6316	8.34806		
Opinions on Planning of	13-15 years	11	52.0000	9.14330	3.333	.004*
Training Seminars	16-18 years	8	50.8750	5.11126		
	19 years and above	46	48.7174	8.30706		
	Total	212	47.8632	8.17377		

Least Significant Difference (LSD) Test

According to duration of refereeing, significant difference was observed between 1-3 and 4-6 years, 1-3 and 13-15 years, 4-6 and 7-9 years, 4-6 and 10-12 years, 7-9 and 13-15 years, 7-9 and 16-18 years, 7-9 and 19 years and above, and 10-12 and 13-15 years

In Table 7, significant differences were found in the comparison of referees' opinion on the planning of the training seminars and the duration of refereeing (p<0.05), and this difference was observed between 1-3 and 4-6 years, 1-3 and 13-15 years, 4-6 and 7-9 years, 4-6 and 10-12 years, 7-9 and 13-15 years, 7-9 and 16-18 years, 7-9 and 19 years and above, and 10-12 and 13-15 years.

<sup>\*</sup> p<0.05.

Table 8. One-way ANOVA test results according to the variable of educational level of swimming referees

Opinions	Educational Level	N	X	Sd	F	p
O d. Em	High School	51	10.5098	3.33690		
	Associate Degree	34	9.5294	2.31249		
Opinions on the Efficiency of the	Bachelor's Degree	107	8.9439	2.18844	4.204	.007*
Educational Environment	Master's Degree	20	9.9000	3.37015		
	Total	212	9.5047	2.70597		

Difference (Tamhane Test)

In terms of the variable of educational level, significant difference was found between high school and bachelor's degree

In Table 8, significant difference was found between high school graduates and bachelor's degree graduates when comparing the opinions of the referees on the efficiency of educational environment and educational level (p<0.05).

Table 9. T-test results related to the variable of satisfaction level of swimming referees

Opinions	Satisfaction Level	N	X	Sd	t	p
Oninians on Planning of Training	Satisfied	205	48.0780	8.15979		
Opinions on Planning of Training Seminars	Undecided	7	41.5714	6.16055	2.087	.038*
	Total	212	47.8632	8.17377		

<sup>\*</sup> p<0.05.

In Table 9, significant difference was found between referees' opinion on the variables of planning of the training seminars and satisfaction levels of referees (p<0.05). It was observed that average of those who are satisfied to be referee is higher than the average of undecided ones.

Table 10. One-way ANOVA test results related to the variable of age of swimming referees

Items	Age Group	X	Sd	F	p	LSD Test
						Significant difference was
14. The physical structure of	22 years and under	3.0769	1.55250			found between 22 years and
the classroom environments	23-26	1.9714	1.01419			under and 23-26 years, 22 years
where training seminars are	27-30	1.8182	1.18466	2.922	.022*	and under and 27-30 years, 22
conducted is suitable for good	31-34	2.0625	1.23659			years and under and 31-34
education	35 years and above	2.3478	1.35752			years, and 27-30 years and 35
						years and above
	22 years and under	2.1538	1.2142			Significant difference was
16. The courses given in the	23-26	1.4571	3.6572			found between 22 years and
training seminars are clear	27-30	1.3939	2.89928	3.870	.005*	under and 23-26 years, 22 years
and understandable	31-34	1.6875	1.2500			and under and 27-30 years, 22
	35 years and above	1.2957	0.67504			years and under and 35 years
						and above

<sup>\*</sup> p<0.05.

In Table 10, it was observed that there was a significant difference between the variable of age, and the referees' opinion that the physical structure of the classroom environments where training seminars are conducted is suitable for good education (p<0.05), and this difference was observed between 22 years and under, and 23-26 years; 22 years and under, and 27-30 years; 22 years and under, and 31-34 years; and 27-30 years, and 35 years and above.

In Table 10, it was observed that there was a significant difference between the variable of age, and the referees' opinion that the courses given in the training seminars are clear and understandable (p<0.05), and this difference was observed between 22 years and under, and 23-26 years; 22 years and under, and 27-30 years; 22 years and

<sup>\*</sup> p<0.05.

under, and 35 years and above.

Table 11. T-test results related to gender variable of swimming referees

Items	Gender	X	Sd	t	p
22. Opinions of the experts were taken	Female	3.6842	.95942	2.015	0.45*
during the planning of training program	Male	3.4188	.94904	2.015	.045*

<sup>\*</sup> p<0.05.

In Table 11, it was observed that there was a significant difference between the variable of gender, and the referees' opinion that opinions of the experts were taken during the planning of training program (p<0.05) and accordingly, it was observed that female referees participated in the opinion of the experts more than the male referees in terms of planning of the program.

Table 12. One-way ANOVA test results related to the variable of classification of swimming referees

Items	Classifications	X	Sd	F	p	Difference (LSD)
23. Courses given in	Provincial	3.7121	.96922			C::::::
training seminars are	National	4.0000	.87586	3.147	045*	Significant difference was found between Provincial and National
planned in an orderly	International (FINA)	4 2222	.81650	3.14/	.045*	Referees
manner	international (FINA)	4.3333	.81030			Keielees

In Table 12, it was observed that there was a significant difference between the variable of referees' classification, and the referees' opinion that lessons given in training seminars are planned in an orderly manner (p<0.05), and this difference was observed between the provincial and national referees.

Table 13. One-way ANOVA test results related to variable of professional experience of swimming referees

Items	Professional Experience	X	Sd	F	P	Difference (LSD)		
	1-3 years	3.7432	.84498					
	4-6 years	4.3250	.82858	_				
1. Adequate practical	7-9 years	3.8571	.86444			Significant difference was found between		
training is provided in	10-12 years	3.8421	.89834	2.152	.049*	1-3 and 4-6 years, 4-6 and 10-12 years, 4-6		
referee training courses	13-15 years	4.0909	.94388	_		years and 19 years and above		
	16-18 years	4.0000	.75593					
	19 years and above	3.8696	.88465					
	1-3 years	3.3108	1.18120					
8. Instructors provide an enjoyable time with activities planned in the enjoyable time with activities planned in the enjoyable time with activities planned in the enjoyable time with en	· ·							
	7-9 years	3.5000	.94054	_	.003*	and 10-12 years, 10-12 and 13-15 years, 13-15 and 16-18 years, 4-6 years and 19 years and above, and 13-15 years and 19		
3 3	10-12 years	3.1579	1.16729	3.468				
	13-15 years	4.3636	.80904					
educational environmen	16-18 years	3.2500	1.03510	_				
	19 years and above	3.1087	.38609			years and above		
	1-3 years	3.3919	1.14458	_				
	16-18 years   4.0000   .75593   19 years and above   3.8696   .88465							
8. Instructors provide an enjoyable time with activities planned in the educational environment  10-12 years 3.5000 .94054  11-15 years 3.1579 1.16729  11-15 years 3.2500 1.03510  19 years and above 3.1087 .38609  13. The referees participating in the training seminars create a good educational  10-12 years 3.9250 1.03510  10-12 years 3.9286 .99725  10-12 years 3.0526 1.26814  2.328 .034* 1-3 and 4-6 years, 1-3 and and 10-12 years, 10-12 and and 10-12 years, 10-12 and 13-15 and 16-18 years, 4-9 years and above, and 13-15 years and above and 13-15 and 16-18 years, 4-6 years, 4-6 years, 1-3 and 4-6 years, 4-6 and 13-15 years and above and 13-15 years and abov	Significant difference was found between							
C	10-12 years	3.0526	1.26814	2.328	.034*	1-3 and 4-6 years, 4-6 and 10-12 years, 7-9		
environment among themselves	13-15 years	4.0909	1.04447	_		and 10-12 years, 10-12 and 13-15 years		
	16-18 years	3.5000	1.19523					
	19 years and above	3.6087	1.14462					
	1-3 years	3.1892	1.14288		4 002*	Significant difference was found between		
21. Training seminar	4-6 years	3.7000	.99228	2.704		1-3 and 4-6 years, 1-3 and 13-15 years, 4-6		
program is organized to	7-9 years	2.6429	1.15073	3.704	.002*	and 7-9 years, 4-6 and 10-12 years, 7-9		
improve teamwork skills	10-12 years	2.7895	1.08418	_		and 13-15 years, 7-9 and 16-18 years,		

_	13-15 years	4.0000	1.09545	_		10-12 and 13-15 years, 7-9 years and 19		
_	16-18 years	3.6250	.51755	_		years and above, and 10-12 years and 19		
	19 years and above	3.4783	1.06956			years and above		
_	1-3 years	3.2838	.89932	_		Significant difference was found between		
_	4-6 years	3.9000	1.08131			1-3 and 4-6 years, 1-3 and 13-15 years, 1		
22. Opinions of the	7-9 years	3.0000	.87706	_		years and 19 years and above, 4-6 and 7-years, 4-6 and 10-12 years, 7-9 and 13-1		
experts were taken	10-12 years	3.2105	.91766	- - 4276	000*			
during the planning of 13.	13-15 years	4.0000	.89443	4.270	.000	years, 7-9 and 16-18 years, 10-12 and		
training program	16-18 years	3.8750	.64087			13-15 years, 7-9 years and 19 years and		
	19 years and above	3.7609	.84813			above, and 10-12 years and 19 years and above		
_	1-3 years	3.5946	.93514	_		Significant difference was found between		
• • • • • •	4-6 years	4.2250	.89120			1-3 and 4-6 years, 1-3 and 13-15 years, 1-		
•	7-9 years	Sear   3.6250   .51755   years and above, and 10-12 years and above	years and 19 years and above, 4-6 and 7-9					
1-3 years   3.2838   8.89932   Significant difference was   4-6 years   3.9000   1.08131   7-9 years   3.0000   8.7706   10-12 years   3.2105   9.1766   10-12 years   3.2105   9.1766   13-15 years   4.0000   8.89443   1-3 and 4-6 years, 1-3 and 19 years and 19 years and above   16-18 years   3.8750   6.4087   19 years and above   3.7609   8.4813   3.8750   6.4087   3.5946   9.3514   4.6 years   4.2250   8.9120   7-9 years   3.2055   1.03166   3.994   0.01*   years, 4-6 and 10-12 years   3.205   3.7699   3.945   3.946   0.01*   years, 4-6 and 10-12 years   3.205   3.7432   8.7681   3.946   0.01*   years, 4-6 and 10-12 years, 4-6 and 10-12 years   3.243   3.89258   3.243   3.24	years, 4-6 and 10-12 years, 7-9 and 13-15							
	13-15 years	4.4545	.68755	_		years, 10-12 and 13-15 years, 10-12 and		
manner –	16-18 years	4.2500	.70711	_		16-18 years, and 10-12 years and 19 yea		
_	19 years and above	3.9565	.84213	_		and above		
	1-3 years	3.7432	.87681			Significant difference was found between		
	4-6 years	4.2250	.91952	_	.001*	1-3 and 4-6 years, 1-3 and 7-9 years, 1-3 and 10-12 years, 4-6 and 7-9 years, 4-6 and 10-12 years, 7-9 and 13-15 years, 7-9		
	7-9 years	3.2143	.89258	3.946				
	10-12 years	3.2632	1.04574					
-	13-15 years	4.1818	.75076	_		years and 19 years and above, 10-12 and		
	16-18 years	3.7500	.70711	_		13-15 years, and 10-12 years and 19 years		
programs	19 years and above	3.8696	.93354	_		and above		
	1-3 years	3.8243	.76495			Significant difference was found between		
25. Managers exhibit	4-6 years	4.2500	.98058	<del>-</del>	_	1-3 and 4-6 years, 1-3 and 10-12 years, 4-		
positive attitudes and	7-9 years	3.4286	.75593	_		and 7-9 years, 4-6 and 10-12 years, 7-9		
behaviors in solving	10-12 years	3.3684	111607	5.138	.000*	and 13-15 years, 7-9 and 16-18 years, 7		
problems related to the	13-15 years	4.2727	.90453	_		years and 19 years and above, 10-12 and		
training seminar	16-18 years	4.2500	.46291	_		13-15 years, 10-12 and 16-18 years, and		
_	19 years and above	4.0652	.82737	_		10-12 years and 19 years and above		
	1-3 years	3.2703	.79893		.005*			
27. Introductory documents are prepared for each training seminar	4-6 years	3.8750	.91111	_				
	7-9 years	2.8571	.86444	_		Tamhane TestSignificant difference was		
	10-12 years	3.4211	1.07061	3.248		found between 1-3 and 4-6 years, 4-6 and		
		3 0001	1 30035	. 3.2.0		•		
for each training seminar	13-15 years	3.7071	1.50055			7-2 years		
for each training seminar	13-15 years 16-18 years			_		7-7 years		

<sup>\*</sup> p<0.05.

In Table 13, it was observed that there was a significant difference between the variable of referees' professional experience, and the referees' opinion that adequate practical training is provided in referee training courses (p<0.05), and this difference was observed between 1-3 and 4-6 years, 4-6 and 10-12 years, 4-6 years and 19 years and above.

In Table 13, it was observed that there was a significant difference between the variable of referees' professional experience, and the referees' opinion that instructors provide an enjoyable time with activities planned in the educational environment (p<0.05), and this difference was observed between 1-3 and 4-6 years, 1-3 and 13-15 years, 4-6 and 10-12 years, 10-12 and 13-15 years, 13-15 and 16-18 years, 4-6 years and 19 years and above, and 13-15 years and 19 years and above.

In Table 13, it was observed that there was a significant difference between the variable of referees' professional experience, and the referees' opinion that the referees participating in the training seminars create a good educational environment among themselves (p<0.05), and this difference was observed between 1-3 and 4-6 years,

4-6 and 10-12 years, 7-9 and 10-12 years, 10-12 and 13-15 years.

In Table 13, it was observed that there was a significant difference between the variable of referees' professional experience, and the referees' opinion that training seminar program is organized to improve teamwork skills (p<0.05), and this difference was observed between 1-3 and 4-6 years, 1-3 and 13-15 years, 4-6 and 7-9 years, 4-6 and 10-12 years, 7-9 and 13-15 years, 7-9 and 16-18 years, 10-12 and 13-15 years, 7-9 years and 19 years and above, 10-12 years and 19 years and above.

In Table 13, it was observed that there was a significant difference between the variable of referees' professional experience, and the referees' opinion that opinions of the experts were taken during the planning of training program (p<0.05), and this difference was observed between 1-3 and 4-6 years, 1-3 and 13-15 years, 1-3 years and 19 years and above, 4-6 and 7-9 years, 4-6 and 10-12 years, 7-9 and 13-15 years, 7-9 and 16-18 years, 10-12 and 13-15 years, 7-9 years and 19 years and above.

In Table 13, it was observed that there was a significant difference between the variable of referees' professional experience, and the referees' opinion that lessons given in training seminars are planned in an orderly manner (p<0.05), and this difference was observed between 1-3 and 4-6 years, 1-3 and 13-15 years, 1-3 years and 19 years and above, 4-6 and 7-9 years, 4-6 and 10-12 years, 7-9 and 13-15 years, 10-12 and 13-15 years, 10-12 and 16-18 years, 10-12 years and 19 years and above.

In Table 13, it was observed that there was a significant difference between the variable of referees' professional experience, and the referees' opinion that various measurement tools were used to determine the needs of the referees during the preparation of training programs (p<0.05), and this difference was observed between 1-3 and 4-6 years, 1-3 and 7-9 years, 1-3 and 10-12 years, 4-6 and 7-9 years, 4-6 and 10-12 years, 7-9 and 13-15 years, 7-9 years and 19 years and above, 10-12 and 13-15 years, 10-12 years and 19 years and above.

In Table 13, it was observed that there was a significant difference between the variable of referees' professional experience, and the referees' opinion that managers exhibit positive attitudes and behaviors in solving problems related to the training seminar (p<0.05), and this difference was observed between 1-3 and 4-6 years, 1-3 and 10-12 years, 4-6 and 7-9 years, 4-6 and 10-12 years, 7-9 and 13-15 years, 7-9 and 16-18 years, 7-9 years and 19 years and above, 10-12 and 13-15 years, 10-12 and 16-18 years, 10-12 years and 19 years and above.

In Table 13, it was observed that there was a significant difference between the variable of referees' professional experience, and the referees' opinion that introductory documents are prepared for each training seminar (p<0.05), and this difference was observed between 1-3 and 4-6 years, and 4-6 and 7-9 years.

Table 14. One-way ANOVA test results related to the variable of educational level of swimming referees

Items	Education Level	X	Sd	F	p	Difference (LSD)		
	High School	1.9804	1.06752		.046*	Significant difference was found		
7. Instructors give	Associate Degree	1.8824	1.03762	2.707				
importance to the opinions	Bachelor's Degree	1.6729	.92935			between bachelor's degree and		
and ideas of the referees	Master's Degree	2.3000	1.21828			master's degree		
	Total	1.8396	1.02237					
11 77 1 11 1	High School	2.3333	1.21106					
11. The buildings and	Associate Degree	2.0294	1.02942			Tamhane Test Significant difference was found between high school and bachelor's		
facilities owned by the institution are suitable for	Bachelor's Degree	1.7850	.85812	3.485	.017*			
education	Master's Degree	1.9500	1.09904					
education	Total	1.9717	1.02071			degree		
17. Different abilities and	High School	2.2157	1.40447					
educational levels of	Associate Degree	1.7353	.99419			Tamhane Test		
referees are taken into	Bachelor's Degree	1.5981	.96992	3.566	.015*	Significant difference was found		
consideration during the	Master's Degree	1.9000	1.29371	3.300	.013	between high school and bachelor's		
oreparation and conduction of training seminars	Total	1.7972 1.14428		degree				
18. The date of training seminars is suitable for referees	High School	3.7843	1.20522			Significant difference was found		
	Associate Degree	3.5294	.96091		.021*	between high school and master's		
	Bachelor's Degree	3.4766	1.12724	3.296		degree, associate degree and master's		
	Master's Degree	2.8500	1.22582			degree, bachelor's degree and master'		
	Total	3.5000	1.14990			degree		

<sup>\*</sup> p<0.05

In Table 14, it was observed that there was a significant difference between the variable of referees' educational level, and the referees' opinion that instructors give importance to the opinions and ideas of the referees (p<0.05), and this difference was observed between bachelor's degree and master's degree.

In Table 14, it was observed that there was a significant difference between the variable of referees' educational level, and the referees' opinion that the buildings and facilities owned by the institution are suitable for education (p<0.05), and this difference was observed between high school and bachelor's degree.

In Table 14, it was observed that there was a significant difference between the variable of referees' educational level, and the referees' opinion that different abilities and educational levels of referees are taken into consideration during the preparation and conduction of training seminars (p<0.05), and this difference was observed between high school and bachelor's degree.

In Table 14, it was observed that there was a significant difference between the variable of referees' educational level, and the referees' opinion that the date of training seminars is suitable for referees (p<0.05), and this difference was observed between high school and bachelor's degree, associate degree and master's degree, and bachelor's degree and master's degree.

Table 15. One-way ANOVA test results related to swimming referees' reasons to become a referee

Items	The Reasons to Become a Referee	X	Sd	F	p	Difference
6. Instructors influence referees with their positive attitudes and behaviors	a. Social Activity b. Ex-swimmer c. Additional Work d. Passion	2.0313 1.5625 1.5714 1.4954	1.32100 .98169 .97590 .89880	3.608	.014*	Tamhane Test Significant difference was found between a and d
25. Managers exhibit positive attitudes and behaviors in solving problems related to the training seminar	a. Social Activity b. Ex-swimmer c. Additional Work d. Passion	3.8750 4.0625 3.0000 3.9817	.80672 1.01401 1.29099 .84964	3.061	.029*	LSD Test Significant difference was found between a and c, b and c, and d

<sup>\*</sup> p<0.05.

In Table 15, it was observed that there was a significant difference between the variable of referees' reason to become a referee, and the referees' opinion that instructors influence referees with their positive attitudes and behaviors (p<0.05), and it was observed between the options of a and d.

In Table 15, it was observed that there was a significant difference between the variable of referees' reason to become a referee, and the referees' opinion that managers exhibit positive attitudes and behaviors in solving problems related to the training seminar (p<0.05), and it was observed between the options of a and c, b and c, c and d

Table 16. T-test results related to satisfaction level of swimming referees

Items	Satisfaction Level	X	Sd	t	р
4. Instructors are aware of individual differences of	Satisfied	1.9024	.91300	2.050	0024
the referees, and they plan course accordingly	Undecided	3.0000	1.52753	-3.050	.003*
19. Managers, instructors and referees are aware of	Satisfied	3.6878	.94459		
the program activities conducted within the institution	Undecided	2.8571	.69007	2303	.022*
22. Opinions of the experts were taken during the	Satisfied	3.5659	.95579	2.331	.021*
planning of training program	Undecided	2.7143	.75593		
24. Various measurement tools were used to determine the needs of the referees during the	Satisfied	3.8341	.92451	2.329	.021*
preparation of training programs	Undecided	3.0000	1.15470	2.32)	.021
25. Managers exhibit positive attitudes and	Satisfied	3.9659	.86535		
behaviors in solving problems related to the training seminar	Undecided	2.8571	1.06904	3.309	.001*

<sup>\*</sup> p<0.05.

In Table 16, it was observed that there was a significant difference between the variable of referees' satisfaction level, and the referees' opinion that instructors are aware of individual differences of the referees, and they plan course accordingly (p<0.05), and it was observed that those who were undecided were more likely to participate in Item 4 than those who were satisfied.

In Table 16, it was observed that there was a significant difference between the variable of referees' satisfaction level, and the referees' opinion that managers, instructors and referees are aware of the program activities conducted within the institution (p<0.05), and it was observed that those who were satisfied were more likely to participate in Item 19 than those who were undecided.

In Table 16, it was observed that there was a significant difference between the variable of referees' satisfaction level, and the referees' opinion that opinions of the experts were taken during the planning of training program (p<0.05), and it was observed that those who were satisfied were more likely to participate in Item than those who were undecided.

In Table 16, it was observed that there was a significant difference between the variable of referees' satisfaction level, and the referees' opinion that various measurement tools were used to determine the needs of the referees

during the preparation of training programs (p<0.05), and it was observed that those who were satisfied were more likely to participate in Item 24 than those who were undecided.

In Table 16, it was observed that there was a significant difference between the variable of referees' satisfaction level, and the referees' opinion that managers exhibit positive attitudes and behaviors in solving problems related to the training seminar (p<0.05), and it was observed that those who were satisfied were more likely to participate in Item 25 than those who were undecided.

#### 4. Discussion

In the study, the opinions of licensed swimming referees, who actively serve in Turkish Swimming Federation, regarding referee training process were examined and their expectations levels were tried to be determined. In the study, I-26, I-3, I-9, I-25, I-23, I-15, I-1, I-24, I-19, I-29 and I-22 were the items that reported positive opinion, respectively. The percentages of participation in these items are 82.5%, 77.8%, 75.5%, 69.8%, 67.0%, 64.9%, 64.6%, 63.7%, 58%, 56.6% and 53.7%, respectively. On the other hand, I-16, I-5, I-10, I-6, I-12, I-17, I-4, I-7, I-11, I-2 and I-14 were the items that reported negative opinion, respectively. The percentages of participation in these items are 92.5%, 92.0%, 85.3%, 83.5%, 82.6%, 80.2%, 79.3%, 78.3%, 78.3%, 78.3%, 71.7% and 66.6%, respectively.

Although there are very few studies on the referees' training process and expectation levels, the findings are discussed and compared within the framework of literature.

4.1 The Results Related to Efficiency of Candidate Referee Training Courses

When referees' opinion on the efficiency of candidate referee training courses were examined, it was observed that adequate practical training is provided, but the number of trainees in the training courses was not suitable for a good educational environment. Considering the opinion that candidates receive adequate practical training in referee training courses, significant differences were found in all age groups of referees except between 13-15 and 16-18 years.

Karaçam (2013), similarly to this study, reported in his study on basketball referees that the opinion of the candidate referee training courses was adequate for all groups except referees whose professional experience was between 12-14 years.

4.2 The Results Related to the Proficiency of the Instructors Working in the Training Seminars

When the opinions of the referees about the proficiency of the instructors is examined, the referees think that instructors are willing to work overtime with referees when needed, and they have academic knowledge and experience appropriate to the seminar. However, referees reject the claims that instructors are aware of individual differences of the referees and they plan course accordingly, instructors plan and implement course activities at a high level, instructors give importance to the opinions and ideas of the referees, instructors affect the referees by exhibiting positive attitudes and behaviors, and instructors follow different learning and teaching methods in training seminars.

When similar studies in the literature are compared, it is remarkable that the referees evaluate instructors that they have academic qualification. Kayışoğlu et al. (2010), parallel to this study, stated in their studies on football referees that the instructors have academic knowledge and experience appropriate to the seminar, but they have deficiencies in planning the courses according to individual differences. In addition, contrary to this study, it was emphasized that instructors could affect the referees by exhibiting positive attitudes and behaviors.

4.3 The Results Related to the Efficiency of Training Seminars and Educational Environment

When the opinions of the referees about educational environment were examined, referees claim that buildings and facilities owned by the institution are not suitable for education, The seminar building, and equipment are not well organized for the use of instructors and referees, and The physical structure of the classroom environments where training seminars are conducted is not suitable for good education.

Müniroğlu (1988) and Kayışoğlu et al. (2010), in parallel with this study, stated that the buildings and facilities of the institution are insufficient.

In the study, significant difference was found between the opinions of the referees on the efficiency of the educational environment and the level of education, and accordingly, the idea that referees who have graduated from high school found the educational environment more efficient than referees who have completed bachelor's degree graduates came to the fore.

Kayışoğlu et al. (2010) stated that there was no significant difference between the opinions of referees, and their

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educational levels, but the referees who graduated from bachelor's degree and master's degree found that training process was less efficient than referees who have completed high school and associate degree.

Karaçam (2013) reported that basketball referees found the efficiency of educational environment enough and in the light of educational level, referees at the level of doctorate found the efficiency of the education environment less adequate in contrast to the other referees.

In the literature, it is seen in the studies conducted with the referees of different branches that as the level of education increases, the expectation levels of the referees increase accordingly.

# 4.4 The Results Related to the Planning of Training Seminars

When referees' opinion on the planning of the training seminars were examined, it was considered that lessons given in training seminars are planned in an orderly manner, the aims of training seminar were clearly determined, managers, instructors and referees are aware of the program activities conducted within the institution, and opinions of the experts were taken during the planning of training program. It was also observed that various measurement tools were used to determine the needs of the referees during the preparation of training programs, managers exhibit positive attitudes and behaviors in solving problems related to the training seminar, and training program in the seminars is clearly identified and submitted to the referees' information. In addition, it was found that courses given in the training seminars were not clear and understandable, and different abilities and educational levels of referees are taken into consideration during the preparation and conduction of training seminars.

Kayışoğlu (2008), in parallel with this study, suggest that managers exhibited positive attitudes and behaviors in solving problems related to the training seminar, the opinions of the experts were taken during the planning of training program, and different abilities and educational levels of referees are taken into consideration during the preparation and conduction of training seminars. Similar to the literature, it is considerable that different abilities and educational levels of referees should be taken into consideration during the preparation of training seminars.

Kayışoğlu (2008) also reported that, contrary to this research, football referees refused that the courses given in the training seminars are clear and understandable and the needs of the referees was determined during the preparation of training seminars.

In the research, it was found that there was significant difference between referees' opinion on the planning of the training seminars and professional experience. Therefore, it was determined that referees who have professional experience of 4-6 years, 13-15 years and 16-18 years found the planning of the training seminars more adequate than the other referees. There was also significant difference between referees' opinion on the planning of the training seminars and satisfaction levels of referees, and it was found that those who were satisfied found that the planning of the training seminars was more adequate than the undecided ones.

When the literature is examined, it is seen that the variable of professional experience is effective in the planning of training seminars. Karaçam (2013), in parallel with this research, consider that referees' professional experience and it is concluded that the planning of training seminars was found adequate in all age groups except 12-14 years.

In terms of gender variable, considering that opinions of experts were taken into consideration during the planning of training programs, it was found that female referees agreed with the opinion more than male referees.

# 4.5 The Results Related to the Evaluation of Training Seminars

When the opinions of the referees on the evaluation of the training seminars were examined, it was found that the evaluation activities were carried out at the end of the implementation.

Kayışoğlu et al. (2010) also reported that, contrary to this research, referees do not agree with the opinion that lessons given in training seminars are evaluated in an orderly manner. It is estimated that this is due to the fact that federations in different branches have specific evaluation activities.

# 5. Conclusion and Suggestions

In this study, it was found that some variables of swimming referees had an effect on the referees' training processes, and it was concluded that referees' opinions about referee training process were generally positive and negative.

- 1) Reducing the number of trainees in candidate referee training courses and completing their deficiencies by assigning an observer or guide referee to any competition to be managed by the candidate referees will be appropriate for the efficiency of the candidate referee courses.
- 2) Instructors working in training seminars will improve the quality of education by using effective teaching

- methods to communicate effectively and correctly and planning of the training seminars considering the individual differences of the referees.
- 3) Revisions to increase the number of lecture hours and to make the course contents comprehensible by preparing different course contents appropriate to the referees of different abilities, education level and experience will contribute to the efficiency of education.
- 4) It is considered that an appropriate educational environment will be provided with the improvement of the physical conditions of the educational environment.
- 5) The education level of the referees can be maximized according to the related department by opening the Department of Refereeing Education in the Faculties of Sport Sciences or Schools of Physical Education and Sports or by including the referee training courses in the programs in these departments.

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