RESEARCH ABOUT VISITOR PERCEPTIONS OF ÇANAKKALE MARTYRS' MEMORIAL

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ABSTRACT

The Martyrs' Memorial and historical area, located within the boundaries of Çanakkale province and scene of historically important events, is important for all time with significant domestic and foreign visitor potential from Turkey and many other countries. Due to visitor numbers reaching significant amounts, especially in the summer months, the necessity to renovate, develop and ensure sustainability of landscaping infrastructure and furnishings was revealed in line with visitor perceptions. The study applied face-to-face surveys to 100 individuals over the age of 18 years visiting the area. Data obtained from the survey were evaluated with linear regression analysis in the SPSS 15.0 statistical program. The results of the analysis found an R2 value of 0.516, showing that the independent variables of "open and enclosed viewing terraces, car park, furnishings (like pergolas, seating groups, waste bins, digital information panels) and planting" explained 52% of the variation in the dependent variable of "satisfaction rate". With the ANOVA test, the "p" value of "0.000" was found, indicating that the regression model was significant for the whole study. The VIF value was 3 and above showing no correlations between independent variables and emphasizing that four variables should remain in the model (open and enclosed viewing terraces, furnishings, car park). In conclusion, in line with visitor perceptions, the necessity to include landscaping in the area especially the role of planting as shade and windbreaks, car park, furnishings like pergola, waste bins, digital information panels and seating groups, and open and enclosed viewing terraces was determined. Applications of these appropriate to the day's conditions and visitor requirements will contribute to visitor satisfaction.

Keywords: Çanakkale, planning, Martyrs' Memorial, visitor perceptions

1. INTRODUCTION

Historical areas have an important place in the identity of a town (Göçer et al., 2018). As distinctive places in terms of natural, historical and cultural aspects, these areas may form a distinction on an individual basis, just as much as for the town (Kelkit, 2003). The landscape planning and design, apart from architectural structures, are very important, especially for areas with excessive visitor potential such as the Çanakkale Martyrs' Memorial (Willis et al., 2001; Çukurçayır, 2002; Jim, 2004; Alkan and Uzun, 2016). This importance is directly related to the duration spent in the area. As a result, the duration spent in the area may reveal differences in satisfaction rates, just as mentally and psychologically (Sherman et al., 2005; Cheng et al., 2010; Sağlık et al., 2016). This study aiming to determine landscape infrastructure and furnishings as factors in the duration spent in the historical area and satisfaction was completed at Çanakkale Martyrs' Memorial. For this, the perceptions of 100 randomly-chosen individuals aged over 18 years visiting the historical area were researched. Finally, an attempt was made to reveal the visitor perceptions and linked variable and developing satisfaction rates (Külekçi and Irmak, 2019).

2. METHODOLOGY

The study was completed at Çanakkale Martyrs' Memorial located at the point where 40° 3' 0.00" latitude and 26° 13' 8.00" longitude intersect, in an area of nearly 26 decares. Field measurements were calculated using Google Earth (Figure 1).

Figure 1. Geographical location of Çanakkale Martyrs' Memorial (adapted from Google Earth (2019)).

With intense visitor potential in the summer months, an attempt was made to evaluate the landscape infrastructure and furnishings of the "Martyrs' Memorial" based on visitor perceptions. For this, surveys were applied to 100 randomly-chosen individuals aged over 18 years visiting the area with face-to-face interviews. Firstly, the demographic characteristics of survey participants were determined. Then visitor perceptions about furnishings like pergola, boundary elements, waste bins, and digital information panels, planting, open and enclosed viewing terraces, and car park landscape elements were researched. The effect of these elements on visitor satisfaction and statistical correlations between them were evaluated with linear regression analysis using the SPSS 15.0 statistical program.

3. RESULTS AND DISCUSSION

The landscape components that may contribute to visitor satisfaction linked to visitor perceptions are explained below.

- Within the scope of planting, landscape furnishings like green belts and green paths were included and are important for the identity and image of the area. The application of this element is based on broad-leaved or coniferous plant groups with dense and large crowns forming a transition corridor (Hıyaban).
- Tree species and plants included in planting should have functions such acting as windbreaks and creating shade. Tree species being evergreen has additional

importance in terms of preventing leaf drop in the area in fall and winter (preventing labor and costs).

- Additionally, another result obtained in the study is that especially in areas with visitor density, maintenance operations such as grass facilities, transfer of grass in local areas, and ensuring continuity should be completed without delay.
- The inclusion of digital panels to inform visitors about topics such as directions to the area, visitor numbers and capacity, and vehicle information was among furnishings in line with visitor perceptions.
- The study by Erten and Gündüz (2011) recommended instantaneously updateable digital panels with the aim of informing visitors about the area and use as part of the protective use system for Uludağ National Park based on regeneration in landscape planning and design.

The linear regression analysis results and interpretations based on survey data obtained in the study are given below.

On Table 1, it appears the independent variable increasing "satisfaction rate" most is "furnishings" with value of 0.326, followed by "planting" and "car park". The coefficients for the "enclosed and open viewing terraces" were negative, meaning they had a negative effect on "satisfaction rate", which was not a desired outcome in this analysis. However, the degree of significance was "0.000" requiring they remain in the model; in other words, showing the model is significant.

Table 1. Correlations

		Satisfaction Rate	Planting	Furnishings	Car park	Enclosed viewing terrace	Open viewing terrace
Pearson Correlation	Satisfaction Rate	1.000	.152	.326	.112	-.434	-.428
	Planting	.152	1.000	-.545	-367	.087	-.172
	Furnishings	.326	-.545	1.000	.217	-.333	-.223
	Car park	.112	-.367	-.217	1.000	-.343	-.010
	Enclosed viewing terrace	.434	.087	-.333	-343	1.000	-.285
	Open viewing terrace	.428	-.172	-.223	-010	-.285	1.000
Sig. (1-tailed)	Satisfaction Rate	.	.066	.000	.135	.000	.000
	Planting	.066	.	.000	.000	.193	.043
	Furnishings	.000	.000	.	.015	.000	.013
	Car park	.135	.000	.015	.	.000	.461
	Enclosed viewing terrace	.000	.193	.000	.000	.	.002
	Open viewing terrace	.000	.043	.013	.461	.002	.

For multiple regression in the study, the adjusted R^2 value in Table 2 should be noted. This value was calculated as 0.516. In other words, this means the independent variables (open and enclosed viewing terrace, car park, furnishings) explained 52% of the variance in the dependent variable (satisfaction rate). This value is above the mean and is satisfactory. The Durbin Watson statistic was calculated as 2.262. This value is close to 2, an indicator that there is no autocorrelation.

Table 2. Model Summary(b)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics								Durbin-Watson
	R Square Change	F Change	df1	df2	Sig. F Change	Square Change	F Change	df1	df2	Sig. F Change			
1	.732(a)	.536	**.516**	8.38461	.536	27.432	4	95	.000	**2.269**			

a Predictors: (Constant), Open viewing terrace, Car park, Furnishings, Enclosed viewing terrace; b Dependent Variable: Satisfaction rate

According to Table 3, the "p" value for the ANOVA test was significant with a value of "0.00". Stated differently, the analysis results were significant at the 1% level for the logarithmic function type. In other words, the regression model is significant as a whole. The F value was 27.43%, which is important to confirm the significance of the model. Özdemir and Vural (2015) found statistical correlations significant at the 5% level in a study targeting the effect of landscaping and furnishings on individual and social satisfaction evaluated in terms of rural-urban audiences.

Table 3. ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7714.093	4	1928.523	27.432	.000(a)
	Residual	6678.657	95	70.302		
	Total	14392.750	99			

a Predictors: (Constant), Open viewing terrace, Car park, Furnishings, Enclosed viewing terrace; b Dependent Variable: Satisfaction rate

The coefficients and significance for the regression model are given in Table 4. The coefficient for the constant term was calculated as 133.165 and the p value was 0.000. In this situation the constant term is significant. The regression model coefficients for the independent variables were calculated to be negative.

Table 4. Model Coefficients(a)

Model	Unstandardized Coefficients		Standardized Coefficients	t	SSig.	95% Confidence Interval for B		Correlations			Collinearity Statistics		
	B	Std. Error	Beta	Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF	B	Std. Error	
(Constant)	**133.165**	8.908		14.949	**.000**	115.481	150.849						
Furnishings	-.747	.790	-.084	-.945	.347	-2.316	.822	.326	-.096	-.066	.623	1.605	
Car park	**-1.748**	.962	-.152	-1.817	**.072**	-3.657	.162	.112	-.183	-.127	.696	1.437	
Enclosed viewing terrace	**-9.068**	1.221	-.698	-7.426	**.000**	-11.492	-6.644	-.434	-.606	-.519	.552	1.811	
Open viewing terrace	**-10.029**	1.260	-.648	-7.959	**.000**	-12.530	-7.527	-.428	-.632	-.556	.738	1.355	

However, the T test results calculated the significance level as smaller than 0.01 and 0.1, apart from "furnishings". As a result, the significance degrees were found to be 1% and 10%. However, as can be seen there is an inverse correlation between the independent variables and satisfaction rates because the regression model coefficients are negative. Collinearity statistics (VIF values) were not 3 or above, showing there is no correlation between independent variables and may be interpreted to show that it is appropriate for four variables to remain in the model.

The demographic results obtained from the survey are given below. The expectations determined based on perceptions of individuals participating in the survey for the independent variables remaining in the model according to the linear regression model in the statistical analysis results are given in Figure 2.

Figure 2. Expectations of survey participants about landscape planning and design
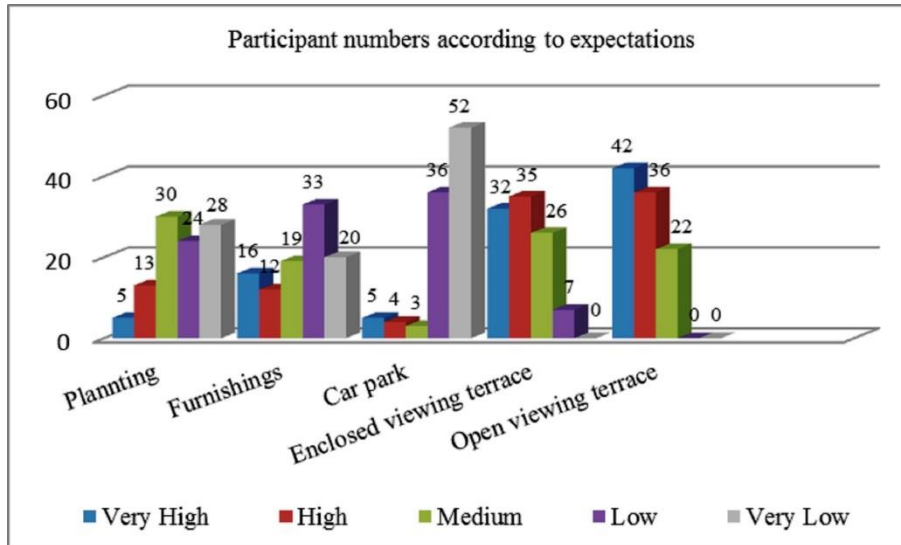
Accordingly, it was emphasized that planting in the visitor area should mainly include species that act as windbreaks and create shade. Nearly 80% of participants stated they had expectations of low to moderate levels of planting in the area. Contrary to these expectations, the low level may be explained by the inclusion of the open viewing terrace, pergola and climbing decorative plants in the questions. It was determined that nearly 1/3 of participants believed in the necessity to include furnishings like pergola, waste bins, seating groups and digital information panels in the area. Nearly 90% of participants stated the "car park" area should be at "very low" and "low" levels in the area. More that 2/3 of participants had expectations of "very high" and "high" levels for the "open and enclosed viewing terrace" variables. As seen on Figure 3, 44% of visitors to the Martyrs' Memorial were religiously motivated (spiritual). The remaining 56 individuals were understood to come to the area to learn, for trip-observation and recreation, from most to least.

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Figure 3. Distribution of reasons for visiting the Martyr's Memorial
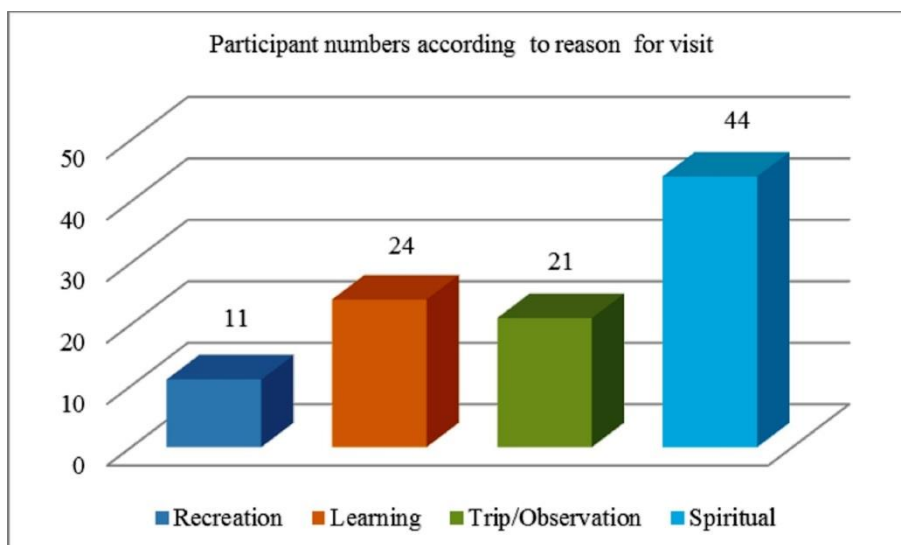
Figure 4 shows that nearly half of visitors participating in the survey had undergraduate "degrees". Thirty individuals had masters and doctorate degrees, with 27% being "primary school" and "high school" graduates. A study by Özdemir and Vural (2015), identified that nearly 1/5 of survey participants were not literate, 1/3 were literate and 1/3 were primary school graduates. A study by Yılmaz et al. (2016) stated that nearly 1/3 of participants were primary school graduates, 1/7 were middle school graduates, 1/3 were high school graduates, and 1/15 were university graduates. The sample in a survey study applied by Akpınar (2019) comprised 44.4% with associate degree and degree level education. Doğan et al. (2015) in a study researching the satisfaction of visitors to the Hasankeyf region observed 49.3% had masters and doctoral degrees when the educational level of visitors was examined.

Figure 4. Educational level of survey participants visiting the Martyr's Memorial
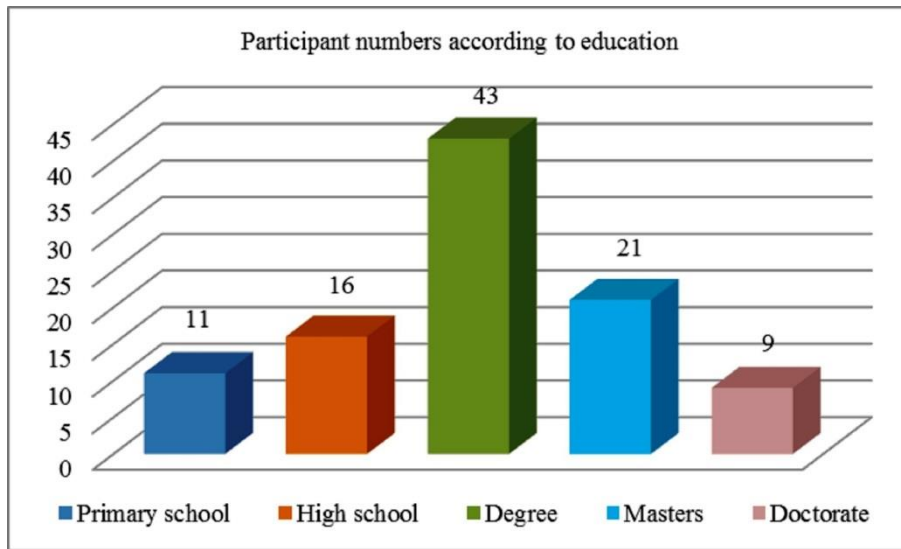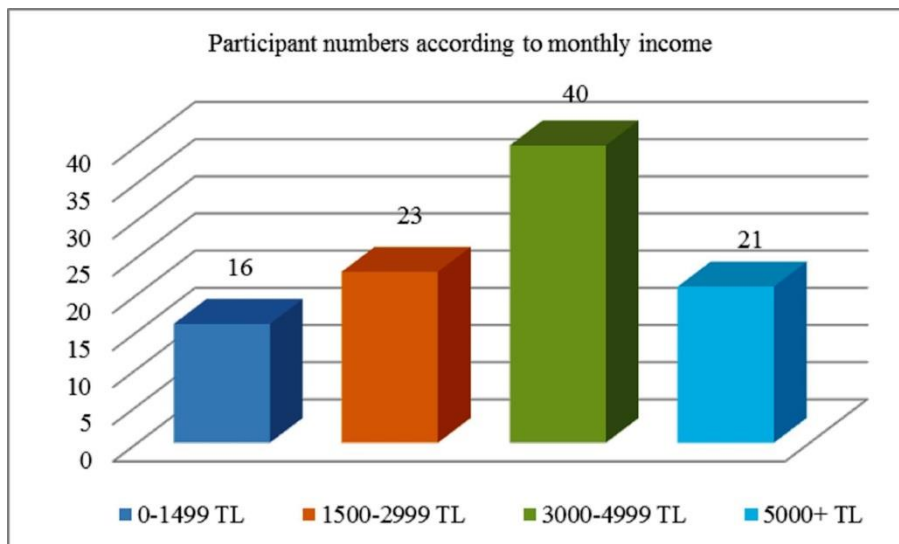

According to Figure 5, 27% of participants were "public sector employees", 20% were "teaching staff", 16% were "private sector employees" and 14% were "self-employed". The study by Özdemir and Vural (2015) found 40.9% of participants were retired. Yılmaz et al. (2016) found 86.7% were unemployed and 13.3% were employed within the scope of the survey participants in their study. In the study by Akpınar (2019), 46.2% of participating individuals were employed.

Figure 5. Distribution of occupation of survey participants visiting the Martyr's Memorial.
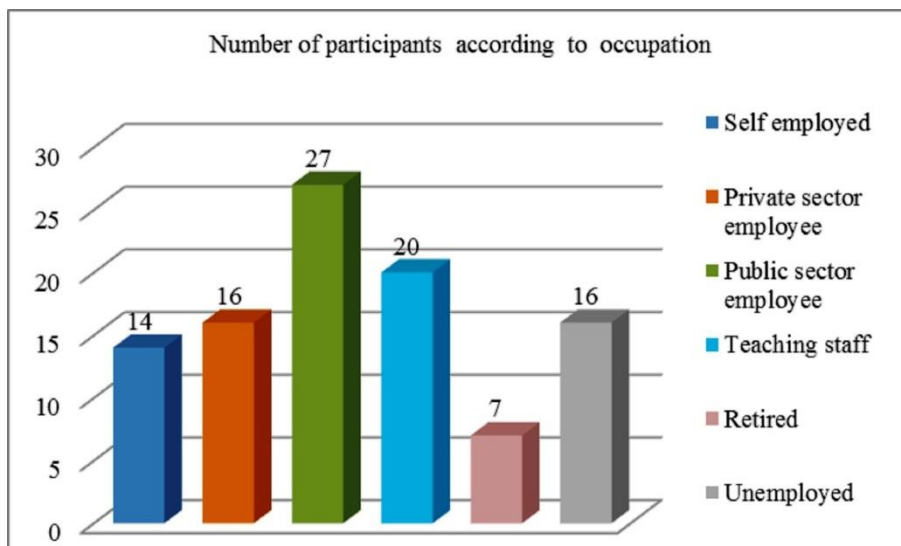
Of the survey participants, 40 individuals were determined to have monthly income from 3000-5000 TL. This was followed by 23 individuals with monthly income of 1500-3000 TL, 21 individuals with income of 5000 TL or more, and 16 individuals with income from 0-1500 TL (Figure 6).

Figure 6. Distribution of monthly income of survey participants.


According to the survey results of Akpınar (2019), 39.3% of participants had monthly income from 1000-1999 TL. In the study by Doğan et al. (2015), 24.2% of individuals replying to the survey had monthly incomes from 4000-5000 TL. According to Figure 7, there were 37 visitors participating in the survey aged from 18-30 years, 28 people from 31-40 years, 26 people from 41-50 years and 9 people from 51-60 years of age. Of individuals included in the survey application in the study by Doğan et al. (2015), 45.7% were in the 16-29 year age group.

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**Figure 7.** Distribution of age ranges for survey participants.
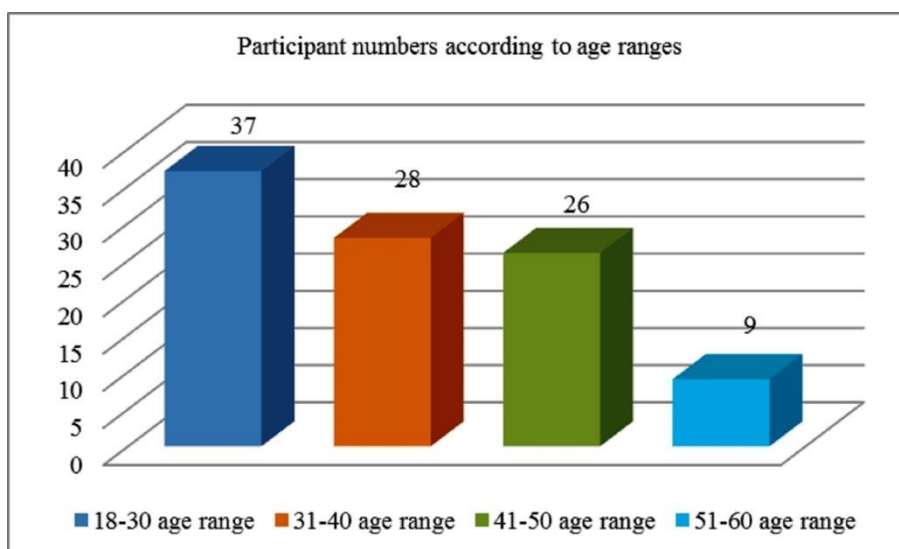
On Figure 8, it was identified that of the 100 individuals randomly chosen from visitors to the Martyrs' Memorial and included in the survey to determine perceptions, 66 spent from 0-60 minutes in the area for their visit. Information was reached that 19 individuals spent from 1 to 1.5 hours for their visit.

Figure 8. Distribution of length of visit for survey participants.
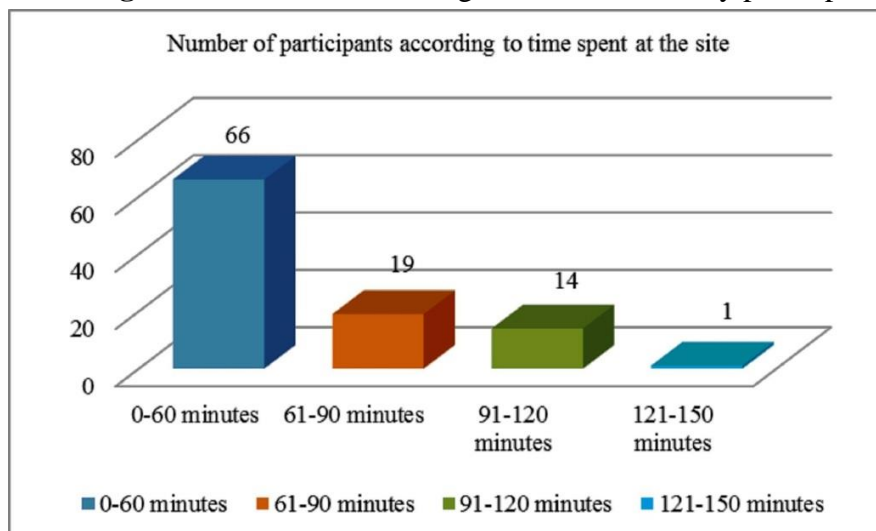
Based on the current situation, when the rates of visitors who completed a satisfactory visit to the area are examined, a mean of 86.35% of the 100 survey participants were satisfied as seen on Figure 9. In the study by Akpınar (2019), it was identified that the mental status of 13.2% of individuals was very positively affected by the quality of the green space.

Figure 9. Distribution of satisfaction rates for survey participants
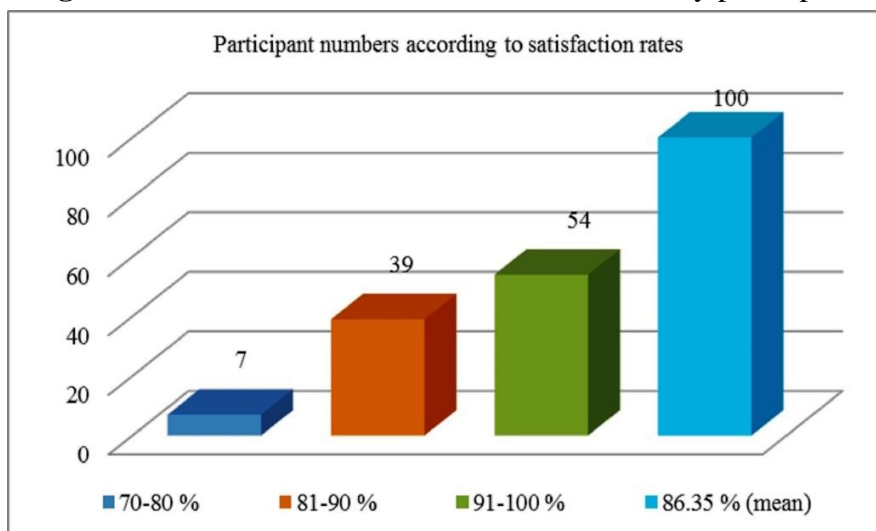
4. CONCLUSIONS

The study focused on the perceptions of the visitor potential of Çanakkale Martyrs' Memorial, the landscape infrastructure and sufficiency of furnishings within the scope of the area and effect on satisfaction. Data obtained in the study were determined by applying a survey to a randomly-selected target group of volunteers. The study concluded that the landscape infrastructure and furnishings of Çanakkale Martyrs' Memorial are insufficient. Important conclusions reached in line with the aim of the study included the lack or insufficiency of planting of windbreak and shade trees, furnishings like pergola and seating groups, and open and enclosed viewing terraces. When the daily increasing numbers of visitors are considered, the necessity to renovate the historical area in parallel to varying needs was revealed. An area plan for this structure, with continuing change and development, including visitor perceptions will positively contribute to visitor satisfaction (Özdemir, 2019; Sherman et al., 2005; Cheng et al., 2010). With this mandate, it is important not to ignore the perceptions and thoughts of visitors to the historical area in studies about area planning, design and applications.

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