

## Comparison of Problem-Solving Skills among Volunteers Working in the 17th Mediterranean Games from an Organisational Training Standpoint

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### Abstract

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The aim of this study was to determine whether there were any significant differences between the measured problem-solving skills of volunteers participating in the 17th Mediterranean Games between the time they were first recruited and after the organisational trainings they received. The study sample consisted of 2597 volunteer workers deemed suitable to participate in the games. The problem-solving skills of the participating volunteers were determined using the "Problem-Solving Inventory" developed by P.P. Heppner and C.H. Peterson. Cronbach's alpha reliability coefficient of the scale was determined as 0.88 (20). Data analysis was performed using statistics software. Based on our study results, we determined no statistically significant difference between the first assessment performed before the training and the second assessment performed after the training, while a statistically significant difference (0.05) was found between the first assessment and the third assessment performed after the special organisational training

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**Keywords:** international sports organisations, volunteers, problem-solving

### 1. Introduction

Problems are challenges that individuals or society need to resolve in order to be successful (6). It is normal to encounter many problems or challenges during the management of large sports events. This is because sporting events are activities with a multitude of components, and in which it is essential for every component or aspect to be equally and simultaneously successful.

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The ability to solve problems encountered while coordinating the thousands of individuals participating in these types of events is indicative of the effectiveness in managing human resources, and consequently of the success in organisational matters (8). John Dewey defines a problem as everything that confounds the human mind, presents challenges, and causes ambiguity and uncertainty (5). “Problem” may refer to the complex situations individuals may encounter, or to the various issues they face in daily life (9, 12). In large sports events, workers at every stage or level may encounter a multitude of confusing situations that require an effective solution.

What is important in this context is to identify the problem in the best and most effective way, and to intervene promptly and rapidly to solve the problem. Problem-solving, on the other hand, is defined as the process by which individuals overcome challenges and difficulties with the aid of their personal experiences (18). Every person participating in these types of large-scale sports events are informed about the nature of the problems they might encounter, and given both general and special training on their scale and source, and possible solutions (3). The reason behind this is to ensure that personnel involved in these events can have the necessary skills to identify, and anticipate and resolve the problem by intervening in any situation that might arise during the games.

**Diagram 1: Possible Problems and Methods for Resolutions (7, 11, 17)**

<b>Possible Problems</b>	<b>Methods for Resolution</b>
<p><b>Fear of Confronting:</b> Refers to the fear of facing difficulty situations.</p>	<ul style="list-style-type: none"> <li>- Problems should be identified before they become greater.</li> <li>- Teammates must constantly share their thoughts and emotions.</li> <li>- Efforts should be made to create a space and time period where there is no time pressure.</li> </ul>
<p><b>Lack of Support:</b> Refers to situations where there is a lack of a supportive culture behind the individual.</p>	<ul style="list-style-type: none"> <li>- Management must act in ways that demonstrate that it values differences.</li> <li>- Processes must be discussed during group meetings.</li> <li>- Written policy documents and guidelines should be created.</li> <li>- Policies should emphasize training.</li> </ul>

<p><b>Different Levels of Power:</b> Refers to the threatening feeling individuals perceive when dealing with managers.</p>	<ul style="list-style-type: none"> <li>- Managers should be trained to work and deal with motivated and self-confident workers.</li> <li>- Successful efforts and changes that result from direct communication should be congratulated.</li> <li>- A policy that protects workers should be maintained.</li> <li>- All workers should join trainings together.</li> </ul>
<p><b>Lack of Adequate Knowledge:</b> Refers to a situation in which individuals have insufficient knowledge or encounter difficulties when attempting to access information.</p>	<ul style="list-style-type: none"> <li>- Open lines of communication must be held between management and workers.</li> <li>- Online systems must be established.</li> <li>- Workers should be trained on basic work processes.</li> <li>- In development projects, there should be no hesitating in making overtime payment whenever necessary.</li> </ul>
<p><b>Concern on Outcome:</b> Refers to the situation where an individual who believes that he/she may be unsuccessful has difficulties sharing problems with other group members.</p>	<ul style="list-style-type: none"> <li>- "Open" team meetings should be organized in an environment where the Target Group/Audience is also present.</li> <li>- All team members should be trained on open communication and defence mechanisms.</li> </ul>
<p><b>Lack of Skills:</b> Refers to the lack of skills in facing difficult conditions, disseminating positive thoughts and emotions, reaching consensus, etc.</p>	<ul style="list-style-type: none"> <li>- Training (general and special)</li> <li>- Persons should be supported and sent to new training courses.</li> <li>- In-team practices should be organised.</li> <li>- Team leaders should provide leadership and assistance.</li> </ul>
<p><b>Inability to Properly Define the Relevant Processes:</b> Refers to a situation that results from the relevant processes not being sufficiently described to the personnel, and the personnel consequently attempt to resolve problems of their own.</p>	<ul style="list-style-type: none"> <li>- Policies should be discussed, created, and published.</li> <li>- Support should be recruited from as many personnel as possible, especially from persons deemed reliable.</li> <li>- Personnel should be trained on processes and their implementation.</li> </ul>

Regardless of the type of organisation, the problems that are encountered are generally similar (10). Resolving these problems first of all requires trained and experienced human resources. In addition to professionals used in large sports organisations, “volunteers” also constitute an important human resource. The availability of volunteers also depends on the degree to which a country or city embraces the organisation or event. The number of volunteers participating in an event is evidence of how willing the city is for that event to take place, and the extent to which the city has embraced it.

In sports events, an attempt is made to inject both the players and the working personnel with a spirit of amateur enthusiasm. Such events make use of volunteers in many ways. The personnel may encounter various problems while carrying out their tasks, and are required to develop rapid solutions in face of these problems. In fact, the success of an organisation also depends on these problem-solving skills. Once the volunteers who will participate in a sports event are determined, they will be given the necessary trainings and assigned to their relevant tasks. The purpose of these trainings is to develop the volunteering personnel's problem-solving skills (4). This is because these volunteers who have never before participated in any sports event first need to be taught about the problems they will likely encounter, and on how they should act when confronting them. It is important that the content of these trainings focus especially on improving problem-solving skills (2).

## **Material and Methods**

The aim of this study was to determine whether there were any significant differences between the measured problem-solving skills of volunteers participating in the 17th Mediterranean Games between the time they were first recruited and after the organisational trainings they received.

In other words, we investigated using the pre-test/post-test method to determine whether there were any changes in the problem-solving skill levels of volunteers following the organisational trainings they received. The study population consisted of a total of 10,808 volunteering candidates who applied to the 17th Mediterranean Games (1). The study sample consisted of a total of 2,597 volunteers who were deemed eligible to participate in the event (4).

The problem-solving skills of the participating volunteers were determined using the "Problem-Solving Inventory" developed by P.P. Heppner and C.H. Peterson. It is a Likert-type scale consisting of 35 items scored between 1 and 6 (13,16). The scale, which was originally named the "Problem-Solving Inventory, Form-A (PSI-A)," assesses the self-perception of individuals with regards to their problem-solving skills (14).

In Turkish (the language in which the study was conducted), the scale is called "Problem Çözme Envanteri-A Formu (PSI)." It was adapted to Turkish by Nail Şahin, Nesrin H. Şahin, and Paul Heppner. In each item, individuals are asked the frequency in which they exhibit the behaviour described in the relevant item. The total score from all items is considered representative of the individual's problem-solving skills. Scores can range from 32 to 192 (14,15). Higher scale scores are indicative of an individual's self-perception of inadequacy with regards to problem-solving (20). The scale's Cronbach's alpha reliability coefficient was determined as 0.88 (15,21). Data analysis was performed using a statistics software. Study results were determined accordingly.

## Results

Comparisons were performed between the problem-solving skills measured at different times of the volunteers working in the 17th Mediterranean Games and the problem-solving skills of the control group. The relevant results are shown below.

**Table-1: PSI Score Frequency Values among Volunteers**

	Mean	N	Std. Deviation	Std. Error Mean
Pre-test	68,61	105	12,178	1,188
Control Group	68,21	105	10,798	1,054
Post-test After General Training	66,09	105	11,693	1,141
Control Group	68,21	105	10,798	1,054
Post-test After Special Training	54,30	105	9,569	,934
Control Group	68,21	105	10,798	1,054
Pre-test	68,25	1953	11,924	,270
Post-test After Special Training	53,91	1953	9,445	,214
Post-test After General Training	65,74	1953	11,449	,259
Post-test After Special Training	53,91	1953	9,445	,214

Table-1 shows indicates that the PSI score for the volunteers at the time they were first recruited and the PSI score for the control group ( $\bar{X}$ =68.61 and  $\bar{X}$ =68.21, respectively) were very close to one another, and that both groups had the lowest problem-solving skills. On the other hand, the highest problem-solving skill scores were observed among volunteers who received special organisational training ( $\bar{X}$ =53.91).

**Table-2: Comparison of the Volunteers' Pre-Training PSI Scores with the PSI Scores Following General and Special Training.**

	Paired Differences		t	df	Sig. (2-tailed)
	Mean	Std. Deviation			
Pre-test / Post-test After General Training	2,505	,546	202,736	1952	,800
Pre-test / Post-test After Special Training	14,333	3,680	172,111	1952	,000
Post-test After General Training / Post-test After Special Training	11,828	3,346	156,197	1952	,000

A comparison was performed between the volunteers PSI scores before training ( $\bar{X}$ =68.61) and after the special organisation training ( $\bar{X}$ =53.91), and it was determined that the volunteers who received special training had statistically significantly better scores ( $p < 0.05$ ). In addition, a comparison between the PSI scores of volunteers who received special training ( $\bar{X}$ =65.74) and volunteers who received special organisational training ( $\bar{X}$ =53.91) revealed a 0.05 level significant difference in favor of volunteers who received special organisational training (Table-2).

**Table-3: Comparison of the Volunteers' PSI Scores Before Training and After General and Special Training with the PSI Scores of the Control Group**

	Paired Differences		T	df	Sig. (2-tailed)
	Mean	Std. Deviation			
Pre-test / Control Group	,400	16,457	,249	104	,804
Post-test After General Training / Control Group	-2,124	16,096	-1,352	104	,179
Post-test After Special Training / Control Group	-13,905	14,589	-9,766	104	,000

A comparison of the volunteers' PSI scores before any training and after they received general and special training with the PSI scores of the control group revealed that no significant differences between the problem-solving scores of the groups which received no training ( $\bar{X}=68.61$ ) or received general training ( $\bar{X}=66.09$ ) and the control group ( $\bar{X}=68.21$ ). On the other hand, a significant difference at a 0.05 level was identified between the PSI scores of the volunteers who received special organisational training ( $\bar{X}=54.30$ ) and the control group ( $\bar{X}=68.21$ ) (Table-3).

## Discussion

In this study, the problem-solving skills of volunteers working in the Mediterranean Games were compared between the time before they received training and after the time they received organisational training (general or special), with the aim of determining the training programs positively affected the volunteers' problem-solving skills.

In the first stage of the study, no significant differences were observed in PSI scores performed before any training was provided to the volunteers and after they received general training (Table2). In other words, there were no significant differences between these two assessments. As such, we determined that the general training program did not have a positive impact on the volunteers' problem-solving skills. This observation was further statistically supported by the fact that comparisons between the control group and the volunteers before they received any trainings revealed no significant differences in terms of PSI scores (Table3).

It is essential that training programs given to volunteers working in sports events to have realistic objectives that can be implemented and that support the development of problem-solving skills (3, 19). In the second stage of the study, comparisons were performed between the PSI scores of the volunteers before they received any training and the PSI scores after they received special organisational training. The results of these comparisons indicated a statistically significant difference at 0.05 levels in favour of the volunteers with special training (Table2). This observation was further statistically supported by the that comparisons between the control group and the volunteers after they received special organisational training revealed significant differences at a 0.05 level in terms of PSI scores (Table3).

Based on these observations, it is possible to state that the content of special organisational training programs have a positive effect on the development of problem-solving skills. In other words, it can be said that the general training program provided to the volunteers at the 17th Mediterranean Games was both ineffective and unnecessary. Providing the necessary training to human resources during the preparatory stages of sports events is key to achieving productivity and success (4, 21). It is therefore imperative for the content of training programs to promote desirable and effective behaviours in individuals within a short period of time. It is possible to state that the special organisational training programs given to volunteering personnel during the preparatory stages of the 17th Mediterranean Games helped enhance the problem-solving behaviours of individuals, and that these training programs were successful.

In the third stage of the study, comparisons were performed between the PSI scores of volunteers who received general training and the PSI scores of volunteers who received special organisational training. These comparisons revealed a statistically significant difference at a 0.05 level in favour of the volunteers who received special organisational training (Table-2). A comparison was also performed between the PSI scores of the volunteers who received general training and the PSI scores of the control group, which revealed no statistically significant differences. On the other hand, comparison between the PSI scores of the volunteers who received special organisational training and the PSI scores of the control group revealed a statistically significant difference at a 0.05 level in favour of the volunteers who received special training (Table 3).



These results statistically further support the observation regarding the effectiveness of the special organisational training program. In this context, it is possible to state that the general training program and the special organisational training program given to the volunteer personnel working at the 17th Mediterranean Games differed from one another with respect to their contribution to the development of problem-solving skills.

In conclusion, the general training program applied to the volunteers working in the 17th Mediterranean Games did not contribute to the development of problem-solving skills, while the special organisational training program provided to the volunteers effectively supported the development of problem-solving skills. Therefore, the general training programs can be considered as unnecessary and a loss of time and resources, since they do not contribute to the development of problem-solving skills. We believe that allocating volunteers to different departments without providing any general training, and providing them with direct organisational training instead would not only have a more positive impact on the volunteers' problem-solving skills, but will also be more advantageous in terms of time and material resources.

Human resources are the most important resource in large sports organisations. To ensure that human resources can adapt to the requirements of the organisation, while also gaining the necessary problem-solving skills, it is important to update the content of training programs as necessary, emphasising content that supports the development of crisis management and problem-solving skills. Efficacy in training is vital, since the preparation and implementation of all training programs require time, resources, and effort.

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