

# **P-value Data Analytics**

## **Summary of the Findings and Evaluation Process of Activities in Youth Clubs – 5784**

Prepared for the Jaffa Institute

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## **Executive summary**

The overarching goal of the present evaluation process is to evaluate the ways in which the youth clubs contribute to participants' personal, emotional, and social skills.

Teenagers at the club participated in the process. The process measured the changes in their self-efficacy, emotional regulation, social skills, resilience, self-image, and sense of belonging at the club. The measures were evaluated at two points: March and August 2024.

In general, there was a significant improvement in a majority of the measures over the course of the year in all the participants. The most salient improvements were in resilience (31%), social skills (25%), and self-image (23%). There were also significant improvements in self-efficacy (15%) and sense of belonging at the club (14%).

Measuring separately for each gender, it was found that both boys and girls showed similar improvement in resilience (boys 31%, girls 30%) and self-image (boys 21%, girls 24%). The boys showed greater improvement in self-efficacy (20%) than the girls (11%). On the other hand, the girls showed greater improvement in social skills (girls 30%, boys 19%) and sense of belonging at the club (girls 21%, boys 8%).

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## **Goals of the evaluation process**

The overarching goal of this present process is **to measure the ways in which the youth centers contribute to the personal, emotional, and social skills of the participants.**

Alongside this are several secondary goals:

1. To provide **an empirical, data-based picture**, based on the standard practices of the social sciences, for measuring personal and group processes provided by the centers.
2. **To communicate, in a numerical-statistical format, the accomplishments of the program to the stakeholders** – the counselors, the Institute’s management, the donors, and other relevant stakeholders.

## Methodology

### 1. Participants

Data was collected on the teens participating in the club activities. In total 21 participants took part in the study, 66.7% girls and 33.3% boys.

Table 1 shows the distribution of demographic variables in the sample.

**Table 1: Distribution of demographic variables among the participants**

	Incidence (%)	Average	Standard deviation	Range
<b>Gender</b>				
• Girls	66.7%			
• Boys	33.3%			
<b>Age</b>		14.10	1.64	12-17
<b>Time at club (prior to present year)</b>				
• One year	57.1%			
• Two years	33.3%			
• Four years	9.6%			

### 2. Measures and questionnaires

In order to measure the changes in the psycho-social measures, questionnaires recognized and supported by the literature were given. The subjects were asked to rate to what extent each statement describes them on a Likert scale from 1 (not at all) to 5 (very much). Reliability was calculated for each measure in order to make the variables measured more accurate. Later, an average score for each questionnaire was calculated.

**Self-efficacy** – measured using the General Self-Efficacy Scale, which measures the subject’s perception of their belief in their ability to attain goals and overcome obstacles in daily life (Chen & Gully, 1997). The questionnaire contains 6 statements, e.g., “I can attain most of the goals I have set myself.” The reliability of the questionnaire was good (Cronbach’s alpha = 0.73).

**Emotional regulation** – measured using the Emotion Regulation Questionnaire developed by Gross & John (2003), which measures how the subject handles negative emotions (sadness, anger, stress). The questionnaire contains 3 statements, e.g., “When I feel stressed, I can calm myself fairly easily.” The reliability of the questionnaire was good (alpha = 0.74).

**Social skills** – measured using the Social Skills Scale questionnaire developed by Hameed, Jabeen, & Mahmood (2019). The questionnaire measures a variety of social skills that enable the subject to fit into a group and feel a part of it. The questionnaire contains 6 statements, e.g., “I help and support others when needed.” The reliability of the questionnaire was good (alpha = 0.76).

**Resilience** – measured using the Brief Resilience Scale, which measures the subject’s ability to cope with crises and unexpected events (based on Smith et al., 2008). The questionnaire contains 5 statements, e.g., “I can cope well with unexpected problems.” The reliability of the questionnaire was good (alpha = 0.78).

**Self-esteem** – measured using the Rosenberg Self-Esteem Scale, developed by Rosenberg (1965). The questionnaire contains 4 statements, e.g., “I am capable of doing things as well as most people.” The reliability of the questionnaire was good (alpha = 0.74).

**Sense of belonging at the club** – measured using a brief questionnaire that measures the subject’s perception of their belonging to the club. The questionnaire contains 3 statements, e.g., “I experience positive feelings when I come to the club.” The reliability of the questionnaire was good (Cronbach’s alpha = 0.75).

### 3. Evaluation process

The variables were measured at two points – March and August 2024.

**Chart 1: Course of the evaluation process**

<b>March 2024</b>		<b>August 2024</b>
First administration of the questionnaires	Club activities	Second administration of the questionnaires

In order to examine statistically significant differences between the two measurement points, *t*-tests were performed and *p*-value data were produced. A *p*-value lower than 0.05 means a statistically significant figure indicating a significant improvement between the two measurement points.

## Findings

### 1. Changes in psychological measures over the course of the year – entire sample

Chart 2 compares the psychological measures before and after club activities among all the participants.

The findings show a significant rise of about 15% in the average **self-efficacy** of the participants between the measuring points ( $p=.01$ ). This means that, at the end of the year, the teenagers feel a greater ability to set and achieve goals, to show determination and persistence, and to face challenges on the way to achieving their goals.

Additionally, a significant rise of about 25% was found in the **social skills** of the participants between the measuring points ( $p=.01$ ). This means that at the end of the year the teenagers feel that they are better able to communicate with others, to feel like they belong to a group, to express their feelings in a group setting, and to support others when needed.

Additionally, a significant rise of about 31% was found in the **resilience** of the participants between the measuring points ( $p=.01$ ). This means that, at the end of the year, the teenagers feel better able to deal with crisis situations and to recover optimally from them.

It was also found that there was a significant rise of about 23% in the participants' average **self-esteem** between the measuring points ( $p=.01$ ). This means that, at the end of the year the teenagers feel greater self-esteem, feel as capable as most other kids their age, and have a positive approach towards themselves.

Also, a significant rise of about 14% was found in the sense of belonging to the club between the measuring points ( $p=.02$ ). This means that, at the end of the year, the teenagers experience safety and belonging at the club.

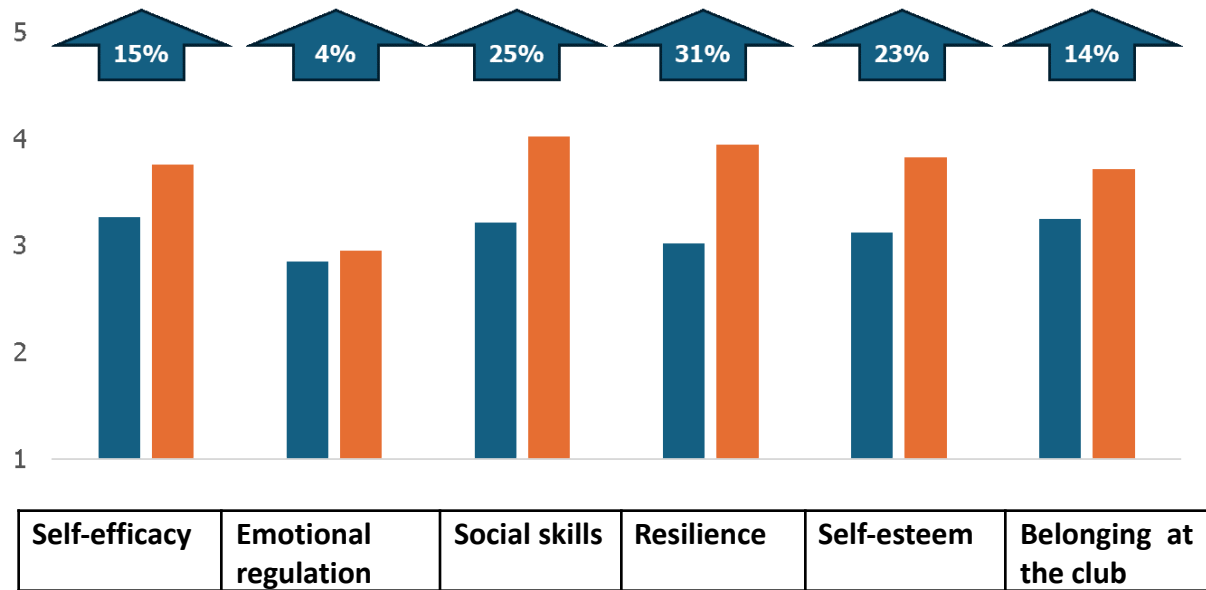
A significant rise in the **emotional regulation skills** of the participants was not noted between the measuring points ( $p=.59$ ). This means that participating in the club's activities did not have a significant effect on their emotional regulation skills.

**Table 2: Differences in the psychological measures between the two measuring points**

	Before	After	<i>p</i> -value	Improvement %
Self-efficacy	3.27 (0.74)	3.76 (0.42)	0.01	15%
Emotional regulation	2.85 (0.65)	2.95 (0.57)	0.59	4%
Social skills	3.22 (0.47)	4.02 (0.63)	0.01	25%
Resilience	3.02 (0.78)	3.95 (0.82)	0.01	31%
Self-esteem	3.12 (0.79)	3.83 (0.72)	0.01	23%
Belonging to the club	3.25 (0.72)	3.72 (0.55)	0.02	14%

Note: The table displays averages and standard deviations (in parentheses) at each point. When the *p*-value is below 0.05, the change is statistically significant.

**Chart 2: Differences between the two measuring points**



Legend: Blue – before; orange - after



## 2. Changes in psychological measures over the course of the program – girls vs. boys

Tables 3 and 4 compare the psychological measures before and after the club’s activities, divided by gender.

The findings show that while the boys experienced a significant increase of about 20% in their **self-efficacy**, the girls experienced only a non-significant ( $p=.18$ ) increase of 11%.

The **social skills** of both boys and girls were significantly improved. However, the improvement was more noticeable with the girls (30%,  $p=.01$ ) than with the boys (19%,  $p=.02$ ).

It was also found that the **resilience** of both boys and girls was significantly improved, and to similar degrees (boys – 31%,  $p=.01$ ; girls – 30%,  $p=.01$ ).

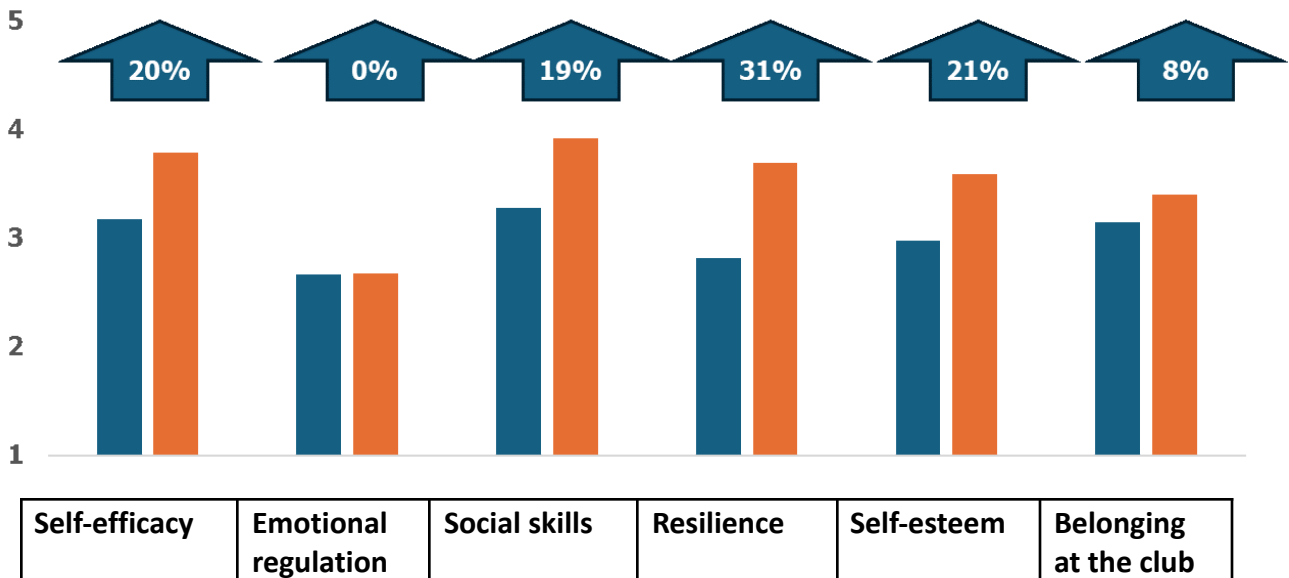
Similarly, the **self-esteem** of both boys and girls was improved significantly, and to similar degrees (boys – 21%,  $p=.04$ ; girls – 24%,  $p=.02$ ).

The girls reported a significant and meaningful increase in their sense of **belonging at the club** (21%,  $p=.02$ ). Among the boys, on the other hand, no significant change was found (8%,  $p=.34$ ).

**Table 2: Differences in the psychological measures between the two measuring points among boys**

	Before	After	<i>p</i> -value	Improvement %
Self-efficacy	3.17 (0.67)	3.78 (0.39)	0.02	20%
Emotional regulation	2.66 (0.60)	2.67 (0.60)	0.99	0%
Social skills	3.28 (0.45)	3.92 (0.69)	0.02	19%
Resilience	2.81 (0.75)	3.69 (0.76)	0.01	31%
Self-esteem	2.97 (0.79)	3.59 (0.74)	0.04	21%
Belonging to the club	3.14 (0.68)	3.40 (0.51)	0.34	8%

**Chart 2: Differences between the two measuring points among boys**

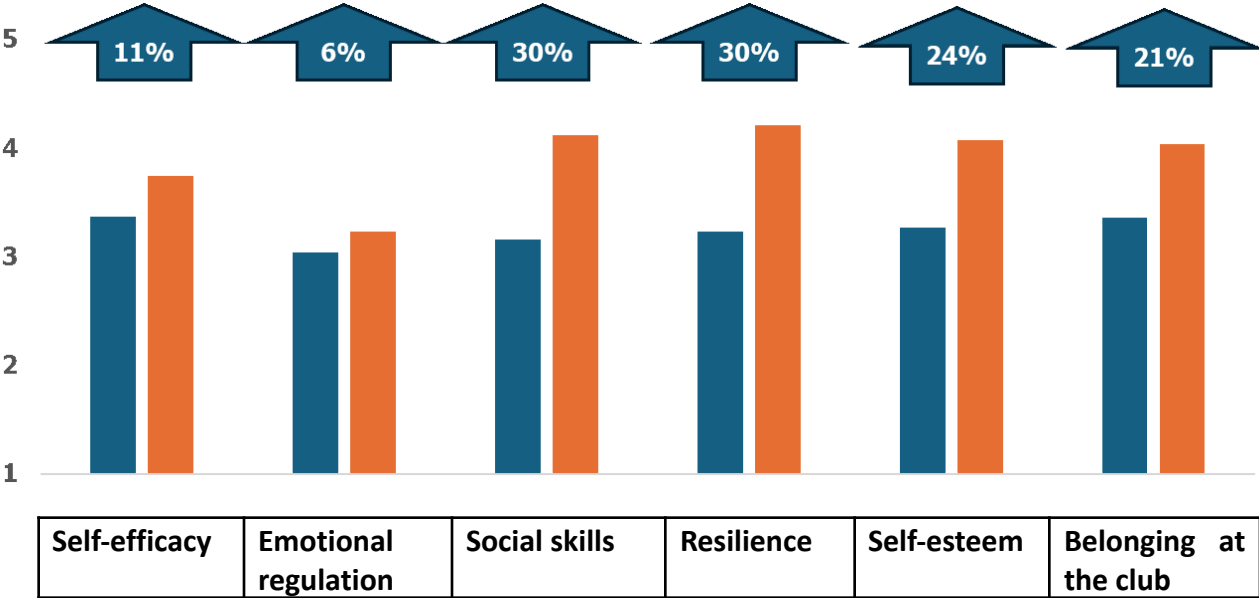


Legend: Blue – before, orange - after

**Table 3: Differences in the psychological measures between the two measuring points among girls**

	Before	After	<i>p</i> -value	Improvement %
Self-efficacy	3.37 (0.77)	3.74 (0.39)	0.18	11%
Emotional regulation	3.04 (0.59)	3.23 (0.58)	0.44	6%
Social skills	3.16 (0.43)	4.12 (0.59)	0.01	30%
Resilience	3.23 (0.75)	4.21 (0.76)	0.01	30%
Self-esteem	3.27 (0.77)	4.07 (0.76)	0.02	24%
Belonging to the club	3.36 (0.77)	4.04 (0.50)	0.02	21%

**Chart 3: Differences between the two measuring points among girls**



Legend: Blue – before, orange - after

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