**Effectiveness of Goal-Setting Training on the Psychological Flourishing of Students**

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### Abstract

**Background:** Goal-setting is believed to have an effective role in life owing to certain properties, such as highlighting the importance of individuals’ understanding about their existence and helping them plan for and reach their goals of having a worthwhile life. The present study aimed to investigate the effectiveness of goal-setting training on the psychological flourishing of primary school boy students in 2019.

**Methods:** The research method was quasi-experimental with a pre-test and post-test design with a control group. The research population included all the primary school boy students in Dowlatabad city, Isfahan province, Iran in 2019. Using convenience sampling, we selected 40 students and randomly divided them into experimental and control groups (n=20 per group). The experimental group underwent nine sessions (90-minute sessions and three sessions a week) of goal-setting training whereas the control group received no intervention. The research tool was Human Flourishing Questionnaire (HFQ). Analysis of covariance (ANCOVA) was performed in SPSS software version 24.0 to analyze the data.

**Results:** The mean ± standard deviations (SD) of the post-test scores for positive emotion, relationships, meaning, and achievement were respectively 24.58 ± 5.02, 23.05 ± 3.67, 24.05 ± 3.03, and 22.70 ± 3.35 in the experimental group and 21.45 ± 5.29, 18.80 ± 2.87, 19.35 ± 2.97, and 19.15 ± 3.13 in the control group. The results indicated that goal-setting training was effective on the psychological flourish and its parameters of the primary school students (P<0.001).

**Conclusion:** Goal-setting could result in educational life satisfaction among students and provide the opportunity for their psychological flourish and development.

**Keywords:** Goal-setting, Flourishing, Positive emotion, Meaning, Students


### 1. Introduction

Students, as an important part of society, hold a pivotal role in handling the future of the country. Moreover, a society’s health and the future of the country are in direct association with the quality of the lives of a country’s students (1). Human flourishing is a subject that has long occupied the minds of experts. It has recently attracted the attention of a branch of psychology called positive psychology (2). Positive psychology is the study and examination of optimal performance and its objective is to discover and enhance factors that are conducive to individuals, families, and social success and flourishing (3).

The recently acknowledged aspects of flourishing include positive emotion, relationship, meaning, and achievement presenting the comprehensive welfare theory altogether (4). Psychological flourishing is a novel notion created around the recent theories of human flourishing and psychological-social welfare, such as the human’s universal psychological needs, meaning and purpose in life, involvement in the activities, self-esteem, positive social relations, optimism, and the sense of competence (5). Therefore, one of the methods that seems to be able to establish psychological flourishing in individuals is goal-setting training. The goals are external incentives that attract people by stimulating human motivations (6). The flourishing of the students is an ontological motive to create their real self and this trend is considered as a constructive social phenomenon (7). Hosseini and colleagues (8) reported a significantly positive relationship between self-flourishing and the...
advancement motive. According to them, self-flourishing is related to numerous factors. This does not mean that every self-flourishing individual necessarily experiences a high level of educational achievement in every field. Moreover, the educational achievement motive is related to various factors, including economic and social conditions, the presence of motive in the family, proper educative methods, parents’ level of education, and personality type.

Goal-setting is an observational attitude forwards. Individuals and their concerns about the future are placed in the center of dynamic psychology (9, 10). Herein, the notion of the future is subjective (rather than objective). That is to say that individuals play a major role in building their future. The real future is something we have aimed for, a major part of which may be excluded from the individuals’ scope of consciousness (11), that is, the presence of a group of leading or directing ideas that play a part in this regard. Although objective, hereditary, and environmental agents are involved in its formation, a major part is still under the influence of the individuals’ mental structures and is resulted from their creativity and innovation (12). Therefore, their unconscious objectives play a critical role in the formation of their future. These objectives are primarily in line with the formation of the stability and unity of the personal structure of the individuals, regarded as a basis for their outlook towards the universe. They would only be revealed once we specifically evaluate them (13, 14).

Goal-setting is defined as individuals’ awareness about their orientation unto a defined goal (15). Goal-setting means having short-term, middle-term, and long-term purposes in life (16). A finalist individual shows a copious interest in daily life events and actively gets involved in them (17). Goal-setting has an effective role in life; it highlights the importance of individuals’ understanding about their existence and helps them plan for and reach their goals of having a worthwhile life (18). Mental health means that individuals have a greater goal and objective in life to follow and maturity means having a clear feeling about the destination (19). Goal-setting is a need for an individual since they need to have the capability of determining a long-term target and to turn it into accessible short-term ones, supervising an assessable process for it, and drawing implementable useful solutions having a perspective with a new target if the previous ones are finalized (16). This plan is a solution for the enhancement of mental and physical performance in every aspect of life during lifetime (20).

Wang and Eccles (21) depicted that the motive of achievement and having a target leaves a significant impact on the students’ involvement and enthusiasm for learning. In addition, Pekrun and co-workers (22) concluded that purposefulness has a relation with learning and educational achievement and the emergence of negative thoughts and emotions, such as stress and anxiety, leads to a drop in performance. Accordingly, those individuals with high motivation and a tendency for achievement would have a great level of persistence and pursuit in all areas, specifically in education. Hemmatian and colleagues (23) stated that goal-setting training contributes to an increase in learning self-leadership and the motivation for achievement among high school students.

Given the importance of goal-setting in individuals, a major body of research has been allocated to management and sports while a little has been carried out on psychology, where the absence of coherent planning for goal-setting is evident (24). Considering the outstanding role of goal-setting in the achievement and improvement of humans’ life, the importance of self-flourishing for the students is among the critical and basic factors for the future of a country and their personal life (25). Given the paucity of studies on the psychological flourishing in primary school students, we conducted the present study to investigate the effect of goal-setting training on the psychological flourishing of students.

2. Methods

This quasi-experimental study consisted of all the primary school boy students in Dowlatabad city, Isfahan province, Iran in the academic year 2019-2020. Due to the special condition of COVID-19 pandemic and because the teachers held virtual and online courses under Web Sky Room software from March 2019, all the students used a parent’s personal computer or smartphone. Accordingly, the goal-setting training was carried out virtually through the above-mentioned program in the virtual environment. The inclusion criteria were male students aged 8-11 years, written consent to participate in the study completed by the students’ parents, no mental illness, and no concomitant psychological or medical treatment. The exclusion
criteria were reluctance to continue the treatment process and more than two sessions of absence from the treatment. To select the sample via simple random sampling, one school was selected among the boys’ primary schools in Dowlatabad city. Subsequently, three classes were randomly selected from the classes of this school. The total number of the students in these three classes was 90. In the next stage, the flourishing questionnaire was distributed. Finally, 40 students with the lowest scores were selected and were then randomly divided into two groups, namely experimental and control. We had 20 students in each group through the use of G-power software with an effect size of 1.8, a test power of 0.90, and \( \alpha = 0.05 \) (26). Randomization was done by the researcher after obtaining the participants’ consent and the participants were assigned to the groups via a coin-throwing method. The toss of a coin to randomly assign a decision traditionally involves throwing a coin into the air and seeing which side lands facing up (27). For each participant in the experimental group, a coin was thrown into the air once, and the members of the experimental group were first selected; the remaining individuals were primarily considered as a control group. Both groups underwent a pre-test. The experimental group underwent nine sessions (90-minute sessions with three sessions a week) of goal-setting training. No treatment intervention was administered for the control group. The respondents were ensured that the information provided in the questionnaire would remain confidential.

### Research instruments

**Human Flourishing Questionnaire (HFQ):** This questionnaire is composed of 28 questions designed by Soleimani and co-workers (28). The flourishing questionnaire had a four-factor structure, including positive emotion, relationships, meaning, and achievement. Every factor encompasses seven questions. In this questionnaire, questions number 1, 5, 9, 13, 17, 21, and 25 were allocated to the measurement of positive emotions; questions number 6, 2, 10, 26, 22, 18, and 14 were considered for the measurement of the relationships; questions number 27, 23, 19, 15, 11, 7, and 3 were used.

### Table 1: The content of goal-setting training sessions

<table>
<thead>
<tr>
<th>Sessions</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Session one</td>
<td>Establishing a relationship and interaction with the group members/introducing the examiner and the members of the educational group/introducing the instruction course and describing its principles and regulations/holding the pre-test/creating tendency and delight for cooperation among the members of the experimental group/presenting real examples of the application of goal-setting in the education, career, and life/presenting an .intoductive and simple definition of the goal and goal-setting</td>
</tr>
<tr>
<td>Session two</td>
<td>Reviewing the studies presented in the previous session/a full introduction of the goal, goal-setting, and the analysis of the goal/instructing and clarifying the different types of goal (short-term, middle-term, and long-term)/instructing and explaining the stages of analyzing the goal (the instructions of turning the general goals into accurate educational ones)/presenting homework proportionate with the educational content of this .session for the members for their better learning</td>
</tr>
<tr>
<td>Session three</td>
<td>To determine the goals/presenting homework proportionate with the Heartfelt Animated Requires Difficult (HARD) and Specific Measurable At-tainable Realistic Time bounded (SMART) content, reviewing the homework of the previous session and providing proper feedback/teaching the .educational model of this session to the members for establishing better learning</td>
</tr>
<tr>
<td>Session four</td>
<td>A brief review of the previous session and presenting proper feedback, completing the personal ideal perspective form according to the Specific Measurable At-tainable Realistic Time bounded (SMART) and Heartfelt Animated Requires Difficult (HARD) model by every member/discussing and reviewing the personal ideal perspective form completed by the members and the instructor, presenting a proper feedback, and amending and correcting it if training is required for the group members to identify the points to be improved (the gap between the status quo and the optimal status)/emphasizing the importance of self-assessment in the goal-setting process: at this stage, the members of the experimental group assessed their goal-setting based on the SMART model. At this stage, the members were trained on how to use the results of self-assessments in improving .their status quo</td>
</tr>
<tr>
<td>Session five</td>
<td>A brief review on the previous discussions/introducing the Strengths, Weaknesses, Opportunities, and Threats (SWOT) matrix and its full description/completing the SWOT matrix done by every member of the experimental group/discussing and examining the SWOT matrix completed by the .members and the instructor, presenting proper feedback, and amending and correcting it if required</td>
</tr>
<tr>
<td>Session six</td>
<td>A brief review on the previous discussions/teaching how to turn the goals and opportunities extracted from the SWOT matrix into functional goals/teaching how to compile the success criteria and goal achievement, how to use the necessary resources and support, and how to compile a time table to achieve each goal/completing the personal goal-setting plan form by every member of the experimental group/discussing and reviewing the .personal goal-setting form completed by the members and the instructor, presenting proper feedback, and amending it if necessary</td>
</tr>
<tr>
<td>Session seven</td>
<td>A brief review on the previous sessions and trouble-shooting if necessary/recording the goals of every member to be implemented in the format of a notebook called goal-setting and its analysis/teaching how to compile a proper time table regarding each individual’s objective and goal-setting ./from one week to three months</td>
</tr>
<tr>
<td>Session eight</td>
<td>A second assessment and feedback and the repetition of the stages: reviewing and evaluating the individuals’ goal-setting plan by the researcher, .presenting the required feedback to the individuals, preparing the individuals for repeating some stages, or leading them towards the next goal</td>
</tr>
<tr>
<td>Session nine</td>
<td>Conducting the post-test by the researcher/appreciation to all the members.</td>
</tr>
</tbody>
</table>
for the measurement of determination or internal coherence, and questions number 8, 4, 12, 16, 20, 24, and 28 were allocated to the measurement of achievement. Every question comes with 6 choices of fully agree, partially agree, somehow agree, somehow disagree, partially disagree, and fully disagree respectively scored of 6, 5, 4, 3, 2, and 1 on a Likert scale. The total score of flourishing is calculated by summing up the scores of the entire questions of the questionnaire. The maximum and minimum scores of this questionnaire are 28 and 168 and the score of each factor is between 7 and 42. Higher scores indicate greater psychological flourishing.

Soleimani and co-workers (28) concluded that considering the suitability of content validity (experts’ opinion), convergent validity (concurrent implementation of Flourishing Questionnaire with Ahvaz Self-actualization Questionnaire and Diener’s Flourishing Questionnaire (29)), and divergent validity (concurrent implementation of HFQ with Beck’s Depression Inventory), the HFQ could be employed in psychological studies to measure individuals’ flourishing. The face validity of the human flourishing questionnaire was evaluated through both qualitatively and quantitatively methods. Qualitatively face validity of this questionnaire was determined by 10 people to find the level of difficulty, inconsistency, and ambiguity of phrases and meanings of words, whose opinions were applied as minor changes in the questionnaire. To quantitatively face validity of the human flourishing questionnaire, the impact score of each question was calculated (28). Ziaee and colleagues (30) reported an alpha Cronbach coefficient of 0.95 for the whole questionnaire. In this study, Cronbach’s alpha coefficient was 0.82 for the questionnaire.

**Executive protocol**

Goal-setting training: The experimental group received goal-setting training over nine 90- minute sessions held three times a week. Table 1 depicts a summary of the training sessions (23).

**Statistical analyses**

The data were analyzed via descriptive and inferential statistics, including the mean, standard deviation, and multivariate analysis of covariance. The Kolmogorov-Smirnov test was performed to examine normal distribution of the pre-test and the post-test. In addition, analysis of covariance (ANCOVA) was performed to examine the effects of the goal-setting training on psychological flourishing among the students. Furthermore, SPSS version V24.0 was used to analyze the data.

**3. Results**

The participants included 40 primary school students aged 10.78 ± 2.24 years old. Table 2 presents the mean and standard deviation (SD) of the studied variables in the experimental and control groups in the pre-test and post-test. According to Table 2, the mean of the flourishing factors, including positive emotions, relationships, meaning, and achievement, showed a rising trend in the post-test compared to the pre-test. Regarding the normal distribution of the dependent variables in the groups, the results of Kolmogorov-Smirnov test exhibited that the studied variable follows a normal distribution.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Phase</th>
<th>Experimental group</th>
<th>Control group</th>
<th>P value (within groups)</th>
<th>P value (between groups)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive emotion</td>
<td>Pre-test</td>
<td>20.40 ± 6.05</td>
<td>20.80 ± 5.58</td>
<td>0.869</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>24.58 ± 5.02</td>
<td>21.45 ± 5.29</td>
<td>&lt;0.001</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Relationships</td>
<td>Pre-test</td>
<td>17.95 ± 2.87</td>
<td>18.25 ± 3.20</td>
<td>0.435</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>23.05 ± 3.67</td>
<td>18.80 ± 2.87</td>
<td>&lt;0.001</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Meaning</td>
<td>Pre-test</td>
<td>19.65 ± 3.48</td>
<td>19.00 ± 4.14</td>
<td>0.798</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>24.05 ± 3.03</td>
<td>19.35 ± 2.97</td>
<td>&lt;0.001</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Achievement</td>
<td>Pre-test</td>
<td>18.50 ± 3.88</td>
<td>18.85 ± 3.35</td>
<td>0.824</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>22.70 ± 3.35</td>
<td>19.15 ± 3.13</td>
<td>&lt;0.001</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

M ± SD: Mean ± Standard deviation
Since the multi-variant effect was statistically significant, the separate single-variable F test was used for every parameter of flourishing. After eliminating the pre-test effect of the F statistic of the covariance analysis, the comparison between the test and control groups concerning the parameter of positive emotion was significant ($P<0.001$ and $F_{1, 34}= 61.33$). Following the elimination of the pre-test effect, the F statistic of the covariance analysis for the comparison between test and control groups was significant in the relationship's parameter ($P<0.001$ and $F_{1, 34}=29.76$).

4. Discussion

The present study aimed to investigate the effectiveness of goal-setting training on the psychological flourishing of primary school boy students. The results revealed that goal-setting training was effective on the improvement of the flourishing parameters (positive emotion, relationships, meaning, and achievement) of the students. This finding is consistent with those of Hemmatian and co-workers (23) and Cairns and co-workers (20).

Hemmatian and colleagues (23) reported that the ability of goal-setting is extremely critical and basic for the students’ study and comprehension and in many cases, students do not completely know the correct usage of this possibility in the educational environments, which leads to their educational decline and inaccessibility of the desired outcomes of the education. In fact, purposefulness is one of the fundamental and effective conditions provoking the individuals to learn. Once a person perfectly knows the target of learning, their interest in learning increases and their efforts would be doubled. To this end, the intensity and degree of the students’ interest could be assessed.

To explain the findings, it could be stated that the purpose in life is the forming factor of the humans’ positive performances. Those individuals who chose significant goals of life, experience more positive emotional states and hence, they are subject to flourishing in different aspects of their lives (31). Purposefulness and goal-setting go opposed to certain negative parameters, such as lack of personal growth, lack of cognized control over the environmental events, depression symptoms, and rumination and they could result in psychological well-being and welfare (32). There is a high probability of setting the purpose of life around educational achievement in the students’ population. Therefore, pursuing these targets may increase educational life satisfaction for the students and provide an opportunity for the development of their mental flourishing. It should be acknowledged that purposefulness in life is under the influence of life activities and events and finding an objective for the efforts and challenges of life contributes to the acceptance of the positive emotions in individuals. This positive attitude and these positive emotions about oneself and their life is affected by having the feeling of significance and purposefulness in life, which drives the individual towards self-confidence and consequently helps the formation of positive emotions in the individual. Negative emotions are controlled or reduced by exploiting the positivism of negative emotions and individuals would be capable of facing negative emotions effectively. This emotion and positive attitude towards daily life enable the students to develop a more cheerful life. Thus, these positive emotions are effective on consistency, satisfaction, living better, and mental welfare.

The establishment of warm and friendly relationships with others and the ability of compassion in the social relationships are affected by goal-setting as having a foal in its real sense predicts the individual’s welfare and is probably one of the most important sources of personal welfare (33). Good relations are the best predictor of life satisfaction. Purposefulness in the educational position indicates individuals’ motivation of education, affecting their responses in the learning and training position. Goal-setting could explain the relationship between the students’ beliefs about educational success and involvement in and continuation of doing homework under learning and education conditions. With regards to certain parameters, such as happy life, joy, the ability to solve problems, and optimism, positivist psychology focuses on the question of how humans’ life would flourish and how humans would reach their abilities.

In this regard, goal-setting was the only parameter that resulted into an increase in focus, efforts, persistence, and achievement regarding reach goals, empowered the focus of efforts and persistence, and paved the road toward flourishing. This study had certain limitations; a specific region and male elementary school students were the subjects of this study, which would limit the possibility of generalizing the results to other groups in society.
5. Conclusion

Goal-setting training was found to be effective on the students’ psychological self-flourishing. It could be concluded that goal-setting instruction is effective on the improvement of and tendency for flourishing. Hence, our hypotheses hold, and the results can be an approval of the advantages of goal-setting training. According to the desired results obtained herein, it could be recommended to examine the effectiveness of goal-setting training package on the parameters of flourishing among other groups and social textures and to hold training courses with the theoretical basis of goal-setting and flourishing in line with the targeted development of positive psychology among students.

Ethical Approval: The study was approved by the Ethics Committee of Payame Noor University with the code of IR.PNU.REC.1398.63736.

Conflict of interest: None to declare.

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