The Effectiveness of a Training Program Based on Goal Orientations Among Jordanian Students

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Abstract
The present study aimed at exploring the effectiveness of a training program based on goal orientations. A sample of 69 female students at Tala' Al-Ali School in Jordan was chosen and distributed randomly into the experimental and control groups. To achieve the objectives of this study, the researchers had constructed training program to modify students' types of goal orientation. Also, the researchers developed the goal orientation scale and obtained good validity and reliability indicators. The results showed that there was a significant statistical difference at the level of $\alpha \leq .05$ in the postscores of the goal orientation domains in favor of the experimental group. In addition, there was no statistical difference at the level of $\alpha \leq .05$ between the posttest and delayed scores in the experimental group indicating the continuity of the effect of the training program on the experimental group.

Keywords
motivation, goal orientations, training program, Jordan

Introduction
A number of professionals in the field of education, such as teachers, counselors, and parents, face lack of genuine desire among students to learn, which directly affects academic achievement. Some of the students seem to study with enthusiasm and have a high motivation to learn, while others suffer from caution and reservation and normally have low achievement (Reeve, 2009).

Motivation to learn is a fundamental pillar of the educational system and psychologists consider it as the most important factor that helps students to understand and acquire knowledge and skills. The teacher is the mediator and simulator that could move the motivation process and allow students to learn effectively (Orey, 2010).

Many theories of motivation have emerged and attempted to explain the motives that affect behavior patterns. Tolman in his Intentionality Behavioral Theory assumes that the behavior can be directed toward the goal, and that students can acquire means to achieve the goals. In addition, Tolman, along with Atkinson, came up with the theory of “Expectancy-Value” which clearly indicates that students show high motivation when they believe they have a chance for success, and when the targets they are trying to achieve reflect an important goal in their lives (Petri & Govern, 2004). Atkinson added to the “Expectancy-Value Theory” the need to avoid failure and emphasized that achievement motivation will create a balance between emotions and beliefs needed to avoid failure (Reeve, 2009).

McClelland classifies motivations and needs into three categories: first, the need for achievement; second, the need for affiliation; and, third, the need for power. McClelland has been influenced by Tolman’s theory stating that these motives are learned regardless of gender or culture. Needs also can affect our daily behavior and, sometimes, one need can dominate most of our behavior (McClelland, 1987).

McClelland cognitive theory emphasizes the difference between internal and external motivation and examines the role of the expectations of students, their environment, and the importance of goals in guiding their behavior as well as the interpretation of these behavioral patterns, their success, or their failure. The cognitive theory also emphasizes self-reinforcement, which is based on the beliefs and expectations and the types of attribution on success and achievement (Snowman & Biehler, 2003).

Goal Orientations
The definition of goals varies depending on the different schools of psychology. A goal is usually defined as what the

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individual wants to achieve in the future and is looking forward to reach. Ames (1992) has defined goal orientation as an integrated pattern of beliefs which lead to different methods and respond to the positions of achievement. Furthermore, Cury, Elliot, Fonseca, and Moller (2006) point out that the orientation of an objective is how to represent the behavior of the individual based on the efficiency which she or he seeks to achieve or avoid according to their beliefs and perceptions about their abilities.

Previous research has distinguished different types of goals, each linked to various terms of emotional, behavioral, and cognitive patterns (Ames, 1992). Locke and Latham (1990) suggest two types of goals: difficult goals compared with easy goals and clear goals versus mysterious goals. Difficult and moderate goals evoke high performance more than easy goal, and clear goals evoke higher performance than vague goals.

Several researchers have classified goal orientations into many categories. Ames (1992) classifies goals as follows:

1. Mastery goals: Individuals seek to increase efficiency and mastery of new skills; they focus on learning, understanding, and skill development.
2. Performance goals: Individuals seek to demonstrate competency in competition compared with the others, and try to get a learner’s support for efficiency in the form of positive provisions, or avoid negative judgments.

The individual who adopts the goals of perfection is characterized by the development of efficiency and challenge and make the effort, progress, and self-sufficiency. The individual who feels helpless when attempting performance goals often tend to seek positive appreciation and avoid negative judgments about his ability.

The previous classification of goal orientation was modified by Elliot and Church (1997) as follows:

1. Mastery goals: These are positively correlated with the learning outcomes through the deep processing of information, and they increase internal motivation.
2. Approach-performance goals: The individual competes with others to gain acceptance, and superior appearance.
3. Avoidance-performance goals: These are associated with learning outcomes, due to mental distractions during the study, the surface of the information processing, and low internal motivation.

The concept of goal orientation can help students to understand their motivation for achievement. Teachers, administrators, and parents should encourage students to embrace mastery goals as they help to develop and improve cognitive efficiency while learning new materials. Students who embrace mastery goals are capable of more in-depth and detailed strategies. Therefore, they prefer to choose tasks that require challenging and high level of difficulty, and they show positive attitudes toward learning. In contrast, students who embrace performance goals tend to use strategies that are more superficial, choose easier tasks, and make little effort when faced with difficulty (Finney, Pieper, & Barron, 2004).

Previous Research

Brelan (2001) has conducted a study to examine the role of learning goals and performance goals in the identification and selection of personal goals. The study attempts to verify the ability of the orientation goals to predict the selection of individual goals and self-efficacy. The results of the study show that both types of the goal orientations (learning and performance) work well as predictors of the goals of the individual, as well as good predictors of the self-efficacy of the individual.

Droe (2012) has also conducted a study aimed at identifying the impact of verbal praise on goal orientations, motivation, and attribution. The results indicate that different types of verbal praise affect goal orientations where students who have been praised for the effort have chosen learning goals, while students who are praised for their ability or talent have chosen performance goals.

Price (1998) examines changes in goal orientation in relation to intrinsic motivation, self-efficacy, and attributions. Results of the study show that individuals who embrace goals oriented toward the task are motivated internally and look for the effort to improve their abilities, while individuals who embrace goals oriented toward ego are driven externally and look for their ability of being fixed.

Some studies have tried to detect goal orientations among students in universities, and to identify the importance and patterns of goal orientations exposed by students (Grast & Ried, 1999). Few studies have focused on the idea of training students to change the orientation of their goals. Few attempts for training programs on goal orientations have shown to increase motivation of the students and their achievement, and the ability of training to move students toward mastery goals (Haynes, Daniels, Stupnisky, Perry, & Hladkyj, 2008).

Problem of the Study

Based on personal experiences of the researchers through working with students at various schools and universities, they have noticed that students face many problems related to achievement and several types of behavioral problems. These problems are often a result of low motivation or of the fact that their motives are not directed in the proper manner toward achieving mastery goals, which require a high level of internal motivation. As mastery goals are positively correlated with the learning outcomes through the deep processing of information, and high internal motivation (Elliot &
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Church, 1997), the present study attempts to influence students to change their goal orientation through directing them toward adopting more mastery goals than approach-performance goals and avoidance-performance goals. The study attempts to test the following hypotheses:

**Hypothesis 1**: There are no statistically significant differences ($\alpha \leq .05$) between goal orientation dimensions’ scores of the experimental group and the control group.

**Hypothesis 2**: There are no statistically significant differences ($\alpha \leq .05$) between goal orientations dimensions’ postscores and delayed scores of the experimental group.

**Significance of the Study**

Research studying the effect of training programs on goal orientation is very limited. In addition, research addressing the issue of goal orientation and its relation to learning and motivation in Jordan and the Arab world is generally rare based on published research. Practically, the study provides a training program based on goal orientation and a scale measuring goal orientation in Arabic for the first time. Providing a training program and a scale on goal orientation will be of value for further research in the Arabic region and can be used by school counselors to measure goal orientation or enforce mastery goals on certain students.

**Definition of Goal Orientation**

For the purpose of this study, goal orientation is defined as the mental representations of things that an individual wants to accomplish, and that work as orientations to determine behavior and its direction (Kaplan & Maehr, 2006). The goal orientation scale will provide three subscores describing mastery goals and two performance goals (approach-performance goals and avoidance-performance goals).

**Materials and Methods**

**Participants**

A sample of 69 female students from the 10th grade of basic school (Tla’ Al-Ali for girls) has been chosen. The sample has been randomly assigned to the experimental group ($n = 35$) and to the control group ($n = 34$).

**The Study Tool**

To gather data for the scores of goal orientations, the researchers reviewed previous studies and scales (Brett & Walle, 1999; Elliot & McGregor, 2001; Midgley, Kaplan, Middleton, & Maehr, 1998; Vandewalle, 1997) and developed a new scale for this purpose.

The new goal orientation scale consists of 33 self-report items using 5-point Likert-type responses that range from *always, often, sometimes, rarely, to never*. The items were distributed on three dimensions, 13 items measure the mastery goals, 10 items measure the approach-performance goals, and 10 items measure the avoidance-performance goals based on the classification of Elliott and Church (1997).

**Table 1. The Reliability of the Goal Orientation Scale.**

| Dimensions            | Number of items | Cronbach’s $\alpha$ | Stability coefficient |
|-----------------------|-----------------|----------------------|-----------------------|
| Mastery goals         | 10              | .77                  | 0.75                  |
| Approach-performance  | 9               | .89                  | 0.92                  |
| Avoidance-performance | 9               | .43                  | 0.68                  |

**The Validity of the Scale**

The scale was presented to a panel of 10 psychologists (educational and cognitive psychologists) who volunteered to judge the scale in term of goals, dimensions, and language. Based on the request of 80% of the judges, five items were deleted and eight items were modified, so the scale consisted of 28 items.

To ensure construct validity of the scale, the new scale was distributed to a sample of 39 students and correlations between item scores and subscales scores were calculated. These correlations ranged between .28 and .84 which indicates a good construct validity of the scale.

**The Reliability of the Scale**

To ensure the reliability of the scale, the researchers used data from the validity sample and repeated the test after 2 weeks. Two measures were calculated, Cronbach’s alpha for internal consistency and Pearson correlation equation for stability reliability. The data in Table 1 show the reliability values, which are considered good indicators of reliability of this scale.

**The Training Program**

This study aims to study the effectiveness of the training program based on goal orientations as perceived by Elliott’s theory (Elliot & McGregor, 2001). The main goal of the program was to modify students’ performance goals to mastery goals. The program consisted of 12 sessions, in addition to the primary and final sessions, each lasting about 40 min which was carried out by one of the researchers and lasted about 7 weeks.

The program included a set of general guidelines intended for students through the sessions, including respect for others’ opinions, avoiding direct criticism, and emphasis on the confidentiality of information. A number of training
The Design of the Study

The study employed an experimental method that used a two pre–postdelayed design with the goal orientation scores as the dependent variable and the training on goal orientation as the independent variable as shown below:

| G1 R | O1 | X | O1 | O1 |
|------|----|---|----|----|
| G2 R | O1 | — | O1 | — |

This design was appropriate for the purpose of the present study because it allowed for experimental and control group, pre–postdelayed scores were collected, and covariate analysis was used to control for the pre-differences in goal orientations.

Results

First, the results of the first hypothesis are as follows: There are no statistically significant differences (α ≤ .05) between goal orientation dimensions’ scores of experimental group and the control group. To verify this hypothesis, means and standard deviations for students’ goal orientation dimensions’ scores of (pretest and posttest scores) for the experimental and control groups were calculated and are shown in Table 2.

Table 2 shows that there are apparent differences among the three dimensions of goal orientations on the posttest and pretest based on group. To detect statistical significance of these differences, the MANCOVA was used, as shown in Table 3.

Table 3 shows that there are significant differences at the level of α ≤ .05 due to training on all the dimensions of the scale of goal orientations, where the results were as follows:

- There are statistically significant differences (α ≤ .05) on mastery goals (F = 5.44), and the difference was in favor of the experimental group with a mean of 46.2 while the mean of the control group was 42.88, which indicates the improvement of student’s scores in the experimental group as a result of training.
- There are statistically significant differences (α ≤ .05) on approach-performance goals (F = 15.55), and the difference was in favor of the control group with a mean of 37.70 while the means of the experimental group was 33.80, which indicates a decrease in the students’ scores in the experimental group as a result of training.
- There are statistically significant differences (α ≤ .05) on avoidance-performance goals (F = 23.87), and the difference was in favor of the control group with a mean of 31.09 while the mean of the experimental group was 27.03, which indicates a decrease in student’s scores in the experimental group as a result of training.

Second, the results for the second hypothesis were as follows: There are no statistically significant differences (α ≤ .05) between goal orientations dimensions’ postsscores and delayed scores of the experimental group. To ensure that the differences in the means are the result of the impact of the training program, an independent t test was conducted and the results are shown in Table 4.

Results of Table 4 show that there are no statistically significant differences between the two measurements of posttests and delayed tests for the experimental group on scores of goal orientations dimensions, where the values of t did not reach to the level of statistical significance (α ≤ .05). This indicates the stability of improvement in the experimental group and, consequently, the effectiveness of the program to modify the goal orientations and change them in favor of the mastery goals and decrees in the performance goals (performance-approach and performance-avoidance).

Discussion

The results revealed a significant difference in the means between the experimental and control groups on goal orientations.
orientations posttests scores. In the experimental group, the mean of students’ scores in mastery goals became higher and was the highest (46.23), while the means of the student’s in the performance goals got lower with a mean of 33.80 in the performance-approach dimension and 27.03 in the performance-avoidance goals.

These results indicate that the students adopt mastery goals more than performance goals due to the training program that encourage students to discover and increase curiosity and the proficiency required for the tasks without worrying about the others’ performance. Also, it can be interpreted through the way of the program was designed, and its activities that focused on the adoption of goals of proficiency, which the individual seeks to challenge and make the effort to increase their achievement.

Moreover, these results were affected by the strategies that encouraged active participation during the program, including discussion strategy, dialogue, and cooperation learning. The students often represented the stories that they have heard. Some students adopted the idea of the stability of the ability and tried to convince the group to embrace the mastery goals. Here, we can say that the training program which was prepared and applied to the experimental group achieved its objectives within the reality of the study population, and helped to reduce the adoption of the avoidance goals and increase the adoption of the mastery goals.

Results of the first hypothesis which referred to the program’s effectiveness in increasing the adoption of the students to the goals of being able to achieve more adoptable performance goals have been agreed with the results of a study by Haynes et al. (2008) which indicated that training program can increase students’ general internal motivation and may increase the adoption of mastery goals.

Further evidence of the effectiveness of the training program comes from the results of testing the second hypothesis which showed no statistically significant differences (α ≤ .05) between posttest and delayed tests of the goal orientations dimensions’ scores. These results confirm the continued effectiveness of the training program in the experimental group and its impact on modifying goal orientations after a month of the training program. This result can be interpreted using a variety of methods, strategies, and tools that help achieving the goal of a training program.

**Recommendations**

Based on the results of the present study, the researchers recommend the following:

- that the program be carried out for other grade students and teachers in the field of goal orientations adjustment;
- that orientation be conducted to teachers to learn about the concept of internal motivation and mastery goals due to their significant and positive impact on academic achievement;
- and that more studies be conducted in the Arab region including demographic variables such as age, gender, and specialization stream to test the effectiveness of this training program in the light of these variables.

### Table 3. MANCOVA on the Scores of Goal Orientations Dimensions Based on Group.

| Source            | Dependent variable | Type III sum of squares | df | M2  | F    | Significance | η²  |
|-------------------|--------------------|-------------------------|----|-----|------|--------------|-----|
| Group             |                    |                         |    |     |      |              |     |
| Hotelling’s value | Mastery            | 40.37                   | 1  | 40.37 | 5.44 | .02          | .08 |
| (0.87), F(18.12)  | Approach           | 324.37                  | 1  | 324.37 | 15.55 | .00          | .19 |
|                   | Avoidance          | 419.09                  | 1  | 419.09 | 23.87 | .00          | .27 |
| Covariance        | Mastery            | 0.03                    | 1  | 0.027 | 0.00 | .95          | .00 |
|                   | Approach           | 0.02                    | 1  | 0.016 | 0.00 | .98          | .00 |
|                   | Avoidance          | 70.51                   | 1  | 70.51 | 4.02 | .05          | .06 |
| Error             | Mastery            | 474.97                  | 64 | 7.42 |      |              |     |
|                   | Approach           | 1,334.86                | 64 | 20.85 |      |              |     |
|                   | Avoidance          | 1,123.77                | 64 | 17.56 |      |              |     |
| Corrected Total   | Mastery            | 536.96                  | 68 |      |      |              |     |
|                   | Approach           | 1,682.87                | 68 |      |      |              |     |
|                   | Avoidance          | 1,611.25                | 68 |      |      |              |     |

### Table 4. Independent-Samples t Test for the Differences Between the Posttest and Delayed Test on the Experimental Group.

| Dimension of variable | Level  | M    | SD  | t    | df  | Significance |
|-----------------------|--------|------|-----|------|-----|--------------|
| Mastery               | Posttest | 46.23 | 2.29 | .046 | 67  | .40          |
|                       | Delayed | 45.73 | 2.55 |      |     |              |
| Performance-approach  | Posttest | 33.80 | 7.63 | .519 | 67  | .61          |
|                       | Delayed | 34.56 | 4.03 |      |     |              |
| Performance-avoidance | Posttest | 27.03 | 4.88 | .636 | 67  | .53          |
|                       | Delayed | 26.35 | 5.77 |      |     |              |
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