

# Examining the effect of choice theory-based education on students' responsibility and procrastination

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## ABSTRACT

The present study has aimed to examine the impact of choice theory-based education on the responsibility and procrastination of female second-grade students in district 1 of Tehran. The research method was quasi-experimental, and the statistical population of this study was composed of all of the female second-grade students in district 1 of Tehran in 2020 (2150 students). Thirty students from the statistical population were selected as the research sample using the available sampling method. The data collection tools used in this study were Glasser's choice theory education (2010) in addition to two standard scales, namely Kordloo's student responsibility questionnaire (2014) and Savari's academic procrastination questionnaire (2011). Based on the research findings, choice theory-based education affects students' responsibility and procrastination ( $P < 0.05$ ). Given the intensity of effect, choice theory-based education has a greater impact on students' responsibility than their procrastination.

**Keywords:** Choice theory-based education, Responsibility, Procrastination

## Introduction

The growth of any society depends on its educational system. Therefore, all countries spend a great part of their national incomes on education every year. However, some factors lead to wastage of a part of their investments, and procrastination in students is one of them. Academic procrastination in doing academic assignments is a common problem among students and is one of the most important causes of failure or lack of success in students as far as learning and achieving academic goals are concerned <sup>[1]</sup>.

Nowadays, schools put such a great emphasis on cognitive growth and neglect other dimensions such as the social growth of students which could be somewhat problematic. Generally,

education in schools should be focused on three different areas for the students to be responsible, which are knowledgeability, responsibility, and commitment. In schools, responsibility is assessed by recognizing and respecting the needs of each student and all students as a group. A responsible student cooperates with other students in decision-making and teamwork in class and has a logical reason for everything s/he does and acts well in homework and school assignments <sup>[2]</sup>. One of the most significant barriers as far as responsibility is concerned could be school or family issues <sup>[3]</sup>.

Academic procrastination is one of the important discussions which has drawn many researchers' attention in recent years. They have referred to academic procrastination as a bad habit and a behavioral issue experienced by many individuals in their everyday routines, especially in doing assignments that have a deadline. Academic procrastination is a common phenomenon in educational centers. The rate of prevalence of procrastination in students has been measured to be between 46% and 95% <sup>[4]</sup>. Academic procrastination occasionally leads to irreparable damages for students. Procrastination is accompanied by a sense of worry for what has to be done and has not been done yet. However, some of the consequences of procrastination are

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anxiety, neuroticism, insufficient motivation, low academic performance, and poor self-assessment which are resulted from not achieving the expected results. The emphasis that reality therapy puts on self-assessment and responsibility to be successful could be helping the students so that they would have a better understanding of the fact that the reason behind their failure is just lack of effort. If students had this understanding and belief, their sense of sufficiency and self-control would not be damaged so easily. Responsibility is a variable which has shown a significant relationship with an academic procrastination and an increase in this variable leads to a decrease in procrastination [5]. Glasser (1969) believes that in order for an individual to succeed in life, s/he has to experience success in one of the important aspects of her/his life and this important aspect is certainly the school and education for many people. One of the most significant factors that not only hinders academic progress, but also negatively impacts the quality of life of students is academic procrastination [6]. To increase students' responsibility and decrease their procrastination, various therapeutic methods must be utilized, one of which is reality therapy.

Choice theory, which has been introduced by William Glasser in 1991, is an approach that puts more of an emphasis on the responsibility of individuals. Those who follow this approach establish a relationship with clients to commit to the therapeutic procedure which would then lead to an increased sense of responsibility in them. In reality therapy, the focus is on changes in behavior and then this change affects the thoughts and emotions of the clients (Sharf, 1999; translated by Firoozbakht, 2010) [7].

Choice theory helps an individual to have more control over her/his choices. In the choice theory, it is assumed that individuals are responsible for their behaviors. The purpose and aim of this therapy is to help clients to make some necessary changes in their lives and to commit to these changes. This therapeutic method focuses on accepting the reality, learning how to face it, and morally judging if one's behaviors are right or wrong [8]. Experimental studies have also confirmed that sufficient recognition, conscious goal-setting and accurate planning, which are the focus of choice theory, lead to positive results. Repeating and reinforcing these results increase the sense of self-efficacy and responsibility in students. Choice theory-based education increases happiness and hope and reduces one's stress and anxiety in doing a task. Most studies that have been conducted on procrastination in the country have paid a great deal of attention to the prevalence and the factors associated with procrastination; however, various strategies for reducing procrastination in Iran have not been examined much. Therefore, such researches are highly important at the moment. Given what was mentioned so far, the present study has aimed to answer the following question: Does the choice theory-based education affect students' responsibility and procrastination?

## Theoretical Principles of the Study

## Procrastination

Procrastination is defined as a delay in the beginning or completing a purposeful task. In another definition, procrastination is an illogical delay in a behavior or a purposeful delay in beginning or completing a task or in general in decision-making. Procrastination is the art of hoping for tomorrow and avoiding today [9].

Procrastination appears in different forms given its complexity and cognitive, and emotional and behavioral components. In studies that have been conducted thus far, four different types of procrastination have been identified. The first type of it is academic procrastination which is known as a delay in doing educational and academic tasks and leaving them for the last minute. The second category is daily procrastination which is associated with what one does in her/his daily routine. In this type of procrastination, individuals have issues as far as planning for daily tasks and completing them in a certain time is concerned. The third type is procrastination in making decisions. Individuals experiencing this type of procrastination postpone making personal decisions. The fourth type is a combination of procrastination in making decisions and doing tasks. This type of procrastination affects many different areas of one's life. In addition, various other categorizations have been mentioned, including academic procrastination, procrastination in decision-making, neurotic procrastination, and obsessive procrastination. However, the most common type of procrastination is academic procrastination [10].

## Responsibility

Responsibility includes calculating limitations and consequences of certain situations, freedoms, scores, and analyzing effective factors in different situations, and adaptation of personal behaviors. A sense of responsibility is a practical sense in using abilities and attempting to adapt to people and be compatible with others. Gaff (1968) believes that responsibility means taking into account the consequences of one's behaviors and being confident in one's behavior and a sense of commitment to a larger social structure. Responsibility is one of the dimensions of a healthy personality and an important feature in the classroom and one's daily life. Parents, consultants, and teachers play an important role in helping students become responsible at school, in their families, and in society. To create a sense of responsibility, various methods and strategies have been developed which can be implemented by the teachers in the classroom [11].

## The Role of Parents in Teenagers' Sense of Responsibility

Sociologists believe that giving teenagers tasks and responsibilities and involving them in social interactions are essential for their personal growth and entering their

adolescence and adulthood. Working is a need for any healthy human being and is the best therapy for the daydreaming of adolescence. In this regard, family plays a very important role in creating a sense of responsibility in individuals as the first institution in which an individual acquires her/his personality dimensions from the moment s/he is born. In the first year of birth, the newborn requires care from her/his parents, but after turning one, the child gradually takes responsibilities for some tasks <sup>[12]</sup>.

## Choice Theory

Glasser believes that meeting our needs have to begin in our childhood and should be continued throughout the course of one's life. Failure in learning bothers us and always leads us to search for unreal ways to meet our emotional needs. If we did not learn how to satisfy our needs, we would have to endure sadness and suffering in our lives. The sooner and the better we learn this in our adolescence, the happier life we will lead. But even if we do not fully grasp how to satisfy our own needs completely, we will have to continue this learning process throughout the course of our lives. In everyone's life, the world and one's position in it are constantly changing and it is because of this everchanging process that we need to learn, learn and learn even more to respond to our emotional needs in various situations while facing different mental pressures or "stresses". Whether we learn how to respond to our needs from our childhood or later, we need to have an emotional bond with people in any case Glasser's Choice-based education is defined in terms of procrastination and responsibility.

## Research Method

The present study had a quasi-experimental design with a pre-and post-test and a control group. This study had two groups that were observed (measured) twice. The first observation was implemented with a pre-test and the second observation was done by executing a post-test. The population of the present study was composed of all of the female students in the second grade of district 1 in Tehran in 2020 (2150 students).

The statistical sample of the research consisted of 30 female students in the second grade in district 1 of Tehran who was selected using the available sampling method out of all schools of this district.

## Data Collection Method

The data collection was done using the library and field data collection methods. The data associated with the statistical sample of the research was collected using a questionnaire.

## Data Collection Tools

### a. Kordloo's Student Responsibility Scale (2014)

This scale was developed by Monireh Kordloo (2014) to measure the responsibility of students at home and school <sup>[13]</sup>. This scale was implemented on a statistical population composed of the students of the city of Tehran where 479 male and female students in the city of Tehran were tested. The general scope of the score of the testees was between 1 and 60 and its cutting score was 30. A high score in this test was an indication of a higher level of responsibility in the students. The validity of this questionnaire was tested through correlating the questions and was obtained to be 0.82; while its reliability was obtained to be 0.89 using Cronbach's alpha coefficient; both of which showed that this scale had a high level of validity and reliability.

### b. Savari's Academic Procrastination Scale (2011)

This questionnaire was developed by Savari (2011) using the factor analysis method. This questionnaire had twelve questions associated with academic procrastination and had three components, including intentional procrastination, procrastination caused by physical-mental fatigue, and procrastination caused by lack of organization. The first to fifth questions measured intentional procrastination, questions six to nine measured procrastination caused by mental-physical fatigue, and questions ten to twelve measured procrastination caused by lack of organization. The Likert-scale scoring was used in this questionnaire as in, never (zero), rarely (1), sometimes (2), often (3), always (4). The respondents could have a score between one to 312 and the cutting score was 156. A lower score in this test showed lower levels of academic procrastination in students. Reliability of this test was calculated using Cronbach's alpha test <sup>[14]</sup>. To determine the validity of this questionnaire, Tuckman's academic procrastination questionnaire (1991) was used and by correlating these two questionnaires, the coefficient of correlation of 0.35 was obtained and it was concluded that this test is highly valid

## Execution Method:

From among the students who had lower scores on the student responsibility questionnaire and academic procrastination questionnaire, 30 students were selected as the research sample using the available sampling method and they were randomly divided into two groups; an experimental and a control group. Then, these students went through a session to get to know each other (experimental & control group). After this session, the members of the experimental group went through 8 90-minute sessions of choice theory education, two times per week, while, the control group did not receive any education. In this study, the choice theory education was developed based on Glasser's principles related to choice theory (2011) <sup>[15]</sup>. (Table 1)

**Table 1. Explaining the Sessions of Glasser's Choice Theory (1998)**

Session	Content
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Session 1	Familiarization of Group Members with Each Other Expressing the Goals of the Group Introducing the History of Choice Theory
Session 2	The Why and How of the Behaviors Introducing Basic Needs
Session 3	Introducing Inner Versus Outer Control Teaching Ten Basic Principles of the Choice Theory Introducing the Creative System and Constructive Behaviors
Session 4	The Perceived World and the Desired World Four General Behavioral Components
Session 5	Creating a Realistic Image for the Goal Introducing Different Features of the Goal
Session 6	Planning for the Purpose Goal-setting Methods
Session 7	Practical Steps in the Direction of the Goal
Session 8	Responsibility and Responsible Living and Conclusion

<b>Total</b>	30	100%
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According to Table 2, 26% of the testees were in the 10<sup>th</sup> grade, 33% were in the 11<sup>th</sup> grade and 41% of them were in the 12<sup>th</sup> grade.

### Description of the Research Variables

**Table 3. Description of the Research Variables**

Variable	Group	Stage	Number	Mean	Standard Deviation
Responsibility	Control	Pre-test	15	23.27	0.15
		Post-test	15	24.31	0.22
	Experimental	Pre-test	15	24.71	0.17
		Post-test	15	41.27	0.28
Procrastination	Control	Pre-test	15	210.45	0.29
		Post-test	15	217.37	0.31
	Experimental	Pre-test	15	196.58	0.26
		Post-test	15	136.07	0.19

### Data Analysis Method

Analysis of the collected data was done using the SPSS21 software through two descriptive methods including mean, standard deviation, and inferential statistics such as multivariate analysis of covariance.

### Findings

#### Demographic Description of Test-takers

**Table 2. Frequency and Percentage of Test-takers based on Academic Education**

Education	Frequency	Percentage
10 <sup>th</sup> grade	8	26%
11 <sup>th</sup> grade	10	33%
12 <sup>th</sup> grade	12	41%

As can be seen in Table 3, there was no significant difference between the values of the responsibility and procrastination variables at the pre-test stage in the two groups, i.e. experimental and control. However, the value of the responsibility variable at the post-test stage had an exponential growth in the experimental group in comparison with the control group and the procrastination variable at the post-test stage was reduced in the experimental group in comparison with the control group.

### Analytical Findings

#### Analytical Preconditions for Regression

**Table 4. The Results of Analytical Preconditions for Regression**

Kolmogorov-Smirnov Test		Value of z-Statistic		Error rate	Sig		
Responsibility		0.856		0.05	0.354		
Procrastination		1.009		0.05	0.261		
Homogeneity of Variances		Levin Value	Degree of Freedom	Error	Probability Value		
Responsibility		1.676	1 and 28	0.05	0.203		
Procrastination		0.483	1 and 28	0.05	0.492		
Regression of Slope Line		Sources of Changes	Total Squares	Degree of Freedom	Mean Squares	Fisher	Probability Value
Responsibility		Group and Pre-test	1.466	2	0.733	4.49	0.16
Procrastination		Group and Post-test	1.157	2	0.578	8.02	0.13
The linearity of the Correlation of the Variable		Total Squares	Degree of Freedom	Mean Squares	Fisher	Probability Value	
Responsibility Pre-test		0.091	1	0.091	5.67	0.022'	
Procrastination Pre-test		0.119	1	0.119	1.76	0.038	

Given the information displayed in Table 4, it can be seen that the probability value has not become significant in any of the variables (probability value is higher than the error rate of 0.05) which is an indication of the normality of the research variable. Given the fact that in the Levine test, the probability rate is higher than 0.05, it is concluded that the assumption of the equality of the variances of the two groups is confirmed. Since the probability value is higher than 0.05, it can be concluded that hypothesis zero is confirmed and the opposing hypothesis is rejected, and the presumption of regression line slope homogeneity has been observed. Besides, it can be seen that the probability rate is lower than 0.05 and the f value of the variable is significant, and it is concluded that the presumption of the linearity of the correlation of the co-variable and independent variable is observed.

### Testing the Hypothesis

Choice theory-based education affects the procrastination and responsibility of the students.

**Table 5. Analysis of Covariance of the Main Hypothesis**

Statistic	F	Value	Sig
Pillay Effect	5.21	0.321	<b>0.001</b>
Landai Willks	3.89	0.601	<b>0.001</b>
Halting effect	5.45	0.564	<b>0.001</b>

In Table 5, based on the three statistics mentioned, given the fact that the rate of Sig is lower than 0.05, therefore the effect of choice theory-based education on responsibility and procrastination is different. The results associated with the Box M statistic shows that the observed matrices of covariance for the dependent variables are same in different groups (36.21). In the above Table, since the f value is not significant at the given error level (1.49); thus, the hypothesis zero is not rejected. This means that the matrices of covariance observed between various groups were equal.

**Table 6. The Multivariate Analysis of Covariance (MANCOVA)**

Source of Changes	Total Squares	Degree of Freedom	Mean Squares	Fisher	Significance Level	Impact Intensity
Responsibility	1.017	1	1.017	63.379	0.001	0.699
Procrastination	1.331	1	1.331	19.750	0.001	0.314

As it can be seen in the Table 6, choice theory-based education affects the responsibility and procrastination of the students; and given the intensity of the impact, choice theory-based education has more of an impact on students' responsibility than their procrastination.

### Discussion and Conclusion

The present study has aimed to examine the impact of choice theory-based education on the responsibility and procrastination of female second-grade students in district 1 of Tehran. The findings suggest that choice theory-based education affects students' responsibility and procrastination. Given the degree of this impact, choice theory-based education has more of an impact on responsibility than the procrastination of the students. These findings are compatible with the findings of Ghassemi *et al.* (2017), Hatami *et al.* (2016), Shahsavari *et al.* (2014), Kazemi Mojarad *et al.* (2014), Alishapoor (2017), Risha and Brdensky (2016), and Britzman *et al.* (2012). Regarding this hypothesis, it can be said that the choice theory indicates that we as human beings choose how to behave to get what we want. According to this theory, what we do is a behavior and all behaviors are intentional and come from within. One of the reasons why the choice theory is effective is that it increases an individual's problem-solving skills. This approach teaches individuals how not to run away when times get tough, to realize that they are the ones who are responsible for their issues and problems and not others, and to have to take responsibility and try to solve problems. By using the choice theory-based education, students develop a bigger sense of responsibility towards their education, realize what responsibilities they have, and develop a mutual interest in their classes and their teachers. In this way, they realize that instead of fighting or avoiding a bad situation, they need to focus on solving the problems which leads to an increase in their level of hopefulness and happiness. In this respect, it can be stated that this approach aims to help students identify their needs and abilities and have a correct estimation of them in their minds. In this regard, the choice theory teaches students how to satisfy their personal needs and set goals based on reality. Conscious development and implementation of certain plans to reach short-term and long-term goals lead to the development of self-discipline and self-regulatory strategies and to a decrease in the students' procrastination.

### Research Limitations

- 1) Presence of Special Conditions to Execute Educational Classes Virtually for the Test-takers because of Corona
- 2) Low Levels of Virtual Education in Comparison with In-person Education and Insufficient Relationship between the Educator and Test-takers

### Recommendations

- It is recommended that future researchers conduct the same research in other cities and on a wider scale.

- It is also recommended to conduct this research again with larger groups and also on male students to estimate the validity of this method with more confidence.

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