



# RELATIONSHIP BETWEEN COGNITIVE DISTORTIONS AND DECISION-MAKING SKILLS AMONG AL-QUDS UNIVERSITY STUDENTS

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## Abstract

**Purpose of the study:** The purpose of this research is to identify the relationship between cognitive distortions and decision-making skills among Al-Quds University students.

**Methodology:** The current research was performed on a sample of (264) male and female students chosen using the random method. Both of cognitive distortions and decision-making skills measurements have been used. Validity and reliability of the study instruments were tested, and it was clear that the instruments were sufficiently reliable (stable) enough to meet the objectives of the study.

**Main Findings:** Findings showed a negative relationship between cognitive distortions and decision-making skills among Al-Quds University students, and also suggested that the means for the total score of cognitive distortions and decision-making skills were moderate. Over-thinking reflected the dominant domain of cognitive distortions. Findings also revealed differences in cognitive distortions in favor of females, Faculty of Humanities, and residents of the village.

**Applications of the study:** The strength of the negative relationship between distortions and decision-making can be deduced, as there is a need to improve students' understanding of the risks of cognitive distortions, and seek to enhance the ability of decision-making skills.

**Novelty:** Decision-making is one of the cognitive processes resulted from multiple-choice. Cognitive distortions influence decision-making skills. Thus, the purpose of this study was to overcome the barriers to negative thinking and to improve student capacity for appropriate and effective decision-making skills. We can obtain this using a direct relationship between cognitive distortions and decision-making skills.

**Keywords:** *Cognitive Distortions, Decision-making Skills, Al-Quds University Students, Palestine.*

## INTRODUCTION

Cognitive processes have a vital role to play in human thought and their comprehension of various circumstances. Cognitive distortions are some kind of psychological factors that may have a negative impact on student behaviors as they can arise in their way of thinking, comprehension, and decision-making (Li & Wang, 2013). Beck & Alford (2009) emphasized that the issue of cognitive distortions is largely due to the fact that the individual distorts facts and evidence-based on false premises and assumptions arising from faulty learning that occurred at one stage in the individual's cognitive development (Sultan, 2018).

Decision-making skills are very important, where the researchers concentrate on how to make decisions about unpredictable events and contradictory situations, in addition to the possibility to recognize the logic of individual decisions (Nagib, 2002). Decisions of this type vary from simple to complicated, depending on the nature and complexity of the situation and the number of challenges it entails, Decision-making is the most challenging task that a person may face in his or her lifetime. It reflects a process that is defined as the perceived option between two or more alternatives (Hantoul, 2013).

These university students bear the burden of making decisions that can help them succeed and cope with university life or take wrong decisions that lead to academic failure (Al-Shraideh, et al., 2010, Simic, et. al., 2017). Decision-making is a mental process that aims at selecting the best available options that are accessible to the individuals in terms of the specific situation that may be linked to work or relationships with others to achieve the desired objectives (Hammond, et al., 2015). It is also an essential part of the individual's personal and professional life so that this process should not be subjected to a factor of coincidence or separated from the reality of its implementation.

Also, risky decisions mean that "the outcome of choosing an option cannot be guaranteed. Consequently, the individual faces the risks of this outcome (Mora, et al., 2018).

And because people have limitations like information processors, biases can, and often do, reduce the amount of thinking and processing a person makes to make a choice, especially in stressful or time-limited situations. The way information is presented and the way analyzes are performed also affect the amount of cognitive resources and the collection of information a person needs in a situation. (Power, 2016) research has shown that there is a human tendency to emphasize the importance of recent experience in estimating future events (Chatfield, 2016). The individual's interpretations of events appear automatically and without a clear will of him, and these distorted automatic thoughts appear sequentially and take the form of beliefs that include dysfunction. (Al-Aajam, 2018)

Therefore, cognitive distortions are considered negative thoughts that negatively affect the individual's ability to face life events, and then his ability to adapt, which leads to excessive emotional reactions that are not compatible with the situation or event ([Al-Shukry, 2018](#)).

(Beck) emphasized that the problem of cognitive distortions lies mainly in the fact that the individual distorts reality and facts based on false premises and false assumptions that the about a wrong learning that occurred in one of the stages of the individual's cognitive development, that is, that the cognitive content of the individual in the state of disorder involves permanent distortion of events, Therefore, many mental disorders and a lack of psychological and social compatibility is largely due to cognitive distortions that affect thinking, perceptions and emotions, causing illogical thinking styles and a negative view of the self, the world and the future ([Sultan, 2018](#)).

[Al-Khuzai, Walibawi,\(2016\)](#) indicated that cognitive distortion hinders the student in his awareness and then the correct judgment and appropriate decision, so the student, in this case, carries negative prejudices about the situation, and buried negative impulses and information that is not governed by logic.

Many studies such as ([Ersoy, et al., 2019](#)) and ([Fan, 2016](#)) indicate the importance of teaching learners the skill of decision-making, and the process of improving decision-making among learners has a positive impact on improving their academic achievement and developing their higher thinking skills. ([Phillips-Wren, et al, 2019](#)) also indicated that reducing cognitive biases, supporting learning styles, and managing risky situations increases the process of improving decision-making.

## LITERATURE REVIEW

Previous related studies, such as ([Ciccarelli, et al., 2017](#)) and ([Aithal, & Kumar, 2017](#)), suggested that there was a negative correlation between cognitive distortions and decision-making skills. Danner and his colleagues ([Danner, et al., 2011](#)) reported a relationship between intelligence and decision-making skills. Also, [Sadouq&Daif \(2018\)](#) have shown that different thinking approaches have an impact on the decision-making process. The sample consisted of 186 male and female students, the results showed that the various styles of thinking influence the decision-making process.

The findings of a study conducted by [Zaghair and Mohamad \(2019\)](#), the study was conducted on a sample consisted of 400 male and female students from Alyarmouk University showed differences in decision-making skills in favor of females due to gender variable, as well as differences attributed to major variable in favor of the scientific one. [Saleh and Jihad \(2019\)](#) showed a high level of cognitive distortions among adolescents, their study performed on a sample of 450 students; it also revealed differences in favor of males, [Tammouni \(2019\)](#) conducted a study to investigate the efficiency of a cognitive indicative program in reducing cognitive distortions among Al-Quds Open University students, the sample of his study consisted of 40 students divided into two groups, control and experimental. The findings showed statistically significant differences between the control and experimental groups in the post-assessment on at the measurement of cognitive distortions in favor of the experimental group, [Shandoukh and Mizal \(2019\)](#) found in their study which was conducted on 140 middle school students that cognitive distortions rates were below average. In addition, in their study, [Abbarah, et al. \(2018\)](#) found that cognitive distortions rates were generally high and that there were no differences due to gender, but they revealed differences due to major in favor of literary stream students, the sample of their study included 389 male and female students in the governmental high schools.

[Mulhem\(2014\)](#) in his study "Cognitive Intelligence and its Relationship to Decision-making among Damascus University Students," has demonstrated that there were no differences in the measurement of decision-making skills due to the academic major or place of residence, he conducted his study on a sample consisted of 340 male and female students from different faculties in the university. Also, [Al-Subai \(2011\)](#), in his study "Thinking Styles and its Relationship to Decision-making", reported that there were no statistically significant differences in thinking approach and decision-making skills due to the major or academic level, the study was performed on 109 employees in the governmental schools. [Al-Mansour\(2015\)](#) study, titled "Intelligence and its Relationship to Decision-making Skills among Damascus University Students," indicated that there were differences in the measurement of decision-making skills due to the major variable in favor of scientific majors, although no differences were found due to the gender variable, but the study revealed differences due to the age in favor of older individuals. A study by [Bullock et al. \(2014\)](#) aimed to identify the differences between decision-maker and decision-reluctant, it was conducted on 223 male and female university students, 83 of them were reluctant and 143 were decision-makers. The study suggested that it is possible to predict low self-efficiency, high negative thinking, and increased obstacles in the decision-making process among those who hesitate to make decisions compared to their peers who can make decisions, [Al-Khuzai \(2009\)](#) conducted a study titled "The Impact of Using Thinking Maps on Increasing Achievement and Developing Decision-making among Students of the Faculty of Education," he performed his study on 70 students who were divided into two groups, control and experimental, the findings showed statistically significant differences in decision-making skills amongst university students due to gender in favor of males.

**Following the previous research**, the goals of the studies were to tackle different variables, including the research on cognitive distortions and decision-making skills with various variables, such as decision-making, thought styles, self-awareness, inductive thinking style, personality disorders, decision-makers, and hesitant ones, and thinking maps. Most

of the studies used samples ranged from (30- 450), the majority of which were from university students; the results of these studies were consistent in some respects but inconsistent in others.

## RATIONALE OF THE STUDY

About the lack of research on the relationship between cognitive distortions and decision-making skills among university students, the current study aimed at investigating this relationship in terms of these variables. While cognitive distortions play a prominent role in cognitive theory, there is a lack of research that examined the relationship between cognitive distortions and decision-making skills. Cognitive distortions impair the individual's ability to cope with life events and hence his ability to make acceptable decisions. Thus, the importance of this study stems from the importance of overcoming the obstacles that impede the decision-making process, as well as the importance of implementing scientific methods and approaches that ensure making rational and purposeful decisions that result in increased productivity and development, solutions to problems, and the development of their higher thinking skills.

### Objective

To identify the relationship between cognitive distortions and decision-making skills among Al-Quds University students.

### Hypothesis

There will be a close relationship between these variables: cognitive distortions and decision-making.

## METHODOLOGY

### Study approach

The researcher used the relational descriptive approach to achieve the objectives of the current study. This approach is defined as an approach that investigates an established phenomenon, event, or problem from which information can be obtained to answer research questions or hypotheses.

### Study population and sample

The population of this study consisted of all regular first-term students at Al-Quds University, who aged from 18 to 22 years and do not have any mental or healthy problems, in the academic year 2019. They were (5000) male and female students according to the Department of Registration and Admission. The study sample included 264 male and female students with a ratio of 5% who were selected using the random method. Table (1) shows the demographic distribution of the participants by the variables of the study.

**Table 1:** Demographic distribution of the participants by the variables of the study

Variable	Level	n	Percentage (%)
Gender	Male	126	47.7
	Female	138	52.3
Faculty	Science	153	58.0
	Humanities	111	42.0
Academic level	1 <sup>st</sup> year	47	17.8
	2 <sup>nd</sup> year	63	23.9
	3 <sup>rd</sup> year	62	23.5
	4 <sup>th</sup> year and above	92	34.8
Place of residence	Village	117	44.3
	City	130	49.2
	Camp	17	6.4

### Instrumentation

Based on the review of the educational literature, previous research, and the instruments used in the current study, the measurement of cognitive distortions developed by [Salha \(2018\)](#) was used because it was appropriate for the purpose of the study, this measurement was also used in [Aladily, & Alquraishi \(2016\)](#). The measurement consisted of 38 statements (Appendix A) divided into six fields represent cognitive distortions. The current study also used the decision-making measurement developed by [Ghareeb&Ayash \(2018\)](#) and used in [Al-Mansour \(2015\)](#), it consisted of 23 statements. The participants' responses were formulated as five-point Likert scale statements, where the participants' responses to the statements and the correction method were as follows: very extremely (5 scores), extremely (4 scores), moderately (3 scores), slightly (2 scores), very slightly (1 score).

**Table 2:** Fields of cognitive distortions measurement

No.	Fields of cognitive distortions measurement	Number of items
1	All-or-Nothing thinking (binary thinking): it is a huge extremist of judgment, as some people express it with (white or black).	5
2	Excessive generalization (over-generalization): in this cognitive distortion, we may come across a general conclusion based on an event or evidence. If something happens for only one time, we may predict that it will happen again.	6
3	Assessment errors: this means that an individual exaggerates the value of his problems and faults or decreases and humiliates his traits.	7
4	Optimal thinking (over-thinking): the individual obligates himself to be highly qualified and competitive, and to accomplish as much important and valuable things as possible without making any mistakes.	6
5	Incorrect inference (arbitrary): a logical error bases on unlimited evidence from previous experiences, it allows the individual to make a final decision about the future.	7
6	Self-blame: the person feels like he triggers the adverse events that occur around him, but he is not really responsible for that.	7
Total		38

The statistical criterion was set out, using the following equation:

$$\text{Category length} = \text{upper limit} - \text{lower limit (of the scale)} = 1 - 5 = 4 = 1.33$$

Number of presumed categories 33

The following scores were adopted to determine the levels of the means of the participants' responses; the three levels were as follows:

- $1 + 1.33 = 2.33$ , thus, the statements with a mean range between  $(1 \geq m \leq 2.33)$  indicate a low level.
- $2.34 + 1.33 = 3.67$ , thus, the statements with a mean range between  $(2.34 \geq m \leq 3.67)$  indicate a moderate level.
- $3.38 + 1.33 = 5$ , thus, the statements with a mean range between  $(3.68 \geq m \leq 5)$  indicate a high level.

#### Instrument validity

The instrument validity scores were derived as it was tested by a group of specialists in the fields of psychology, measurement, and assessment. The Person Correlation coefficient was also measured as it was extremely suitable for the current study.

#### Instrument reliability

The reliability of the instrument was checked by measuring the total score of the reliability coefficient for the fields of the study according to the "Cronbach's Alpha" equation, the total score for cognitive distortions among the students of Al-Quds University was (0.92) while the total score for decision-making was (0.75), which indicated that the study instrument was sufficiently reliable (stable) to meet the study purposes.

#### Statistical treatment

After collecting data and testing its validity, it was coded (given certain digits) as a prelude to insert it into the computer for proper statistical treatment and to analyze data according to the study's questions. Statistical treatment of the data was carried out by the extraction of the means and standard deviations for each statement in the questionnaire, as well as the results of the t-test, One-Way ANOVA test, Person Correlation coefficient, and reliability equation (Cronbach Alpha) were measured using (23-SPSS) program.

#### Results

The findings of this study showed a negative relationship between cognitive distortions and decision-making skills among Al-Quds University students and also suggested that the mean of the total score for cognitive distortions and decision-making skills was moderate.

**Table3:** Pearson Correlation Coefficient between cognitive distortions and decision-making skills

Cognitive Distortions/decision-making skills	Pearson Correlation	1	-.343**
	Sig. (2-tailed)		.000
	N	264	264

\*\* Correlation is significant at the 0.01 level (2-tailed)

Table (3) shows that the value of Pearson Correlation Coefficient between cognitive distortions and decision-making skills as ( $R = -0.343^{**}$ ) at significance level ( $P = -0.00$ ), that is, there was a statistically significant negative relationship, in other words, the higher the level of cognitive distortions, the lower the level of decision-making, and vice versa.

**Table 4:** Results of the statistical analysis of means and standard deviations of the participants' responses to cognitive distortions and decision-making skills measurements among students at Al-Quds University

Field	N	Mean	SD
All-or-Nothing thinking (binary thinking)	264	3.53	.60
Excessive generalization(over-generalization)	264	3.35	.65
Assessment errors	264	3.44	.58
Optimal thinking (over-thinking)	264	3.79	.57
Incorrect inference (arbitrary)	264	3.43	.62
Self-blame	264	3.52	.66
The total score for cognitive distortions	264	3.48	.53
The total score for decision-making	264	3.49	.41

Table (4) shows that the mean and the standard deviation of the total score of the cognitive distortions were moderate ( $SD = 0.53$ ;  $M = 3.48$ ). The highest mean was by the field of optimal thinking (over-thinking), and the lowest one was for excessive generalization (over-generalization). The mean and standard deviation of the total score of decision-making skills were ( $SD = 0.41$ ;  $M = 3.49$ ). Thus, they were moderate.

**Table 5:** Results of the statistical analysis of the(t-test) for the participants' responses to the cognitive distortions among Al-Quds University students based on gender and faculty variables

Field	Variable	N	Mean	SD	t-value	P-value
Cognitive distortions/ gender	Male	126	3.37	.52	-3.28	.00
	Female	138	3.58	.52		
Cognitive distortions/ faculty	Science	153	3.42	.57	-2.17	.03
	Humanities	111	3.56	.47		
Decision-making skills/ gender	Male	126	3.68	.42	7.58	.00
	Female	138	3.33	.32		
Decision-making skills/faculty	Science	153	3.54	.46	2.03	.04
	Humanities	111	3.44	.31		

Table (5) shows the results of (t-test) and the means of cognitive distortions due to the gender variable. The results revealed statistically significant differences among females as the highest mean and standard deviation were ( $SD = 0.52$ ;  $M = 3.58$ ) compared to males ( $SD = 0.52$ ;  $M = 3.37$ ), the values of (t) and (p) were ( $t = -3.28$ ;  $p = 0.00$ ) which means that the differences were in favor of females. The results also showed statistically significant differences in the cognitive distortions due to the faculty variable, where the standard deviation and the highest mean of Faculty of Humanities were ( $SD = 0.47$ ;  $M = 3.56$ ) compared to the Faculty of Science ( $SD = 0.57$ ;  $M = 3.42$ ). The values of (t) and (p) were ( $t = -2.17$ ;  $p = 0.03$ ), and the differences were in favor of the Faculty of Humanities.

The results of (t-test) and the means of decision-making skills also show that there were statistical differences among males due to the gender variable as the highest mean and standard deviation were ( $SD = 0.42$ ;  $M = 3.68$ ) compared to females ( $SD = 0.32$ ;  $M = 3.33$ ). The values of (T) and (P) were ( $t = 7.58$ ;  $p = 0.00$ ). Thus, the differences were in favor of males. The results of the (t-test) for decision-making skills revealed statically significant differences because the highest mean and standard deviation for the Faculty of Science were ( $SD = 0.46$ ;  $M = 3.54$ ) compared to the Faculty of Humanities ( $SD = 0.31$ ;  $M = 3.44$ ). The values of (T) and (p) were ( $T = 2.03$ ;  $P = 0.04$ ), that is, the differences were in favor of the Faculty of Humanities.

**Table 6:** Results of the statistical analysis of (One Way Anova) for the participants' responses to cognitive distortions among Al-Quds University students due to gender and faculty variables.

Field	Level	N	Mean	SD	F-value	P-value
Cognitive distortions/ academic level	1 <sup>st</sup> year	47	3.69	.52	6.41	.000
	2 <sup>nd</sup> year	63	3.60	.44		
	3 <sup>rd</sup> year	62	3.40	.54		
	4 <sup>th</sup> year and above	92	3.34	.55		
Cognitive distortions/ place of residence	Village	117	3.60	.50	5.68	.004
	City	130	3.40	.56		
	Camp	17	3.28	.35		

Table (6) shows the results of the One Way Anova test for the cognitive distortions due to the academic level. The highest mean and standard deviation were (SD = 0.52, M = 369) in favor of first-year students compared to the higher years, the value of (F) is (F = 6.41; 0.00), that is, there were differences due to the academic level variable in favor of the first year. There were also differences attributable to the pace of residence in favor of villagers where (SD = 0.50; M = 3.60), the values of (F) and (P) were (F = 5.68; P = 0.00).

**Table 7:** Results of the statistical analysis of (One Way Anova) for the participants' responses to decision-making skills among Al-Quds University students due to gender and faculty variables.

Field	Level	N	Mean	SD	F value	P value
Decision-making/academic level	1 <sup>st</sup> year	47	47	3.37	.27	.000
	2 <sup>nd</sup> year	63	63	3.29	.35	
	3 <sup>rd</sup> year	62	62	3.57	.39	
	4 <sup>th</sup> year and above	92	92	3.65	.44	
Decision-making/place of residence	Village	117	117	3.30	.33	
	City	130	130	3.67	.42	.000
	Camp	17	17	3.65	.18	

Table 7 shows that the results of One Way Anovatestfor decision-making skills based on the academic level revealed differences in favor of fourth-year students and above (SD = 0.44; M = 3.65) compared to the lower years as the values of (F) and (P) were (F = 12.67; P = 0.00). There were also differences due to the place of residence in favor of the city residents, the mean and the standard deviation were (SD = 0.42; M = 3.67) and (F = 29.73; P = 0.00).

## DISCUSSION

The results obtained through this study demonstrated a statistically significant negative relationship between cognitive distortions and decision-making skills. The higher the cognitive distortions, the lower would be the level of decision-making skills, and vice versa. This finding is consistent with the following studies: (Ciccarelli, et al., 2017; Aithal, & Kumar, 2017; Al-Mansour, 2015, & Danner, et al., 2011). The findings from this study also showed that the mean of the total score for cognitive distortions was moderate, this result is inconsistent with the research of Saleh and Jiad (2019) and Abbarah, et al. (2018), suggesting an increase in cognitive distortions of the samples used in this study. The findings from Tammouni (2019) and Shandoukh and Mizal (2019) showed a low rate of cognitive distortions. The highest mean was for the field of optimal thinking (over-thinking) followed by the field of all-or-nothing thinking (binary thinking), while the lowest one was for the field of excessive generalization (over-generalization). Thus, the mean for the total score of decision-making skills was moderate.

The results also showed statistically significant differences due to the study variables, as they also revealed differences in cognitive distortions among students of Al-Quds University for the gender variable in favor of females, and this result is inconsistent with Saleh, and Jiyad (2019) as well as Abbarah et al (2018). We can explain this result by the nature of stressful environmental conditions as well as the extent of the socialization that females receive compared to males, the results also revealed differences attributed to the Faculty of Humanities compared to the Faculty of Science, and this is consistent with the study of Abbarah et al.(2018). These differences were the result of different educational approaches used to teach literary and scientific subjects, where logic is used in teaching scientific subjects more than in literary approaches. Teaching methods influence student thinking, just as the students of the scientific stream follow the scientific methods more than the students of the literary stream do. The findings revealed differences in the academic level in favor of first-year students compared to the students in higher years. The academic level of first-year students was low compared to the academic level of the students in higher years; this can be modified during the academic years. When the students advance at their academic level, they have fewer opportunities to expose themselves to cognitive distortions. There have also been differences between the residents of the village and the residents of the city, resulting

from socialization, where some parents have some myths and irrational thoughts in mind. As a result, children have the same thoughts and values.

The findings of the current study showed differences in decision-making skills amongst of Al-Quds University students due to gender in favor of males. This finding is consistent with [Al-Khuzai \(2009\)](#) and is inconsistent neither with [Zaghair, and Mohamad \(2019\)](#) or [Al-Mansour \(2015\)](#). This result is thought to have a rational outcome because students at higher academic levels have the capacities and abilities to make decisions compared to their peers at fewer levels. The study found differences due to the place of residence in favor of the residents of the city. This finding is inconsistent with [Mulhem \(2014\)](#). Socialization has an impact on the nature of life in the city because life events in the city are more active than those in the village. This requires training children on decision-making in early childhood. The autonomy of the residents of the city is greater than that of the village residents, where the dependence of the children in the village is greater than that of those who are in the city.

## CONCLUSIONS

Based on the findings of the current study, it is clear that students at Al-Quds University have a moderate degree of cognitive distortions, and the highest level of cognitive distortion field is optimal thinking (over-thinking), whereas the lowest mean is for the field of excessive generalization (over-generalization). The findings also showed that there is a negative relationship between cognitive distortions and decision-making among Al-Quds University students because all the variables were reversed. It was found that the high mean of distortions was low in decision-making, and vice versa. As a result, the variables (females, human college, first-year students, and residents of the village) were high in cognitive distortions, while the variables were low in decision-making which means there were differences between students, in addition to differences between all study variables.

## RECOMMENDATION

Based on the findings of the study, the following is recommended:

- Dedicating most of the teachers' attention to logical thinking programs in teaching students.
- Raising awareness among students of the dangers of cognitive distortions.
- Using cognitive distortions as an important predictor to test decision-making skills.

## LIMITATION AND STUDY FORWARD

This study focused mainly on cognitive distortions and decision-making skills among Al-Quds University students. It is suggested that future researchers stretch out this research to other universities across Palestine, or conduct a comparative analysis between several universities.

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## AUTHORS CONTRIBUTION

The first author contributed to the process of studying the entire data, literature review, categorizing data, validity checks, and data interpretation, and checking of the data analysis process. The second author contributed to the preparation of research plans, research problems, data collection, and evaluating the data analysis process, and interpretation of results.

## CONFLICT OF INTERESTS

The authors declare that they have no conflicting interests.

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### Appendix A

Dear students

Greetings,

The researcher is conducting a scientific study titled “Relationship between Cognitive Distortions and Decision-Making Skills among Al-Quds University students”. Kindly fill out the questionnaire honestly and objectively, realizing that the information will be kept confidential and will only be used for scientific research purposes.

Please Accept my Best Regards.

#### Part 1: General information

Please (√) in the brackets next to the answer applies to you.

Gender:() Male() Female

Faculty:() Scientific() Humanities

Academic level:() First year() Second year() Third year() Fourth year and above

Place of residence:() City() Village() Camp

#### Measurement of Cognitive Distortions

1	I refuse half measures (It is all or nothing)	very extremely	extremely	moderately	Slightly	very slightly
2	In the case where I meet someone who does not like to dealing with me, I feel like not everyone likes me.					
3	I seek for achieving goals and levels that seem difficult to achieve for others.					
4	I keep myself more accountable than others do to themselves.					
5	I consider myself to be responsible for my grief.					
6	I feel like I am always right.					
7	When I make a mistake, I do not consider it a failure as others see it.					
8	I see things black or white, I never see them gray.					
9	I conclude things quickly without looking through the details.					
10	I always seek for excellence and perfection in all that I do.					
11	In any situation I encounter, I feel like I am always right.					
12	When I make the least mistakes, I cruelly hold myself accountable.					
13	I am trying to achieve my goals extremely precisely.					



14	I have a lot of doubts about all the people who surround me.					
15	I hold myself accountable for everything that happens to me and which is beyond my control.					
16	I obligate myself to do a lot of things and I expect more.					
17	I think anyone who does not support me, he is totally against me.					
18	I feel my mistakes are silly and do not deserve any attention.					
19	Without caring about alternative options, I move to conclusions.					
20	I blame myself for any wrong action, even if it is accepted is by others.					
21	I think I am an outstanding person, and nothing is going to be bad for me.					
22	I blame myself for situations that others see do not deserve to be blamed.					
23	If my job is not perfect, it does not deserve to be done at all.					
24	I feel completely upset once I make a mistake even if it is very silly.					
25	I believe that the value of what I do is related to the extent of its lack of imperfection.					
26	I minimize the value of my achievements compared to others.					
27	Whenever I make a mistake, even a silly one, I judge all my actions wrong.					
28	I blame myself for mistakes I have made before, no matter how small.					
29	When I feel worried and sad, I feel like everyone is worried about me.					
30	I plan for myself with goals and criteria that are much higher than those the others plan for themselves.					
31	When it comes to a difficult situation happens, I see that all situations coming up are more difficult.					
32	When someone lies to me once, I will not trust him at all.					
33	I feel less satisfied with myself When I notice a flaw in my character,.					
34	When I come across any challenges, I feel like I will never succeed.					
35	I can sense things before they happen.					
36	My feelings change quickly between satisfaction and frustration or failure.					



37	I am really upset since I think a lot about my future.					
38	It makes me mad to do less than my expectations.					

The distribution of items based on Cognitive Distortions Measurement fields.

No.	Fields	Number of Items	Distribution of Items
1	All-or-Nothing thinking (binary thinking)	5	1-8-17-23-36
2	Excessive generalization (over generalization)	6	2-27-29-31-32-37
3	Assessment errors	7	7-18-24-26-33-34-38
4	Optimal thinking (over thinking)	6	3-10-13-16-25-30
5	Incorrect inference (arbitrary).	7	6-9-11-14-19-21-35.
6	Self-blame.	7	4-5-12-15-20-22-28.

Measurement of Decision-Making Skills

No.	Items	very extremely	extremely	moderately	Slightly	very slightly
1	I can choose the best time for decision-making.					
2	When I make my decisions, I base on my knowledge of facts.					
3	I make definite and clear decisions.					
4	I understand the of time importance in decision-making process.					
5	I gather the facts I need before I make a decision.					
6	I verify the consequences of the decision.					
7	I value the responsibility of decision-making.					
8	I am responsible for failure when I make a wrong decision.					
9	I refer to rules for informing the decision-making process.					
10	I set out the benefits of the decision.					



11	I follow up the decision.					
12	I am one of those who are constantly involved in debates to make a decision.					
13	When making a decision, I evaluate the situations on the basis of previous experiences.					
14	When making a decision, I base on personal communication.					
15	When I make a decision, I don't get swayed by situations.					
16	I always try to delay my decision-making.					
17	I allow the previous opinions to influence my decisions.					
18	I hesitate when I make a decision.					
19	My mood affects the sequences of my decisions.					
20	I get backward in my decision after I make it.					
21	When I make a decision, I doubt whether it is right or wrong.					
22	I allow the others to help make my decisions.					
23	Before I make a decision, I define the problem carefully.					

very extremely (5 scores), extremely (4 scores), moderately (3 scores), slightly (2 scores), very slightly (1 score).