

# INFLUENCE OF COGNITIVE DISSONANCE AND SELF COMPASSION ON ACADEMIC PROCRASTINATION AMONG HIGHER SECONDARY SCHOOL STUDENTS OF KERALA

**SHIMIMOL P S**

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*in partial fulfillment of the requirements for the degree of*

**Doctor of Philosophy  
in  
Education**



**FAROOK TRAINING COLLEGE  
RESEARCH CENTRE IN EDUCATION  
UNIVERSITY OF CALICUT**

**2017**

## **DECLARATION**

**I, Shimimol P. S., do hereby declare that this report *Influence of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students of Kerala* has not been submitted by me for the award of a Degree, Diploma or Recognition before.**

**Farrok College**

**SHIMIMOL P S**

**Dr. HASSAN KOYA M. P**  
**Assistant Professor**  
**Farook Training College**  
**Research centre in Education**

## **CERTIFICATE**

**I, Dr. Hassan Koya M P**, do hereby certify that this report **Influence of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students of Kerala** submitted for the degree of Doctor of Philosophy in Education of the Farook Training College, is a record of bonafide study and research carried out by **Ms. Shimimol P. S**, under my supervision and guidance.

The thesis is revised as per modification and recommendation reported by the adjudicators and re-submitted.

Farook Training College

**Dr. HASSAN KOYA M. P**  
(Supervising Teacher)

**Dr. HASSAN KOYA M. P**  
**Assistant Professor**  
**Farook Training College**  
**Research centre in Education**

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Farook Training College

**Dr. HASSAN KOYA M. P**  
(Supervising Teacher)

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## CHAPTER-I

# INTRODUCTION

- *Introduction*
- *Need and Significance*
- *Statement of the Problem*
- *Definition of key terms*
- *Objectives*
- *Hypotheses*
- *Variables*
- *Methodology*
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One of the strongest contributing factor to development of a nation is citizen's access to quality education. The maximum development of human resources is possible only through education. The twenty first century education promises optimal benefits of education for all as against the traditional purpose of preparing students to meet the societal needs. Hence, many attempts are going on in the field of education to develop the full potential of students. Education is a pillar of modern society and as such it is the backbone to creating active participant in a nation's development. It is not the amount of information that is put into one's brain, but it is the character making, life making and man making process. Education promotes and enhances the outlook and behavior of an individual in a civilized society.

Learning outcome is a strong indicator of quality of education that a student receive. Many factors like motivation, study skills, interest, environment etc., result in better learning outcome. Whereas some other factors like procrastination, anxiety, stress etc., adversely affects learning outcome. According to Ferrari, Johnson and McCown (1995), Academic Procrastination behavior is the behavior of avoiding academic duties which cause students have academic failure. Procrastination is the disease eating away at student productivity. Students are committed with various activities in their academic life. Due to some additional responsibilities they tend to forget or fail to complete their tasks. In today's educational settings, students in universities are compelled to engage with various curricular and co- curricular

activities in a short duration. For instance writing assignment, preparation for seminar presentation, attending the internal as well external examination for different subjects and so on. In these circumstances, procrastination appears and students tend to postpone their academic work. At the same time some students deliberately postpone their work due to their involvement in extra curricular activities, lack of interest and laziness. Generally, it is witnessed that Academic Procrastination affects students learning outcomes.

The behavior of Academic Procrastination is quite common among students. Students cannot show their real performances in learning processes and they fail because of procrastination behaviors. So many reasons can be identified a student become procrastinator. Solomon and Rothblum (1984) identified evaluation anxiety, perfectionism, difficulty making decisions, dependency and help seeking, task aversiveness, lack of self confidence, laziness, lack of assertion, fear of success, feeling overwhelmed and poor time management, rebellion against control, risk taking and peer influence are the major reasons of procrastination. These factors are intense during adolescence period.

Human beings are not rational beings, but, rather, rationalizing beings and strive to maintain ideal self-image. When contradict the concept of real self and ideal selves, create a kind of mental tension called Cognitive Dissonance. When one experience Cognitive Dissonance, feel uncomfortable and upset. Cognitive Dissonance is a stressful psychological process in which the brain is conflicted about one's actions because whatever he does go against his beliefs. In order to decrease these bad feelings, explain actions that go against idea of ideal selves, giving reason



and excuse to why he did the things that he did. A common bad behavior we rationalize for ourselves is procrastination, or the action of delaying or putting off doing something. Procrastination is a bad behavior regarding work ethic that is often rationalized by people to relieve Cognitive Dissonance; it is problematic to justify our bad behaviors because regardless of giving reason, the behavior isn't any less reprehensible. But we can reduce every bad behaviors through Self Compassionate attitude to a great extent.

Self Compassion is defined as a healthy sense of self-acceptance, indicates the acceptance and adoption of unpleasant aspects of life and includes caring and compassionating of self in the face of perceived difficulties and failures. Self Compassion means emotional acceptance of what happens in a moment in human. According to Neff (2003) Self Compassion involves interaction among the following three components that can be useful for: Self-kindness vs self-judgment (which tend to have a vision for their care compared to judgments about their traumatic judgment), common humanity versus isolation (feeling that some times, all men may fail and because of this failure should not be discontinued relationships with others), mindfulness versus over identification (being aware of the current experiences ,in a way that it would not be under the extreme influence of certain emotions). Research show that ,Self Compassion is associated with procrastination. Effort has been made to identify the role of Self Compassion on Academic Procrastination and indicates that Procrastination is largely associates with lower level of Self Compassion (Williams, Stark & Foster, 2008).

Leary and colleagues (2007) found that individuals who were higher in Self Compassion demonstrated less extreme reactions, less negative emotions, more accepting thoughts, and a greater tendency to put their problems into perspective. Self Compassionate people are less likely to ruminate about or else suppress their negative thoughts and emotions (Neff, 2003a; Neff, Kirkpatrick, & Rude, 2007). Moreover, Self Compassion is directly associated with psychological strengths such as happiness, optimism, wisdom, personal initiative, and emotional intelligence (Heffernan, Griffin, McNulty, & Fitzpatrick, 2010; Hollis-Walker & Colosimo, 2011; Neff, Rude, et al., 2007). It is also linked to increased motivation, health behaviors, positive body image, and resilient coping (Albertson, Neff, & Dill-Shackleford, 2014; Allen, Goldwasser & Leary, 2012; Breines & Chen, 2012; Sbarra, Smith, & Mehl, 2012). To date, however, research and interventions have not taken potential gender differences into account in terms of understanding Self Compassion, a major deficit in our understanding. There is reason to hypothesize gender differences in Self Compassion, though it is unclear in which direction.

In short Cognitive Dissonance and Self Compassion have significant role in the procrastination behavior. Research findings indicate that Cognitive Dissonance increases Academic Procrastination whereas Self Compassion decreases Academic Procrastination, Williams, Stark and Foster (2008); Milgram et al (1995). So the Cognitive Dissonance must be reduced and at the same time Self Compassion must be improved among students to reduce the habit of Academic Procrastination.

### **Need and Significance of the Study**

In search of better understanding of the Academic Procrastination, the relationships of the different variables were investigated. As a consequence new concepts and issues are coming into focus. The role of Cognitive Dissonance is found significant among adolescent, Shah and Janjua (2012). Higher Secondary School students are attracted by different values or attitudes which are contradicting in nature. They are driven by different forces and create cognitive inconsistency.

Of the number of variables identified, the centre of attention remain the behavioral problem of adolescent is Academic Procrastination. During the phase of development, adolescents begin to transition from childhood to adulthood. Issues of independence, identity, sexuality, and relationships define this developmental stage. Emotional problems, mood disorders, anxiety disorders, and thought disorders as well as psychosocial disorders, may develop or first become apparent during adolescence. Suicide is a major cause of death for this age group. Other causes of death include accidents, unintentional injuries, and homicide.

Adolescence is a time for developing independence. So they exercise their independence by questioning and sometimes breaking the rules. Parents and doctors must distinguish occasional errors of judgment from a degree of misbehavior that requires professional intervention. The severity and frequency of infractions are guides. For example, regular drinking, frequent episodes of fighting, truancy, and theft are much more significant than isolated episodes of the same activities. Other major issues include deterioration of performance at school and running away from

home. Of particular concern are adolescents who cause serious injury or use a weapon in a fight.

Because in the age of adolescents they wish much more independent but they are often out of the direct physical control of adults. In these circumstances, adolescents' behavior is determined by their own moral and behavioral code. Parents guide rather than directly control the adolescents' actions. Adolescents who feel warmth and support from their parents are less likely to engage in risky behaviors. Adolescence is a time of physical, cognitive, social, and emotional growth and change. Being adolescents, higher secondary students are facing so many emotional, sociological and psychological problems. Inconsistency in parental attitudes, conflict between parental norms of behavior and peer norms etc. heightens the emotions of adolescents. It is a type of anti motivation where individuals decide not to move towards carrying out and finishing a chosen academic task. When they fail to achieve success they commit suicide, leave home and give up education. The present scenario of adolescents clearly shows that the condition of our youth is significantly deteriorating.

Adolescents are experience hallucinations. Since they may have contradictory views of their internal experience, their experience of auditory hallucinations, and the reality of their experience as stated by their treatment providers. It leads to psychosis. So the main causes of psychosis is Cognitive Dissonance. Most of the people addicted to the blue whale game are adolescents .The creator of the game traps into the emotional vulnerability and it leads to high Cognitive Dissonance. The two different cognition create unpleasant situation in the

cognitive field of individual. This intensity of this inconsistency is manifested through suicide. Feeling detached from the parents, teachers and friends they find pleasure in completing the game. They think completing the game is the ultimate goal of life. The theory behind the game is those who are addicted to the game are biological waste and they should be eliminated from the earth. But at the end they are asked to commit suicide. All these incidents are the indication of challenges that adolescents are facing.

The influence of these problem can be seen in their academic matters also. One of the major problem in academic setting is Academic Procrastination. Academic Procrastination is a voluntary delay of the completion of an academic task within the expected or desired time frame despite expecting to be worse off for the delay. It involves knowing that one needs to carry out an academic activity or undertake an academic task, such as studying for examinations, writing a term paper, finishing a school related projects, or undertaking the weekly reading assignments, but for one reason or another, failing to motivate oneself to do so within the expected time frame. This can be create an emotional discomfort. So Procrastination is simply the behavioral output of many psychological variables like Cognitive Dissonance and Self Compassion.

Cognitive Dissonance is the confusing mental condition when one's belief is contradicting with behavior. It may be the contradiction between actions or belief/attitude or between two actions or between two belief/attitude. In adolescents the Cognitive Dissonance is found in learning related matters. For eg. The students know they need to work hard to achieve success but at the same time they tend to be

lazy. Here their knowledge is contradicting with actions. This habit is quite common among learners. But at the same time adolescents are conscious about them selves. They are kind and Self Compassionate. Self Compassion is defined as a healthy sense of self-acceptance, Indicates the acceptance and adoption of unpleasant aspects of life and self and Include caring and compassionating of self in the face of Perceived difficulties and failures. Self Compassion means emotional acceptance of what happens in a moment in human. When talking about compassionate of people toward each other ,this subject is considered evident. But about Self Compassion concept,it is different. At first glance ,Self Compassion and compassion for others seems a little more complicated.in fact,it is no difference between Self Compassion and compassion for others(*Germer,2009*).

Self Compassion's driving force is love not fear. And so, because you love and value yourself, you're more likely to make choices that lead to well-being in the long term. Self Compassion allows us to see our weaknesses in a save and nurturing way, thus paving the way for improvement. So we can work on getting better, not out of fear but out of a desire to be happy, healthy and thriving. Self Compassionate people are more oriented toward personal growth, more intrinsic motivation and more likely to formulate specific plans for reaching their goals. Self Compassionate peoples they do things because they want to learn and grow, not to validate themselves or impress others. Self Compassionate people are more oriented toward growth and more likely to get real about their goals by creating specific plans to achieve them. Their attitude helps them to save their self-efficacy beliefs, allowing them to quickly set sails on new ventures after failure. They also have more intrinsic

motivation and pursue learning rather than performance goals, meaning they're driven by the healthy desire to learn and grow, rather than an unhealthy desire to escape self-punishment or get external validation. Because they are not terribly afraid of failure, they engage in less self-handicapping behavior like procrastination.

Studies suggest that Self Compassion influences Academic Procrastination. Hajiazizi, Amirhossein and Robert (2015), conducted a study *The Relationship between Self Compassion and Academic Procrastination Being Mediated by Shame and Anxiety*, Results from the path analysis indicated that the participants' reported level of Self Compassion was negatively associated with their level of Academic Procrastination; that is, the higher their level of Self Compassion, the lower their reported level of Academic Procrastination. Self Compassion is being compassionate towards oneself a student who is Self Compassionate find pleasure in achieving success. So that he never procrastinate and try to reduce dissonance .

Milgram et al (1992) conducted a study to what degree are Cognitive Dissonance and procrastination related. The result revealed that there exist positive correlation between these two variables. But the investigator could not locate studies examining the cross – over effect of Cognitive Dissonance and Self Compassion on Academic Procrastination. Moreover, research in this area indicates that the concept of Cognitive Dissonance and Self Compassion are interwoven and calls for further clarification.

This tempted the investigator to take up a study on the topic influence of Cognitive Dissonance and Self Compassion on Academic Procrastination among Higher secondary school students of Kerala.

### **Statement of the Problem**

The present study entitled as “INFLUENCE OF COGNITIVE DISSONANCE AND SELF COMPASSION ON ACADEMIC PROCRASTINATION AMONG HIGHER SECONDARY SCHOOL STUDENTS OF KERALA”.

### **Definition of Key Terms Used**

The key terms used in the study are defined below for their meaning in the study.

#### **Cognitive Dissonance**

Cognitive Dissonance is a condition that happens when an individual hold two “inconsistent cognitions”. Cognition means “any knowledge, opinion, attitude or belief about the environment, about oneself or about one's behavior”

(Festinger, 1957)

In the present study the same definition is taken into consideration related with academic activities and it is measured through Cognitive Dissonance scale.

#### **Self Compassion**

It describes a compassionate attitude towards oneself characterized by acceptance of one's perceived shortcomings, inadequacies, failures, and suffering as being part of the human condition.

(Neff, 2003b).



For the present study, it is operationally defined as the compassionate attitude towards oneself characterized by acceptance of one's perceived shortcomings, inadequacies, failures, and suffering and it is measured through Self Compassion scale prepared and standardized by the investigator with the help of supervising teacher based on the three components viz., self kindness, common humanity, mindfulness.

### **Academic Procrastination**

Academic Procrastination defined as an irrational delay in the academic task due to the contradiction between intention and action, which leads to negative consequences for the procrastinator. (Binder, 2000)

In the present study Academic Procrastination is a voluntary delay of the Completion of an academic task (writing a term paper, studying for examinations, finishing a school related project, or undertaking the weekly reading assignments) within the expected or desired time frame despite expecting to be worse off for the delay and it is measured by Academic Procrastination scale prepared and standardized by the investigator with the help of supervising teacher based on the components Evaluation anxiety, Perfectionism, Poor time management, Dependency and help seeking, Lack of self confidence, Laziness, Lack of assertion and Peer influence.

### **Higher secondary school students**

Pupils studying in standards XI, and XII are theoretically higher secondary school pupils.

### **Objectives of the Study**

1. To find out the extent of Cognitive Dissonance, Self Compassion (Total score and Component wise) and Academic Procrastination among higher secondary school students of Kerala
2. To find out whether there exists any significant difference in Cognitive Dissonance, Self Compassion (total score and component wise) and Academic Procrastination among higher secondary school students based on relevant sub groups viz. gender, locale, type of management and stream of their study.
3. To find out the main effects of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students for the total sample and relevant sub groups.
4. To find out the first order interaction effects of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students for the total sample and relevant sub groups.
5. To develop regression equation to predict Academic Procrastination from Cognitive Dissonance and Self Compassion.
6. To develop regression equation to predict Academic Procrastination from Self Kindness, Common Humanity and Mindfulness.

### **Hypotheses of the Study**

1. There exist significant gender difference in the mean scores of Cognitive Dissonance, Self Compassion(total score and component wise) and Academic Procrastination among higher secondary school students.

2. There exist significant locale difference in the mean scores of Cognitive Dissonance, Self Compassion(total score and component wise) and Academic Procrastination among higher secondary school students.
3. There exist significant management difference in the mean scores of Cognitive Dissonance, Self Compassion(total score and component wise) and Academic Procrastination among higher secondary school students.
4. There exist significant difference in the mean scores of Cognitive Dissonance, Self Compassion(total score and component wise) and Academic Procrastination among higher secondary school students based on stream of study.
5. The main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for total sample.
6. The main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for boys.
7. The main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for girls.
8. The main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for rural students.

9. The main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for urban students.
10. The main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for government students.
11. The main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for aided students.
12. The main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for HSE students.
13. The main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for VHSE students
14. The first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for total sample.
15. The first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for boys.
16. The first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for girls.

17. The first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for rural students.
18. The first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for urban students.
19. The first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for government students.
20. The first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for aided students.
21. The first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for HSE students.
22. The first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for VHSE students
23. There is significant individual and combined contribution of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students of Kerala for total sample.
24. There is significant individual and combined contribution of Self Kindness, Common Humanity and Mindfulness on Academic Procrastination among higher secondary school students of Kerala for total sample.

## **Variables Selected for the Study**

The independent and dependent variables selected for the present study are the following.

### **Independent Variables**

Two independent variables were selected for the study. They are.

- Cognitive Dissonance
- Self Compassion

### **Dependent Variables**

- Academic Procrastination

### **Basal Variables**

Basal variables selected for the study are gender, locale stream of study and type of management of schools.

## **Methodology**

The methodology of the study has been outlined as below.

### **Design of the study**

The investigator used survey method to study the influence of independent variables Cognitive Dissonance and Self Compassion on dependent variable Academic Procrastination. The survey method comes under the purview of descriptive study.

## **Sample**

The present study is conducted on a representative sample of 1001 higher secondary school students selected from Kerala. Due weightages were given to the relevant subgroups of the population such as gender, type of management, stream of study and locale of the institution. Stratified sampling technique is used for the present study.

## **Tools**

All the variables were measured using standardized tools acceptable reliability and validity. Scale of Cognitive Dissonance, Self Compassion and Academic Procrastination were developed and standardized by the investigator. The tools are the following

- (i). Cognitive Dissonance scale (Koya H M P & Shimimol P.S, 2015)
- (ii). Self Compassion scale (Koya H M P & Shimimol P.S, 2015)
- (iii). Academic Procrastination scale (Koya H M P & Shimimol P.S, 2015)

## **Statistical Techniques Used**

The main statistical techniques employed for the present investigations are given below:

- (i). Two tailed test of significance of difference between mean scores of large independent samples.
- (ii). Two way ANOVA with 3x3 factorial design
- (iii). ANOVA followed by scheffe's test of post hoc comparison
- (iv). Multiple Regression Analysis

### **Scope and delimitation**

The main purpose of present investigation is to explore how Cognitive Dissonance and Self Compassion influence Academic Procrastination of higher secondary school students. For this study appropriate tools constructed and standardized by the investigator. With the help of appropriate tools the required data were collected from a stratified sampling of 1001 higher secondary school students of Kerala state to make the study more objective and precise. Analysis of the data was done with utmost care. Since the sample of the study includes various students from different districts. The results can be generalized. The influence of the study may provide valuable suggestions for educators and administrators.

Though possible precautions were taken to obtain reliable and generalisable results, the investigator would like to point out certain limitations likely to enter into the study.

The present study is delimited to the following aspects.

1. Selection of the independent variables for the study is confined to two major variables viz., Cognitive Dissonance and Self Compassion.
2. Even though the population for the study is higher secondary school students, sample was confined to students studying standard XI only.
3. Selection of a few schools across the state intended for data collection may not be representative of all institutions in the state.
4. The generalisability of the study will be limited to the extent of the nature of the tools and sample selected.



## **Organization of the Research Report**

The report of the study is organized in five chapters. The details incorporated in each chapter are as follows:

**Chapter 1** includes a brief introduction of the problem, need and significance of the study, statement of the problem, definition of key terms, variables of the study, hypotheses and objectives methodology, scope and limitations of the study.

**Chapter II** presents a brief theoretical outline of variables and a summary of the review of related studies

**Chapter III** includes the methodology of the study in detail., this chapter comprises description of method used, variables, tools used for the data collection, sample for the study, data collection procedure, and statistical techniques used for analysis

**Chapter IV** deals with the statistical analysis of data and interpretation of the results.

**Chapter V** contains a brief view of summary of the study, major findings and conclusions of the study. It also presents detailed report on educational implications of the study and suggestions for further research.

Report is followed by the references and a series of appendices pertaining to this study.

**REVIEW OF RELATED LITERATURE  
AND META ANALYSIS**

- *Theoretical overview of Cognitive Dissonance*
- *Studies related to Cognitive Dissonance*
- *Theoretical overview of Self Compassion*
- *Studies related to Self Compassion*
- *Theoretical Overview of Academic Procrastination*
- *Studies Related to Academic Procrastination*

## **REVIEW OF RELATED LITERATURE**

This chapter describes the underpinning theories of the variables and tries to provide better understanding of the concept and explores relationship between variables.

Review of related literature is an important part of any research. Review helps the researchers to gather up to date information about what has been done in the area of study. for any worthwhile study in any field of knowledge, the research worker needs an adequate familiarity to the work that has already been done in the area of his choice. Review of related literature avoids duplication of work that has already been done and it helps the investigation go deep into the problem at hand.

According to Good(1959) “review of related literature helps a researcher to give a deep insight to the design of the study. It helps to show whether the evidence already available solve the problem adequately without further investigation and others to avoid the risk of duplication.”

Identification of a problem, development of a research design, and determination of the size and scope of the problems, all depend to a great extent as the core and intensity with which a researcher has examined the literature related to the intended research. It also provide an insight into the method measures, subjects and approaches used by other research workers and can thus lead to significant improvement of the design.

The literature reviewed in the present study has been classified into the following heads.

- Theoretical overview of Cognitive Dissonance
- Studies related to Cognitive Dissonance
- Theoretical overview of Self Compassion
- Studies related to Self Compassion
- Theoretical Overview of Academic Procrastination
- Studies Related to Academic Procrastination

### **Theoretical Overview of Cognitive Dissonance**

The term dissonance and consonance refer to relations which exists between pairs of elements. These elements refer to what has been called cognition , that is, the things a person knows about himself, about his behavior, about his surroundings. ‘These elements, then are “knowledges”, that is the plural form of the word. Some of these elements represent knowledge about oneself: what one does, what one feels, what one wants or desires, what one is, and the like. Other elements of knowledge concern the world in which one lives: what is where, what leads to what , what things are satisfying or painful or inconsequential or important etc’ (Festinger, 1957).

### **Emergence of the concept**

Cognitive Dissonance theory (Festinger, 1957) inspired an extraordinary amount of exciting research and theory, particularly during the two decades following its publication. Today, after a period of apparent waning, discussions and

revisions of dissonance theory are reappearing (e.g., Aronson, 1992, 1997; Beauvois & Joule, 1996; Goethals, 1992; Harmon-Jones, Brehm, Greenberg, Simon, & Nelson, 1996; Simon, Greenberg, & Brehm, 1995), and it has even been stated that the theory is set for a re-emergence (Aronson, 1992, 1997). The phenomenon of Cognitive Dissonance has been investigated through a long period of time, as it involves many areas of psychology such as attitudes and prejudice, moral cognition, decision making, happiness and therapy (Jones and Mills, 1999). However, despite deep interest, psychologists have only little understanding over Cognitive Dissonance up to date.

Festinger (1957) proposed the theory of Cognitive Dissonance. This theory centres around the idea that if a person knows various things that are not psychologically consistent with one another, he will, in a variety of ways, try to make them more consistent. The basic hypothesis of the theory stated as follows

1. The existence of dissonance, being psychologically uncomfortable, will motivate the person to try to reduce the dissonance and achieve consonance
2. When dissonance is present, in addition to trying to reduce it, the person will actively avoid situations and information which would likely increase the dissonance.

### **Widening the concept**

Elliot Aronson, (1999) who was a student of Festinger, soon made some changes to the theory of Cognitive Dissonance. One of the changes he made was adding the idea that a person's self-concept was at the heart of the conflicting

cognitions. Accordingly, “dissonance theory makes its strongest predictions when an important element of the self-concept is threatened, typically when a person performs a behavior that is inconsistent with his or her sense of self” (Aronson, 1999, p. 110). The concept of Cognitive Dissonance was also studied by Cooper and Fazio (1984). They proposed a different view of Cognitive Dissonance consisting of two parts; arousal and motivation. They explained how dissonance arousal is a "general and undifferentiated state of arousal" and how it was separate from the motivation to reduce dissonance (Cooper & Fazio, 1984, p. 256). Cooper and Fazio (1984) proposed that the motivation to reduce the dissonance is not due to conflicting cognitions, but instead occurs when the “individual labels his state of arousal negatively and attributes that arousal to his having freely produced an aversive consequence” (p. 256)

In other words, a person will only experience a tension, if they determine that what they are feeling is negative and that they also feel responsible for their actions causing unwanted negative results or foresee that their actions will cause unwanted negative results. Aronson (1999) states that he could never get himself to accept the idea that these aversive consequences were needed for the presence of dissonance. Later Aronson showed a study where participants were experiencing Cognitive Dissonance and no aversive consequences existed, thereby revalidating the original theory of conflicting cognitions as the cause of Cognitive Dissonance (Aronson, 1999, p. 120)

### **Cognitive Dissonance: unveiling core concept**

Cognitive Dissonance is a condition that happens when an individual realizes they are holding two “inconsistent cognitions” (Festinger, 1957, p. 3). In example, a person could be thinking of two conflicting beliefs at the same time and experience Cognitive Dissonance. This Cognitive Dissonance then becomes a drive to reduce the dissonance and return to a state of harmony (Festinger, 1957). Festinger (1957) compares this to an individual feeling hunger and then becoming motivated to reduce their hunger. Cognitive Dissonance can happen when a person experiences new events or information which doesn’t match with an existing “knowledge, opinion or cognition concerning a behavior” (Festinger, 1957, p. 4). This can happen in decision making as well. When an individual makes a decision, their thinking about the steps they took will often conflict, to some degree, with their existing opinions or beliefs (Festinger, 1957, p. 5). Emergence of the Cognitive Dissonance presented in the following figure

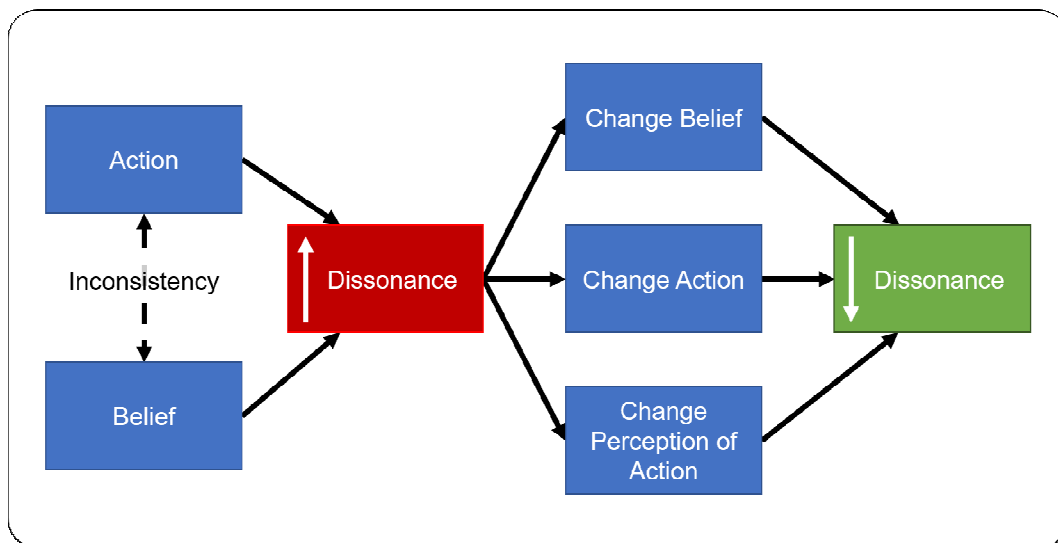


Figure 1: Cognitive Dissonance Process

The inconsistency between Action and belief create dissonance. Either change belief or change action or change perception of action we can reduce the dissonance.

### Dissonance Elements

Festinger (1957) saw dissonance and consonance as relationships between pairs of elements. He explained how “opinions” and “beliefs, values, or attitudes” are all examples of “knowledges” or “elements of cognition” (p. 10). These elements represent various different ideas. For example some elements represent “knowledge about oneself: what one does, what one feels, what one wants or desires, what one is, and the like”, while other elements represent “knowledge concerning the world in which one lives: what is where, what leads to what, what things are satisfying or painful or inconsequential or important” (Festinger, 1957, p. 9). When comparing two elements, they need to be relevant to each other and the relationship between them is either “dissonant” or “consonant” (Festinger, 1957, p. 15). When looking at the dissonant relationship, Festinger explains that “two elements are in a dissonant



relation if, considering these two alone, the obverse of one element would follow from the other" (Festinger, 1957, p. 5). For example, when someone knows 'I'm weak in public speaking' but at the same time turn to speak in school assembly'. The cognitive element "I'm weak in public speaking" would then be in dissonance with the cognitive element "It is my turn to speak in school assembly".

In Adlerian psychology this is similar to the concept of one's private world, which Mosak and Maniaci (1999) explains as including the following: (a) thoughts, (b) attitudes, (c) beliefs, and (d) convictions (p. 121). Therefore if any of these cognitions are in conflict with each other Cognitive Dissonance would occur. For example one could have a belief 'I believe that I have the ability to solve my problems without depending on others' but the action is 'I seek the guidance of others in some difficult situations'. Here action is contradict with belief. Festinger (1957) also gave an example of a person choosing to continue playing a card game and losing money while knowing that the others at the table are professionals. In this case, the knowledge about the professionals would be dissonant with cognition about the person's behavior. It is thought that all individuals carry around conflicting beliefs in their belief system (Rokeach, 1960). However, these cognitions need to be held at the same time in order to create Cognitive Dissonance (Festinger, 1957)

### **Categories for Inconsistencies**

There are many categories of cognitions or elements that can be in conflict with each other. Rokeach (1968) expanded this idea when he documented additional categories of beliefs and showed all the possible interactions that could create Cognitive Dissonance. Rokeach (1968) referenced Festinger as being mostly

focused on conflicts between attitude and cognitions about behavior (p. 21). Rokeach (1968) described his work as going above other consistency theories in that he was interested in all the different types of conflicting cognitions that a person might experience (p. 20). Rokeach (1968) describes seven different types of categories that could conflict with each other as follows: (a) Attitude, (b) Attitude system, (c) Instrumental value system, (d) Terminal value system, (e) Cognitions about own behavior, (f) Cognitions about significant others' attitudes, values, motives, or behavior, and finally (g) Cognitions about behavior or non-social objects (p. 20).

### **Magnitude of Dissonance**

When Cognitive Dissonance does occur, there is a way to measure the amount or how much is the intensity of dissonance. Festinger (1957) explains that the amount of dissonance is related to how many elements there are as well as how valuable each one is to a person. To use higher secondary school student, if this student put less value on the cognitive element that "I have interested in leadership and I can lead the group activities in our class room. then the amount of dissonance would also be reduced. To use another example, It is necessary to attend all class in order to achieve great success. I can't make use of many classes because of the interactions or entertainments with my fellow students or peers. Here probably be a large discrepancy between the importance of the belief in charity and the value of his behavior. He would then experience a large amount of Cognitive Dissonance.

All dissonant relations, of course, are not of equal magnitude. It is necessary to distinguish degrees of dissonance and to specify what determines how strong a

given dissonant relation is. We will briefly discuss some determinants of the magnitude of dissonance between two elements and then turn to a consideration of the total amount of dissonance which may exist between two clusters of elements.

Festinger (1957) notes that other cognitive elements also need to be taken into account when measuring amount of Cognitive Dissonance, such as "the total amount of dissonance that exists between two clusters of cognitive elements is a function of the weighted proportion of all relevant relations between the two clusters that are dissonant" (p. 18). Therefore, you would take into account all cognitive elements in a cluster when looking for the total amount of Cognitive Dissonance. The cognitive element that "I should be successful" on one side of the equation and the cognitive elements; "I am going to miss the deadline" and "I'm not going to graduate" might be on the other side. Then, accounting for the value placed on each element, one can calculate the amount of Cognitive Dissonance. This amount then determines the strength of the tension for an individual (Festinger, 1957).

Since Cognitive Dissonance can be from more than two conflicting cognitions, the amount of working memory could restrict the number of cognitions that can be held at one time (Gawronski, 2012). For example if you can only hold two cognitions at the same time then adding additional consonant cognitions to one side of the equation would not be an option. This could have implications for individuals with cognitive impairments In one study, a higher amount of Cognitive Dissonance was shown to be correlated with one choosing to respond with "avoidance mechanisms" to reduce dissonance (Kumpf & Gotz-Marchand, 1973, p. 5).

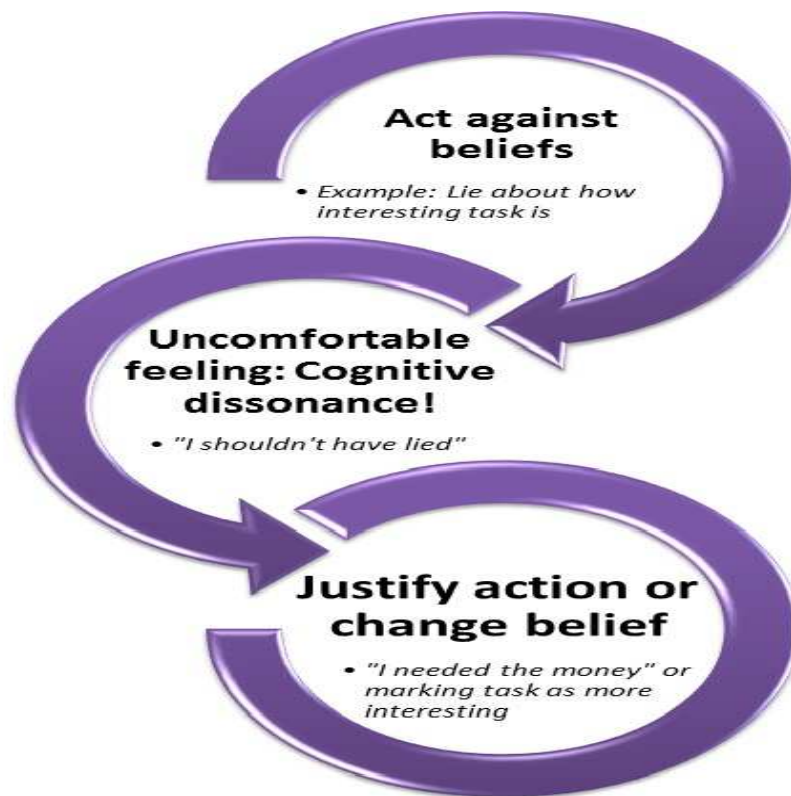


Figure 2: Reduce magnitude of dissonance through justification

One might then wonder, since “avoidance mechanisms” are less likely to be selected when Cognitive Dissonance is low (compared to when Cognitive Dissonance is high), if this might leave room for “confrontation mechanisms” as a more available option. Freedman (1964) supported this concept when he studied the relationship between the amount of Cognitive Dissonance and the change of an individual’s opinion. More specifically, that when an individual placed a high value on an opinion, changing that opinion was easier at lower levels of Cognitive Dissonance than at higher levels

In addition Freeman (1964) explained that when Cognitive Dissonance increased, changing one’s opinion became more difficult and thus it was easier to reject new information (p. 294). The “confrontation mechanisms” measured in the

Kumpf and Gotz-Marchand. (1973) study, were “changing one’s attitude (conformity)” and “devaluation of the importance of the issue” (p. 2). Kumpf and Gotz-Marchand (1973) explains other “confrontation mechanisms” as the following: (a) reduction of ego-involvement, (b) behavioral change, and (c) influence attempts (p. 256).

When the amount of Cognitive Dissonance increases, the use of “avoidance mechanisms” also increased. Kumpf and Gotz-Marchand. (1968) referenced Kelman and Baron (1968) in their discussion of avoidance versus confrontation mechanisms. Avoidance mechanisms are defined as “responses that imply ‘turning the back’ on the newly introduced inconsistency through distortion of reality or selective interpretation” (Kumpf & Gotz-Marchand, 1973, p. 256). This correlates well with the Adlerian idea that when events challenge a person’s lifestyle that they might use “selective perception” to “filter out, reconstruct, or reinterpret the events so that they do not threaten the cherished set of rules” (Shulman & Mosak, 1995, p. 19).

This study measured the avoidant mechanisms of “derogation of source” and “under recall (distortion of the result in a favorable direction)” (Kumpf & Gotz-Marchand, 1973, p. 259). Kumpf and Gotz-Marchand (1973) explain the other “avoidance mechanisms” as the following: (a) denial, (b) distortion, and (c) rationalization (p. 256). Individuals use “avoidance mechanism” to “distort reality” or “selectively interpret the new information” (Kumpf & Gotz-Marchand, 1973, p. 256). This idea of “avoidance mechanisms” fits well with the Adlerian perspective that people hold tight to their beliefs, because adjusting their beliefs might cause them to be seen by others as less than they already think themselves to be (Carlson

et al., 2006, p. 90). This also correlates well with belief systems theory in that one of the purposes of belief disbelief systems is to fight off “threatening aspects of reality” (Rokeach, 1960, p. 67).

In other words, when an individual is exposed to new information that conflicts with their existing beliefs it could be perceived as a threat and would then create Cognitive Dissonance. The more the amount of Cognitive Dissonance there is, the more psychological discomfort there would be (Elliot & Devine, 1994). If this individual had a high “need to ward off threat” they would then have a low “cognitive need to know” (Rokeach, 1960). As we now turn our attention to cognitive rigidity, it is important to note that Cognitive Dissonance or psychological discomfort has been correlated with state anxiety (Menasco & Hawkins, 1978). Anxiety in turn has been correlated with the cognitive distortion all-or-none thinking (Burns, 1980).

Most recently, Gawronski (2012) helped to bring the focus back to Festinger’s original theory of Cognitive Dissonance, reminding us that “inconsistencies serve as an epistemic cue for errors in one’s system of beliefs” (p. 653) and that the inconsistent elements “have to be understood as propositional beliefs about states of affairs” (p. 654). Gawronski (2012) also reminds us about dissonance and how it is “a desire to reduce the underlying inconsistency and to maintain a state of consonance” (p. 652). Overall, there appears to be many theories on Cognitive Dissonance, but regardless of what theory you look at, they all seem to agree that Cognitive Dissonance does exist.

Since the magnitude of dissonance is an important variable in determining the pressure to reduce dissonance, and since we will deal with measures of the magnitude of dissonance repeatedly in considering data, it may be well to summarize our discussion concerning the magnitude of dissonance.

1. If two cognitive elements are relevant, the relation between them is either dissonant or consonant.
2. The magnitude of the dissonance (or consonance) increases as the importance or value of the elements increases.
3. The total amount of dissonance that exists between two clusters of cognitive elements is a function of the weighted proportion of all relevant relations between the two clusters that are dissonant. The term “weighted proportion” is used because each relevant relation would be weighted according to the importance of the elements involved in that relation.

### **Cognitive Dissonance as a motivational factor**

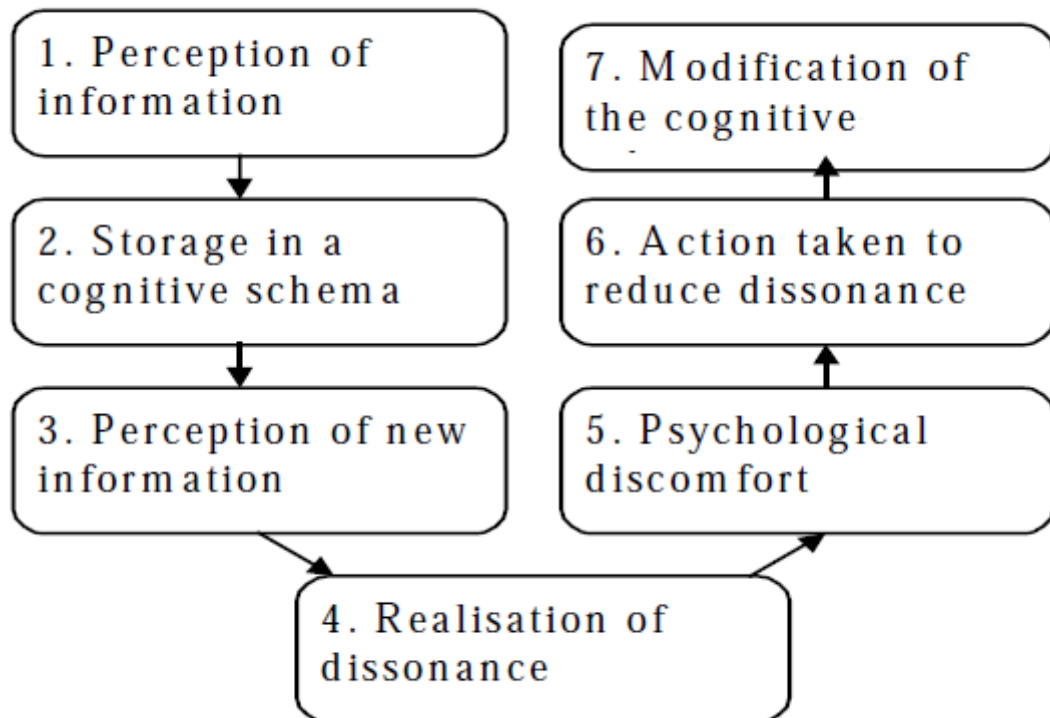
Elliot and Devine (1994) found that Cognitive Dissonance was felt as psychological discomfort and would eventually drive one to reduce dissonance. This supported Festinger’s (1957) original theory. The experimental study reveals that Cognitive Dissonance act as motivational factor. The results showed that Cognitive Dissonance was a motivational state. The study also concluded that individuals feel Cognitive Dissonance as psychological discomfort (Elliot & Devine, 1994)

In Adlerian psychology, a similar concept is seen in “inferiority feelings”. Inferiority feelings “evoke self-evaluation of the individual’s being worth less than

others” (Clark, 1999, p. 75). Adler (1935) explains how people respond to these feelings of inferiority by “striving to overcome” (p. 356). Clark (1999) also explains how Adler saw people as using “safeguarding tendencies” as a way to “rid themselves of those feelings of inferiority which threaten their self-esteem” (p. 75). For example one might use “selective perception” as a way to ignore certain aspects of an event so that it doesn’t challenge their lifestyle (Shulman & Mosak, 1995, p. 19). These Adlerian concepts correlate well with Cognitive Dissonance.

We have seen how Cognitive Dissonance is felt as psychological discomfort (or unpleasant emotion). Another study explains how defense mechanisms help to protect an individual from unpleasant emotions that are associated with threatening information. This study found that expressing one’s unpleasant emotions would actually bypass the need to use any defense mechanism as a way to reduce the amount of Cognitive Dissonance (Pyszczynski, Greenberg, Solomon, Sideris, & Stubing, 1993). The following figure represents the diagrammatic representation of how psychological discomfort arises.





*Figure 3: Steps in Cognitive Dissonance*

### **Reasons for Cognitive Dissonance:**

The Cognitive Dissonance is a phenomenon that is based on having two opposing ideas or Incompatible on the same aspect. It may cause states of tension, discomfort or discomfort by not being able to harmonize what we think and what we do. The term of dissonance was coined by Leon Festinger in 1957 through the publication of his theory of Cognitive Dissonance. The central point of the work consisted in affirming that human beings seek a state of harmony in their cognitions, that is, in their thoughts, Opinions or Beliefs About the world and about themselves.

The major reasons for Cognitive Dissonance as follows;

**a) Adding new information**

New events may happen or new information may be come known to a person, creating at a least a momentary dissonance with existing knowledge, opinion, or cognition concerning behavior. Since a person does not have complete and perfect control over the information that reaches him and over events that can happen in his environment, such dissonances may easily arise. Also even in the absence of new, unforeseen events or information, the existence of dissonance is undoubtedly an everyday condition. Very few things are all black or all white; very few situations are clear cut enough so that opinions or behaviors are not to some extent a mixture of contradictions.

Where an opinion must be formed or a decision taken, some dissonance is almost unavoidably created between the cognition of the action taken and those opinions or knowledges which tend to point to a different action. In a wide variety of situations in which dissonance is nearly unavoidable. But it remains for us to examine the circumstances under which dissonance, once arisen, persists.

**b) Logical Inconsistency**

Dissonance could arise from logical inconsistency. If a person believed that man will reach the moon in the near future and also believed that man will not be able to build a device that can leave the atmosphere of the earth, these two cognitions are dissonant with one another. The observe of one follows from the other on logical grounds in the person's own thinking process.

Another situation in dissonance arises because of cultural mores. If a person at a formal dinner uses his hands to pick up a recalcitrant chicken bone, the knowledge of what he is doing is dissonant with the knowledge of formal dinner etiquette. The dissonance exists simply because the culture defines what is consonant and what is not. In some other culture, these two cognitions might not be dissonant at all.

**c) Opinion of Others**

Dissonance may arise because one specific opinion is sometimes included, by definition, in a more general opinion. Thus, if a person is a Democrat but in a given election prefers the Republican candidate, the cognitive elements corresponding to these two sets of opinions are dissonant with each other because “being a Democrat” includes, as part of the concept, favoring Democratic candidates.

**d) Past Experience**

Dissonance may arise because of past experience. If a person were standing in the rain and yet could see no evidence that he was getting wet, these two cognitions would be dissonant with one another because he knows from experience that getting wet follows from being out in the rain. If one can imagine a person who had never had any experience with rain, these two cognitions would probably not be dissonant.

## **The Reduction of Dissonance**

The strength of the pressure to reduce the dissonance is a function of the magnitude of the dissonance. The presence of dissonance leads to action to reduce it just as, for example, the presence of hunger leads to action to reduce the hunger. Also, similar to the action of a drive, the greater the dissonance, the greater will be the intensity of the action to reduce the dissonance and the greater the avoidance of situations that would increase the dissonance.

In order to be specific about how the pressure to reduce dissonance would manifest itself, it is necessary to examine the possible ways in which existing dissonance can be reduced or eliminated. In general if dissonance exists between two elements, this dissonance can be eliminated by changing one of those elements. The important thing is how these changes may be brought about. There are various possible ways in which this can be accomplished, depending upon the type of cognitive elements involved and upon the total cognitive context.

### ***Changing Behavioral Cognitive Element***

The simplest and easiest way in which this may be accomplished is to change the action or feeling which the behavioral element represents. Given that a cognition is responsive to “reality” (as we have seen), if the behavior of the organism changes, the cognitive element or elements corresponding to this behavior will likewise change. This method of reducing or eliminating dissonance is a very frequent occurrence. Our behavior and feelings are frequently modified in accordance with new information. If a person starts out on a picnic and notices that it has begun to

rain, he may very well turn around and go home. There are many persons who do stop smoking if and when they discover it is bad for their health.

### ***Changing an Environmental Cognitive Element***

Just as it is possible to change a behavioral cognitive element by changing the behavior which this element mirrors, it is sometimes possible to change an *environmental* cognitive element by changing the situation to which that element corresponds. This, of course, is much more difficult than changing one's behavior, for one must have a sufficient degree of control over one's environment - a relatively rare occurrence.

Changing the environment itself in order to reduce dissonance is more feasible when the social environment is in question than when the physical environment is involved. In order to illustrate rather dramatically the kind of thing that would be involved, it is possible by explaining an hypothetical example.

Whenever there is sufficient control over the environment, this method of reducing dissonance may be employed. For example, a person who is habitually very hostile toward other people may surround himself with persons who provoke hostility. His cognitions about the persons with whom he associates are then consonant with the cognitions corresponding to his hostile behavior.

If a cognitive element that is responsive to reality is to be changed without changing the corresponding reality, some means of ignoring or counteracting the real situation must be used. This is sometimes well-nigh impossible, except in extreme cases which might be called psychotic. If a person is standing in the rain

and rapidly getting soaked, he will almost certainly continue to have the cognition that it is raining no matter how strong the psychological pressures are to eliminate that cognition. In other instances it is relatively easy to change a cognitive element although the reality remains the same. For example, a person might be able to change his opinion about a political officeholder even though the behavior of that officeholder, and the political situation generally, remain unchanged. Usually, for this to occur, the person would have to be able to find others who would agree with and support his new opinion. In general, establishing a social reality by gaining the agreement and support of other people is one of the major ways in which a cognition can be changed when the pressure to change it are present. It can- readily be seen that where such social support is necessary, the presence of dissonance and the consequent pressures to change some cognitive element will lead to a variety of social processes.

### ***Adding New Cognitive Elements***

It is clear that in order to eliminate a dissonance completely, some cognitive element must be changed. It is also clear that this is not always possible. But even if it is impossible to eliminate a dissonance, it is possible to reduce the total magnitude of dissonance by adding new cognitive elements. Thus, for example, if dissonance existed between some cognitive elements concerning the effects of smoking and cognition concerning the behavior of continuing to smoke, the total dissonance could be reduced by adding new cognitive elements that are consonant with the fact of smoking. In the presence of such dissonance, then, a person might be expected to actively seek new information that would reduce the total dissonance and, at the

same time, to avoid new information that might increase the existing dissonance. Thus, to pursue the example, the person might seek out and avidly read any material critical of the research which purported to show that smoking was bad for one's health. At the same time he would avoid reading material that praised this research. (If he unavoidably came in contact with the latter type of material, his reading would be critical indeed.)

Actually, the possibilities for adding new elements which would reduce the existing dissonances are broad. Our smoker, for example, could find out all about accidents and death rates in automobiles. Having then added the cognition that the danger from smoking is negligible compared to the danger he runs driving a car, his dissonance would also have been somewhat reduced. Here the total dissonance is reduced by reducing the *importance* of the existing dissonance.

The above discussion has pointed to the possibility of reducing the total dissonance with some element by reducing the proportion of dissonant as compared with consonant relations involving that element. It is also possible to add a new cognitive element which, in a sense, "reconciles" two elements that are dissonant. Let us consider an example from the literature to illustrate this. Spiro (Ghosts and Spiro, 1953) gives an account of certain aspects of the belief system of the Ifalluk, a non literate society. The relevant points for our purposes here are as follows:

1. In this culture there is a firm belief that people are *good*. This belief is not only that they should be good but that they are good.
2. For one reason or another, young children in this culture go through a period of particularly strong overt aggression, hostility, and destructiveness.

It seems clear that the belief about the nature of people is dissonant with the knowledge of the behavior of the children in this culture. It would have been possible to reduce this dissonance in any number of ways. They might have changed their belief about the nature of people or have modified it so that people are wholly good only at maturity. Or they might have changed their ideas about what is and what is not “good” so that overt aggression in young children would be considered good. Actually, the manner of reducing the dissonance was different. A third belief was added which effectively reduced the dissonance by “reconciliation.” Specifically, they also believe in the existence of malevolent ghosts which enter into persons and cause them to do bad things.

As a result of this third belief, the knowledge of the aggressive behavior of children is no longer dissonant with the belief that people are good. It is not the children who behave aggressively - it's the malevolent ghosts. Psychologically, this is a highly satisfactory means of reducing the dissonance, as one might expect when such belief are institutionalized at a cultural level. Unsatisfactory solutions would not be as successful in becoming widely accepted.

Before moving on, it is worth while to emphasize again that the presence of pressures to reduce dissonance, or even activity directed toward such reduction, does not guarantee that the dissonance will be reduced. A person may not be able to find the social support needed to change a cognitive element, or he may not be able to find new elements which reduce the total dissonance. In fact, it is quite conceivable that in the process of trying to reduce dissonance, it might even be increased. This will depend upon what the person encounters while attempting to reduce the



dissonance. The important point to be made so far is that in the presence of a dissonance, one will be able to observe the *attempts* to reduce it. If attempts to reduce dissonance fail, one should be able to observe symptoms of psychological discomfort, provided the dissonance is appreciable enough so that the discomfort is clearly and overtly manifested.

### **Resistance to Reduction of Dissonance**

If dissonance is to be reduced or eliminated by changing one or more cognitive elements, it is necessary to consider how resistant these cognitive elements are to change. Whether or not any of them change, and if so, which one's will certainly be determined in part by the magnitude of resistance to change which they possess. It is, of course, clear that if the various cognitive elements involved had no resistance to change whatsoever, there would never be any lasting dissonances. Momentary dissonance might occur, but if the cognitive elements involved had no resistance to change, the dissonance would immediately be eliminated. Let us, then, look at the major sources of resistance to change of a cognitive element.

Just as the reduction of dissonance presented somewhat different problems depending upon whether the element to be changed was a behavioral or an environmental one, so the major sources of resistance to change are different for these two classes of cognitive elements.

### ***Resistance to Change of Behavioral Cognitive Elements***

The first and foremost source of resistance to change for *any* cognitive elements is the responsiveness of such elements to reality. If one sees that the grass is green, it is very difficult to think it is not so. If a person is walking down the street, it is difficult for his cognition not to contain an element corresponding to this. Given, this strong, and, sometimes overwhelming responsiveness to reality, the problem of changing a behavioral cognitive element becomes the problem of changing the behavior which is being mapped by the element. Consequently, the resistance to change of the cognitive element is identical with the resistance to change of the behavior reflected by that element, assuming that the person maintains contact with reality.

Certainly much behavior has little or no resistance to change. We continually modify many of our actions and feelings in accordance with changes in the situation. If a street which we ordinarily use when we drive to work is being repaired, there is usually little difficulty in altering our behavior and using a different route. What, then, are the circumstances that make it difficult for the person to change his actions?

1. The change may be painful or involve loss. A person may, for example, have spent a lot of money to purchase a house. If for any reason he now wants to change, that is, live in a different house or different neighborhood, he must endure the discomforts of moving and the possible financial loss involved in selling the house. A person who might desire to give up smoking must endure the discomfort and pain of the cessation in order to accomplish the change. Clearly, in such circumstances

there will be a certain resistance to change. The magnitude of this resistance to change will be determined by the extent of pain or loss which must be endured.

2. The present behavior may be otherwise satisfying. A person might continue to have lunch at a certain restaurant even though they served poor food if, for example, his friends always ate there. Or a person who is very domineering and harsh toward his children might not easily be able to give up the satisfactions of being able to boss someone, even if on various grounds he desired to change. In such instances, of course, the resistance to change would be a function of the satisfaction obtained from the present behavior.

3. Making the change may simply not be possible. It would be a mistake to imagine that a person could consummate any change in his behavior if he wanted to badly enough. It may not be possible to change for a variety of reasons. Some behavior, especially emotional reactions, may not be under the voluntary control of the person. For example, a person might have a strong reaction of fear which he can do nothing about. Also, it might not be possible to consummate a change simply because the new behavior may not be in the behavior repertory of the person. A father might not be able to change the way he behaves toward his children simply because he doesn't know any other way to behave. A third circumstance which could make it impossible to change is the irrevocable nature of certain actions. If, for example, a person has sold his house and then decides he wants it back, there is nothing that can be done if the new owner refuses to sell it. The action has been taken and is not reversible. But under circumstances where the behavior simply cannot change at all, it is not correct to say that the resistance to change of the

corresponding cognitive element is infinite. The resistance to change which the cognitive element possesses can, of course, not be greater than the pressure to respond to reality.

### ***Resistance to Change of Environmental Cognitive Elements***

Here again, as with behavioral cognitive elements, the major source of resistance to change lies in the responsiveness of these elements to reality. The result of this, as far as behavioral elements go, is to tie the resistance to change of the cognitive element to the resistance to change of the reality, namely, the behavior itself. The situation is somewhat different with regard to environmental elements. When there is a clear and unequivocal reality corresponding to some cognitive element, the possibilities of change are almost nil. If one desired, for example, to change one's cognition about the location of some building which one saw every day, this would indeed be difficult to accomplish.

In many instances, however, the reality corresponding to the cognitive element is by no means so clear and unambiguous. When the reality is basically a social one, that is, when it is established by agreement with other people, the resistance to change would be determined by the difficulty of finding persons to support the new cognition.

There is another source, of resistance to change of both behavioral and environmental cognitive elements. We have postponed discussion of it until now, however, because it is a more important source of resistance to change for environmental elements than for others. This source of resistance lies in the fact that

an element is in relationship with a number of other elements. To the extent that the element is consonant with a large number of other elements and to the extent that changing it would replace these consonances with dissonances, the element will be resistant to change.

The above discussion is not meant to be an exhaustive analysis of resistance to change or a listing of conceptually different sources. Rather, it is a discussion which attempts to make distinctions that will help operationally rather than conceptually. In considering any dissonance and the resistance to change of the elements involved, the important factor in the attempt to eliminate the dissonance by changing an element is the total amount of resistance to change; the source of resistance is immaterial.

### **Limits of the Magnitude of Dissonance**

The maximum dissonance that can possibly exist between any two elements is equal to the total resistance to change of the less resistant element. The magnitude of dissonance cannot exceed this amount because, at this point of maximum possible dissonance, the less resistant element would change, thus eliminating the dissonance.

This does not mean that the magnitude of dissonance will frequently even approach this maximum possible value. When there exists a strong dissonance that is less than the resistance to change of any of the elements involved, this dissonance can perhaps still be reduced for the total cognitive system by adding new cognitive elements. In this way, even in the presence of very strong resistances to change, the total dissonance in the system could be kept at rather low levels.

Consider an example of a person who spends what for him is a very large sum of money for a new car of an expensive type. Let us also imagine that after purchasing it he finds that some things go wrong with it and that repairs are very expensive. It is also more expensive to operate than other cars, and what is more, he finds that his friends think the car is ugly. If the dissonance becomes great enough, that is, equal to the resistance to change of the less resistant element, which in this situation would probably be the behavioral element, he might sell the car and suffer whatever inconvenience and financial loss is involved. Thus the dissonance could not exceed the resistance the person has to changing his behavior, that is, selling the car.

Consider the situation where the dissonance for the person who bought a new car was appreciable but less than the maximum possible dissonance, that is, less than the resistance to change of the less resistant cognitive element. None of the existing cognitive elements would then be changed, but he could keep the total dissonance low by adding more and more cognitions that are consonant with his ownership of the car. He begins to feel that power and riding qualities are more important than economy and looks. He begins to drive faster than he used to and becomes quite convinced that it is important for a car to be able to travel at high speed. With these cognitions and others, he might succeed in rendering the dissonance negligible.

It is also possible, however, that his attempts to add new consonant cognitive elements would prove unsuccessful and that his financial situation is such that he could not sell the car. It would still be possible to reduce the dissonance by what also amounts to adding a new cognitive element, but of a different kind. He can admit to

himself, and to others, that he was wrong to purchase the car and that if he had it to do over again, he would buy a different kind. This process of divorcing himself psychologically from the action can and does materially reduce the dissonance. Sometimes, however, the resistances against this are quite strong. The maximum dissonance which could exist would, in such circumstances, be determined by the resistance to admitting that he had been wrong or foolish.

### **Avoidance of Dissonance**

The discussion thus far has focused on the tendencies to reduce or eliminate dissonance and the problems involved in achieving such reduction. Under certain circumstances there are also strong and important tendencies to avoid increases of dissonance or to avoid the occurrence of dissonance altogether. Let us now turn our attention to a consideration of these circumstances and the manifestations of the avoidance tendencies which we might expect to observe. The avoidance of an increase in dissonance comes about, of course, as a result of the existence of dissonance. This avoidance is especially important where, in the process of attempting to reduce dissonance, support is sought for a new cognitive element to replace an existing one or where new cognitive elements are to be added. In both these circumstances, the seeking of support and the seeking of new information must be done in a highly selective manner. A person would initiate discussion with someone he thought would agree with the new cognitive element but would avoid discussion with someone who might agree with the element that he was trying to change. A person would expose himself to sources of information which he expected

would add new elements which would increase consonance but would certainly avoid sources which would increase dissonance.

If there is little or no dissonance existing, we would not expect the same kind of selectivity in exposure to sources of support or sources of information. In fact, where no dissonance exists there should be a relative absence of motivation to seek support or new information at all. This will be true in general, but there are important exceptions. Past experience may lead a person to fear, and hence to avoid, the initial occurrence of dissonance. Where this is true, one might expect circumspect behavior with regard to new information even when little or no dissonance is present to start with.

The operation of a fear of dissonance may also lead to a reluctance to commit oneself behaviorally. There is a large class of actions that, once taken, are difficult to change. Hence, it is possible for dissonances to arise and to mount in intensity. A fear of dissonance would lead to a reluctance to take action - a reluctance to commit oneself. Where decision and action cannot be indefinitely delayed, the taking of action may be accompanied by a cognitive negation of the action. Thus, for example, a person who buys a new car and is very afraid of dissonance may, immediately following the purchase, announce his conviction that he did the wrong thing. Such strong fear of dissonance is probably relatively rare, but it does occur. Personality differences with respect to fear of dissonance and the effectiveness with which one is able to reduce dissonance are undoubtedly important in determining whether or not such avoidance of dissonance is likely to happen. The



operational problem would be to independently identify situations and persons where this kind of a priori self-protective behavior occurs.

### **Studies Related to Cognitive Dissonance**

Guerra and Wubben (2017) conducted a study on Teacher Beliefs and Classroom Practices Cognitive Dissonance in High Stakes Test-Influenced Environments. In this study, the authors qualitatively investigate, through the theoretical perspective of Cognitive Dissonance, the relationship between teacher beliefs and their associated teacher practices at two public elementary schools with diverse student populations. The study revealed that beliefs (culturally proficient beliefs, deficit beliefs) do teachers hold about teaching students, the relationship among culturally proficient beliefs, deficit beliefs, and teacher practices in the classroom.

Oduh (2016) conducted a study on Dimensions of Cognitive Dissonance and the Level of Job Satisfaction among Counsellors in Delta and Edo States, Nigeria. This study was conducted by three research questions and one null hypothesis. The design of the study was correlational survey. The sample of the study was 158 practicing counselors in public secondary schools in Delta and Edo states. The tool used for data collection was the Counsellor's Dissonance and Job Satisfaction Questionnaire (CDJSQ). The result shows that the dimensions of Cognitive Dissonance are significantly related to the level of satisfaction of counsellors on the job.

Rose (2015) conducted a study on Resistance Is Futile: Cognitive Dissonance, Temporal Refusal, and the E-Learning Environment as Cyborg. Two social scientific concepts are revisited in this analysis: Cognitive Dissonance (social psychology) and temporal refusal (critical sociology). In this study revealed that a critical reflexivity in teachers to identify and take advantage of opportunities to resist the absorption of distinctiveness in the online educational environment.

Al Qtaibi (2015) conducted a study on Cognitive Dissonance and its Relationship to Self- Concept and Academic Achievement among Male and Female Students of Umm Al-Qura University. The present study addressed a number of goals, most important of which is to know the nature of the relationship between the dimensions of Cognitive Dissonance, self- concept and academic achievement among students of Umm Al-Qura University. The final sample consisted of (330) male and female students at the University of Umm Al Qura. The study used the DISS-R (Chow, Cassel & Reiger, 2001) and the Self-Concept of Minski(1987) along with the GPA of all the students. Results shows that on inverse correlation between Cognitive Dissonance, self- concept and academic achievement.

Corradi Clarebout and Elen (2015) conducted a study on Cognitive Dissonance as an Instructional Tool for Understanding Chemical Representations this study was conducted on 133 learners . The results provide insight into three separate mechanisms of learning with MER. (1) A memory (number of ideas reproduced) and (2) an accuracy (correctness of these ideas) effects occur when two representations are presented in a sequence. An accuracy and a (3) redundancy (number of redundant ideas remembered) effects occur when three representations

are presented in a sequence. The identified effects are analyzed in terms of the concept of Cognitive Dissonance.

Cincera (2013) conducted a study on *Managing Cognitive Dissonance: Experience from an Environmental Education Teachers' Training Course in the Czech Republic*. This study was conducted on a qualitative evaluation of seven in-service environmental education teacher training courses conducted in the Czech Republic in 2009-2011. The evaluation applied a grounded theory approach. 14 focus groups, 13 interviews and two post-programme questionnaires were used. The evaluation describes a process of managing Cognitive Dissonance between the participants' concepts of effective teaching and environmental education and concepts presented by the courses. The paper discusses the strategies applied by the course managers for facilitating a conflict and defensive mechanisms used by the participants. The paper also discusses the implication of this experience for future courses.

Allahyani(2012) studied *The Relationship between Cognitive Dissonance and Decision-Making Styles in a Sample of Female Students at the University of Umm Al Qura* with 263 female students at Umm Al-Qura University. The tools used by the study were the Cognitive Dissonance scale (Cassel, Chow & Reiger, 2001) and the Scott and Bruce (Bruce Scott &, 1995) scale for decision-making styles. The most eminent result of the study, as of magnitude of Cognitive Dissonance, is that (40.3) of the total sample size reflect Cognitive Dissonance which suggests that the total Cognitive Dissonance present is below the average. The results of the study also showed a positive relationship of statistical function

between the internal personal dimension in the Cognitive Dissonance scale and the overall and sub scores for the following decision-making styles (the intuitive, the spontaneous, & the avoidant style).

Al Otaibi (2012) conducted a study *The Relationship between Cognitive Dissonance and the Big-5 Factors Model of the Personality and the Academic Achievement in a Sample of Female Students at the University of Umm Al-Qura*. This study was conducted on 253 female students from Umm Al-Qura University measured by Cognitive Dissonance scale (Cassel, Chow & Reiger, 2001) and the Big-Five Factors scale (Abdullah Al-Roait'e, 2007), together with the academic achievement scores. The main results of the study were the existence of direct correlation between the Cognitive Dissonance and neuroticism and the overall score of the Big-five factors scale. Result revealed that the overall Cognitive Dissonance and its different dimensions and the academic achievement are inverse relationship.

Glatz Stattin and Kerr(2012) conducted a study on *A Test of Cognitive Dissonance Theory to Explain Parents' Reactions to Youths' Alcohol Intoxication*. In this study used a longitudinal, school-based sample of 494 youths (13 and 14 years, 56% boys) and their parents. General Linear Model (GLM) analyses were used to test the main hypotheses. The findings of the study suggest that to eliminate the dissonance between their strict attitudes against youth drinking and their knowledge of their own youths' drinking, parents changed their attitudes and became more lenient.

Linenberger and Bretz (2012) conducted a study on Generating Cognitive Dissonance in Student Interviews through Multiple Representations. In this study explores what students understand about enzyme-substrate interactions, using multiple representations of the phenomenon. In this paper authors describe their use of the 3 Phase-Single Interview Technique with multiple representations to generate Cognitive Dissonance within students in order to uncover misconceptions of enzyme-substrate interactions. Findings from 25 student interviews are interpreted through the lens of multiple theoretical frameworks, including personal constructivism and coherence formation. The importance of classroom teachers engaging students in dialogue about representations was discussed.

Liu (2008) conducted a study on Expectation matters: The effect of Cognitive Dissonance on Self- Esteem Academic Disengagement, Achievement and associated emotions. This study examined the effect of achievement dissonance on academic disengagement, academic achievement, self-esteem and associated emotions. The main objective of this study was to investigate if a discrepancy between desired achievement and actual achievement would affect the motivation to study. Participants were 124 undergraduate students. Academic dissonance did have effects on the motivation of studying. The role of self-esteem had important influences on the dissonance process.

Alford (2010) conducted study on Cognitive Dissonance Experienced by Secondary General Education Teachers When Teaching Inclusion Classes .The findings from this qualified phenomenological research study involved 20 secondary general education teachers who taught inclusion classes. The research study

investigated the lived experiences and perceptions of teachers through in-depth interviews and using a modified van Kaam method of data analysis, At last 6 software, and Microsoft Excel to corroborate involvement between teacher efficacy and dissonance. All the emerged themes influenced the quality of teacher efficacy. Result revealed that enhanced meaningful professional development for teaching in the inclusion setting that will produce optimal results for students.

Becker Smith and Ciao (2006) conducted a study on Peer-Facilitated Eating Disorder Prevention: A Randomized Effectiveness Trial of Cognitive Dissonance and Media Advocacy. The study aims to find out the effectiveness of 2 interventions in reducing eating disorder risk factors under naturalistic conditions in sororities. On the basis of previous research, the campus sororities chose to implement a semimandatory, 2-session eating disorder prevention program to all new sorority members (N = 90) during sorority orientation. Results indicate that a semi mandatory format does not reduce effectiveness.

Dechawatanapaisal and Siengthai (2006) studied The Impact of Cognitive Dissonance on Learning Work Behavior. Primary data were obtained through a questionnaire survey of 162 respondents from three organizations that had recently experienced an array of changes. Study revealed that psychological discomfort is a condition that blocks people from acquiring and learning new knowledge during the transformation period. The results also confirm the "normative perspective" of organizational learning that the effective learning process can be driven by some underlying factors including Cognitive Dissonance and HR practices.

Ruiz and Tanaka (2001) conducted a study on the relationship between

cognitive dissonance and helping behavior. Experimental method is used for this study. participants are ninety five female Japanese university under graduate students. the findings of the study suggested that Cognitive Dissonance heightened the disposition to help; the dissonant women exposed to mood neutral tape recording were found to be the most helpful in gathering the computer cards.

The summary of the studies Cognitive Dissonance as Follows

Author & year	Variables	Result
Guerra and Wubbena (2017)	Teacher Beliefs and Classroom Practices in Cognitive Dissonance	Beliefs (culturally proficient beliefs, deficit beliefs) do teachers hold about teaching students, the relationship among culturally proficient beliefs, deficit beliefs, and teacher practices in the classroom.
Oduh (2016)	Dimensions of Cognitive Dissonance and the Level of Job Satisfaction	Dimensions of Cognitive Dissonance are significantly related to the level of satisfaction of counsellors on the job.
Rose (2015)	Cognitive Dissonance, Temporal Refusal, and the E-Learning Environment	Critical reflexivity in teachers to identify and take advantage of opportunities to resist the absorption of distinctiveness in the online educational environment.
Al Qtaibi (2015)	Cognitive Dissonance and its Relationship to Self-Concept and Academic Achievement	Inverse correlation between Cognitive Dissonance, self-concept and academic achievement.
Corradi Clarebout and Elen (2015)	Cognitive Dissonance as an Instructional Tool for Understanding Chemical Representations this study was conducted on 133 learners	Provide insight into three separate mechanisms of learning with MER.

Author & year	Variables	Result
Cincera (2013)	Managing Cognitive Dissonance: Experience from an Environmental Education Teachers' Training Course in the Czech Republic.	Evaluation describes a process of managing Cognitive Dissonance between the participants' concepts of effective teaching and environmental education and concepts presented by the courses.
Allahyani (2012)	The Relationship between Cognitive Dissonance and Decision-Making Styles in a Sample of Female Students at the University of Umm Al Qura.	Negative relation of statistical function in the external dimension and the rational style. The results also showed a positive correlation of statistical function between the Cognitive Dissonance and in the external-social dimension and the independent style.
Al Otaibi (2012)	The Relationship between Cognitive Dissonance and the Big-5 Factors Model of the Personality and the Academic Achievement in a Sample of Female Students at the University of Umm Al-Qura	An inverse relationship between the overall Cognitive Dissonance and two of the dissonance dimensions (internal personal & external social) and two of the Big Five factors; dimensions (conscientiousness and extroversion).
Glatz Stattin and Kerr(2012)	A Test of Cognitive Dissonance Theory to Explain Parents' Reactions to Youths' Alcohol Intoxication.	Eliminate the dissonance between their strict attitudes against youth drinking and their knowledge of their own youths' drinking, parents changed their attitudes and became more lenient.
Linenberger and Bretz (2012)	Generating Cognitive Dissonance in Student Interviews through Multiple Representations.	Technique with multiple representations to generate Cognitive Dissonance within students in order to uncover misconceptions of enzyme-substrate interactions.
Liu (2008)	Expectation matters: The effect of Cognitive Dissonance on Self-Esteem Academic Disengagement,	Academic dissonance did have effects on the motivation of studying.



Author & year	Variables	Result
	Achievement and associated emotions.	
Alford (2010)	Cognitive Dissonance Experienced by Secondary General Education Teachers When Teaching Inclusion Classes	Meaningful professional development for teaching in the inclusion setting that will produce optimal results for students.
Becker Smith and Ciao (2006)	Peer-Facilitated Eating Disorder Prevention: A Randomized Effectiveness Trial of Cognitive Dissonance and Media Advocacy.	A semi mandatory format does not reduce effectiveness.
Dechawatanapaisal and Siengthai (2006)	The Impact of Cognitive Dissonance on Learning Work Behavior.	The "normative perspective" of organizational learning that the effective learning process can be driven by some underlying factors including Cognitive Dissonance and HR practices.
Ruiz and Tanaka (2001)	the relationship between cognitive dissonance and helping behavior	Cognitive Dissonance heightened the disposition to help; the dissonant women exposed to mood neutral tape recording were found to be the most helpful in gathering the computer cards.

### Theoretical Overview of Self Compassion

This part is explains the development of Self Compassion.

#### Etymology of Self Compassion

In these first decades of the twenty-first century, compassion and Self Compassion are increasingly being researched and applied as active, empirically supported process variables in psychotherapy. This might not seem surprising, given that compassion has been at the center of contemplative practices for emotional

healing for at least 2,600 years. Shakyamuni, or Gautama Buddha, taught that cultivating compassion could transform the mind, and his philosophical descendants have built upon his observations and insights ever since. Furthermore, most of the world's major religions have specific prayers and imagery practices that involve the experience of compassion as a source of emotional comfort or redemption. In terms of psychotherapy, for some sixty years, starting with the work of Carl Rogers (1965), it has been proposed that empathy is central to psychotherapy. Since Rogers's work, different therapies have explored the value of warmth and empathy in the psychotherapeutic relationship (Gilbert & Leahy, 2007; Greenberg & Paivio, 1997).

Gilbert (2009a) defines the essence of compassion as “a basic kindness, with deep awareness of the suffering of oneself and of other living things, coupled with the wish and effort to relieve it” (p. 13). This definition involves two central dimensions of compassion. The first is known as the psychology of engagement and involves sensitivity to and awareness of the presence of suffering and its causes. The second dimension is known as the psychology of alleviation and constitutes both the motivation and the commitment to take actual steps to alleviate the suffering we encounter (Gilbert & Choden, 2013). Here we will briefly conceptualize this definition of compassion and its two dimensions in terms of acceptance and commitment processes, and in accord with functional contextual assumptions.

Several psychologists have tried to introduce alternative conceptualizations of a healthy attitude and relationship to oneself, such as self respect (Seligman, 1995), self-efficacy (Bandura, 1990), true self-esteem (Deci & Ryan, 1995), or

personal character (Damon, 1995). Another useful alternative may be found by drawing upon an important concept in Buddhist philosophy—selfcompassion (Bennett-Goleman, 2001; Brown, 1999; Hanh, 1997; Kornfield, 1993; Rosenberg, 2000; Rutledge, 1997; Salzberg, 1997; Wallace, 1999). While the concept of Self Compassion has existed in Eastern philosophical thought for centuries, it is a relatively new concept for Western psychology (though it is related to other Western psychological concepts, a point that will be taken up shortly). The past decade has seen an increasing interchange of ideas between Buddhism and psychology (Epstein, 1995; Molino, 1998; Nisker, 1998; Rubin, 1996; Watson, Batchelor, & Claxton, 1999), broadening our existing understanding of mental well-being and leading to new ways of researching and treating mental disorders (e.g., Kabat-Zinn's mindfulness-based stress-reduction programs; Kabat-Zinn & Chapman-Waldrop, 1988; Kabat-Zinn, Massion, Kristeller & Peterson, 1992).

### **Self Compassion : Core concept**

Self Compassion is defined as a healthy sense of self-acceptance, indicates the acceptance and adoption of unpleasant aspects of life and self and include caring and compassionating of self in the face of Perceived difficulties and failures. Self Compassion means emotional acceptance of what happens in a moment in human. When talking about compassionate of people toward each other, this subject is considered evident. But about Self Compassion concept, it is different. At first glance, Self Compassion and compassion for others seems a little more complicated. In fact, it is no difference between Selfcompassion and compassion for others (Germer, 2009).

According to Neff (2003) Self Compassion involves interaction among the following three components that can be useful for:

A) Self-kindness vs. self-judgment (which tend to have a vision for their care compared to judgments about their traumatic judgment).

B) Common humanity versus isolation (feeling that sometimes, all men may fail and because of this failure should not be discontinued relationships with others).

C) Mindfulness versus over identification (being aware of the current experiences, in a way that, it would not be under the extreme influence of certain emotions), (Raes, 2010).

Components of Self Compassion is represented in the following figure:4

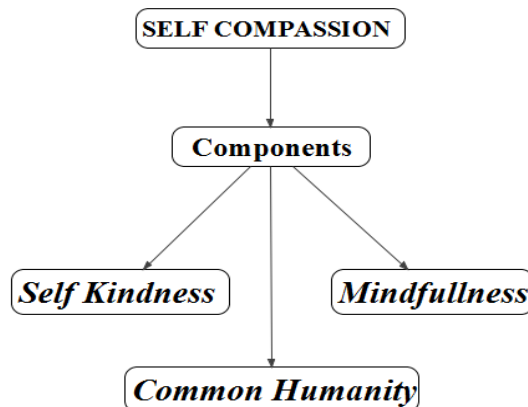


Figure : 4 , Components of Self Compassion

Self Compassion requires that when a person suffer, fail, or feel inadequate, rather than flagellating himself with self-criticism, and be kind, warm and understanding toward himself (Neff, 2010). Common humanity involves

recognizing that the human condition is imperfect. With Self Compassion, however, we take the stance of a compassionate “other” toward ourselves, allowing us to adopt a broader perspective on ourselves and our lives. When individuals feel compassion for others, they allow themselves to be touched by another’s experience of suffering. When this occurs, feelings of kindness and caring for the person’s welfare spontaneously arise. So that when faced with difficult life experiences instead of not reaching to pick their ideal angry, they tend to be treated with kindness (Sbarra et al., 2012).

### **Interrelationship with other variables**

One of the variables associated with Self Compassion studies have been considered recently, is procrastination. For example Neff et al. (2005) suggest that Self Compassion may be effective in coping and adaptive behavior in the field of education which is required to enjoy learning. Procrastination as a common and serious problem, affect not only on mental health but also physical health and well-being (Siros, 2007). Results showed that this structure explain cognitive, emotional and motivational factors (Rebetz et al., 2015) and has adverse effects on human performance (De Paola and Scoppa, 2014). In fact, procrastination is described as lack of self regulation and desire to delay or avoid doing unnecessary assignments to be completed. Procrastination is a barrier to academic achievement, as with stress and negative consequences in the lives of students, led to reduce the quality and quantity of educational achievement (Akinsola et al., 2007; Tan et al., 2008; Meirav and Goroshit, 2012).

Studies showed that, Self Compassion is associated with procrastination. Williams, Stark and Foster (2008) studied the impact of Self Compassion on procrastination. Results indicate that procrastination is largely associated with lower levels of Self Compassion. Alexander (2011), by studying the impact of Self Compassion on procrastination showed that Self Compassion has a Moderator role on procrastination scores. The results of Siros research (2013) showed that Self Compassion is a moderator between procrastination and stress. Depression with symptoms such as low self-esteem, loss of motivation, difficulty in concentrating and making decisions, fear of failure, humiliation and low scores, has an important role on procrastination. Depression is the most common mood disorder and major depression and emotional disorders in century. Depression is a psychological response to biological stress of life (Mehryar, 2003). This disorder affects important aspects of people's lives, and includes: depressed mood, loss of interest and pleasure, nutrition, and sleep problems, difficulty concentrating and making decisions, and decreased psychomotor activity (Psychiatric Association of America, 2013). So depression can be related to procrastination (Beck et al., 1998; Steel, 2007). Karami (2009) investigated the relationship between depression and procrastination and showed that the procrastination of students is related with depression.

Evidences show that people who have higher Self Compassion, experience less depression and rumination challenging tasks (Neff, 2003). Pauley and Mc Pherson (2010) studied experience and sense of compassion and Self Compassion in patients with depression, the results of this study showed that participants act with

kindness and compassion by having two main features, they reported that selfcompassion in relation to their experiences is important and useful. Although participants believed that Self Compassion was important in relating to their experiences, it is difficult for them because of their perception of the experience of illness and mental disorder. This has a negative effect on their ability to Self Compassion. Raes (2010), states that selfcompassion is predictive for depression, anxiety and rumination. In another study, Raes (2011) studied selfcompassion effect on depressive symptoms in a nonclinical sample. The results showed that selfcompassion as a potentially important factor for the protection and conservation problems of depression. Yamaguchi et al. (2014) in studying the effect of selfcontrol thoughts, self-critical and Self Compassion among 1,200 graduates and 420 students at Kyoto University in Japan found that Self Compassion is along with less severe depressive symptoms Brown et al. (2014) studied the role of Self Compassion in daily functioning and depressive symptoms of 206 women 40 to 60 years old, who had recently uncomfortable experience.

The results showed that Self Compassion has a direct effect on depressive symptoms. Basharpour and Isazadegan (2012) found that Self Compassion is negatively correlated with depression and 16 percent of the variance is expected in depression in non-clinical samples and students through Self Compassion components. So, Self Compassion requires that, when a person damage, failure or feel incompetence stopped the suffering endured rather than ignore or criticized, would be kind to himself understand himself (Neff, 2010). The evidence shows that Self Compassion is a positive force and positive human qualities such as kindness to

his generosity, dignity, empathy and a sense of unity with others to bring and helps when dealing with difficult people to hope and meaning in their life and loving life again (Neff, 2003). By considering the strong components of cognitive selfcompassion and the fact that procrastination affect, self-distraction, impulsivity, self-control and organizational behavior and foster individuals as passive lazy, passively led to growth tend to delay in them (Mohammad Amini, 2013) and the lack of a full study on the in country, the importance of relationship between procrastination and depression is necessary. This study aimed to investigate the role of selfcompassion and depression in students is predicted procrastination.

### **Cutting edge view of Self Compassion**

The latest view of Self Compassion developed by Neff. Self Compassion has received increased research attention lately, with over 200 journal articles and dissertations examining the topic since 2003, the year that the first two articles defining and measuring Self Compassion were published (Neff, 2003a; Neff, 2003b). So what is Self Compassion exactly? In order to better understand what Self Compassion is, it is useful to first consider what it means to feel compassion more generally.

From the Buddhist point of view, compassion is given to our own as well as to others' suffering. We include ourselves in the circle of compassion because to do otherwise would construct a false sense of separate self (Salzberg, 1997). Compassion involves sensitivity to the experience of suffering, coupled with a deep desire to alleviate that suffering (Goetz, Keltner, & Simon-Thomas, 2010). This means that in order to experience compassion, you must first acknowledge the



presence of pain. Rather than rushing past that homeless woman as you're walking down the busy street, for example, you must actually stop to consider how difficult her life must be. This involves pausing, stepping out of your usual frame of reference, and viewing the world from the vantage point of another. The moment you see the woman as an actual human being who is in pain, your heart resonates with hers (compassion literally means "to suffer with"). Instead of ignoring her, you find that you're moved by her situation, and feel the urge to help in some way. And rather than looking down at the woman or believing that she is somehow separate and disconnected from yourself, you realize that all human beings suffer and are in need of compassion – "there but for fortune go I." Self Compassion is simply compassion directed inward, relating to ourselves as the object of care and concern when faced with the experience of suffering (Neff, 2003a).

### **The Three Components of Self Compassion**

Drawing on the writings of various Buddhist teachers (Brach, 2003; Kornfield, 1993; Salzberg 1997), Neff (2003b) has operationalized Self Compassion as consisting of three main elements: kindness, common humanity, and mindfulness. These components combine and mutually interact to create a Self Compassionate frame of mind. Self Compassion is relevant when considering personal inadequacies, mistakes, and failures, as well as when struggling with more general life situations that cause us mental, emotional, or physical pain.

**Self-kindness**

Western culture places great emphasis on being kind to others, but not so much to our selves. When we make a mistake or fail in some way, we often use harsh, critical internal language – “You’re so stupid and lazy, I’m ashamed of you!” We would be unlikely to say such things to a close friend, or even a stranger for that matter. When asked directly, most people report that they are kinder to others than themselves (Neff, 2003a), and it is not unusual to encounter extremely kind and compassionate people who continually beat themselves up. And even when our problems stem from forces beyond our control, such as losing our job or getting in a car accident, we often don’t give ourselves the sympathy we would give to a friend in the same situation. With self-kindness, however, we are supportive and understanding toward ourselves. Our inner dialogues are gentle and encouraging rather than harsh and belittling. This means that instead of continually punishing ourselves for not being good enough, we kindly acknowledge that we’re doing the best we can. Similarly, when external life circumstances are challenging and difficult to bear, we soothe and nurture ourselves. We are moved by our own distress so that warm feelings and the desire to ameliorate our suffering emerge.

**Common humanity**

The sense of common humanity central to Self Compassion involves recognizing that everyone fails, makes mistakes, and gets it wrong sometimes. We do not always get what we want and are often disappointed – either in ourselves or in our life circumstances. This is part of the human experience, a basic fact of life shared with everyone else on the planet. We are not alone in our imperfection.

Rather, our imperfections are what make us card-carrying members of the human race. Often, however, we feel isolated and cut off from others when considering our struggles and failures, irrationally feeling that it's only "ME" who is having such a hard time of it. We think that somehow we are abnormal, that something has gone wrong, and we forget that falling flat on our face now and then actually is normal. This sort of tunnel vision makes us feel alone and isolated, making our suffering even worse (Neff, 2011). With Self Compassion, however, we take the stance of a compassionate "other" toward ourselves, allowing us to take a broader perspective on our selves and our lives. By remembering the shared human experience, we feel less isolated when we are in pain. For this reason, selfcompassion is quite distinct from self-pity. Self-pity is a "woe is me" attitude in which people become immersed in their own problems and forget that others have similar problems. Selfcompassion recognizes that we all suffer, and therefore fosters a connected mindset that is inclusive of others.

### **Mindfulness**

Self Compassion entails mindful awareness of our negative thoughts and emotions so that they are approached with balance and equanimity. When we are mindful, we are experientially open to the reality of the present moment without judgment, avoidance, or repression (Bishop et al., 2004). Why is mindfulness an essential component of Self Compassion? First, we must be willing to turn toward and experience our painful thoughts and emotions in order to embrace ourselves with compassion. While it might seem that our pain is blindingly obvious, many people do not acknowledge how much pain they're in, especially when that pain

stems from their own inner self-critic. Or when confronted with life challenges, people often get so lost in problem-solving mode that they do not pause to consider how hard it is in the moment.

Mindfulness of our negative thoughts and feelings means that we do not become “overidentified” (Neff, 2003b) with them, getting caught up and swept away by our aversive reactions (Bishop et al., 2004). Rather than confusing our negative self-concepts with our actual selves, we can recognize that our thoughts and feelings are just that – thoughts and feelings – helping us to drop our unquestioning belief in the storyline of our inadequate, worthless selves. Neff (2003b) proposes that the three components of Self Compassion are conceptually distinct, they also overlap and tend to engender one another. For instance, the accepting stance of mindfulness helps to lessen self-judgment and provide insight needed to recognize our common humanity. Similarly, self-kindness lessens the impact of negative emotional experiences, making it easier to be mindful of them. And realizing that suffering and personal failures are shared with others lessens the degree of self-blame, while also helping to quell the process of over identification. Thus, Self Compassion is best understood as a single experience composed of interacting parts

## **Measurements**

### **The Self Compassion Scale**

The Self Compassion Scale (SCS) was designed by Neff (2003b) to measure selfcompassion in individuals. The SCS has been used in a number of studies within the past decade amid developments in the applications of meditation and

mindfulness in western psychology. The result has been a growing interest in the topic of Self Compassion and its relationship to psychological functioning and phenomena. Since 2003, scores of studies have used the SCS as a measure of Self Compassion with respect to a variety of psychological phenomena, measures, and tests.. The SCS is informed by Buddhist psychology and understanding of the self. This is evident in the phrasing of items on the scale and the structure of the measure. Furthermore, during its development factor analysis dictated that it be divided into six subscales including: *self-kindness*, *self-judgment*, *common humanity*, *isolation*, *mindfulness*, and *over-identification* (Neff, 2003b).

Thus, the six subscales are the result of both theoretical and empirical findings. A total SCS score and subscale scores can be derived from the measure providing detail regarding the construct and its theoretical makeup. Furthermore, these subscales offer clinicians more precise attributes of the construct to be measured. The inventory offers flexibility and breadth in its utilization. Research findings regarding the SCS subscales illustrate this notion. Empirical use of individual SCS subscales has yielded some interesting results.

### **Studies Related to Self Compassion**

Fontana, Fry and Cramer ( 2017 ) conducted a study on Exploring the Relationship between Athletes' Perceptions of the Motivational Climate to Their Compassion, Self Compassion, Shame, and Pride in Adult Recreational Sport. In this study examine the relationships between athletes' perceptions of the motivational climate (caring, task-, and ego-involving) to their levels of compassion, Self Compassion, pride, and shame in a recreational sport setting. 164 Athletes in a

competitive Wiffle Ball tournament completed a survey. A canonical correlation analysis revealed one significant function indicating that athletes' perceptions of a caring and task-involving motivational climate were associated with higher levels of authentic pride and lower levels of hubristic pride. Results suggest adult recreational sport participants may benefit from experiencing a positive and supportive team climate.

Ozdemir and Seef (2017) Conducted a study on Examining the Factors of Self Compassion Scale with Canonical Commonality Analysis: Syrian Sample. The study aims to examine the psychological structure of Self Compassion and to determine the relationship between the sub-dimensions (or factors) of the Self Compassion-scale and the contribution of each factor to the construct. The contribution of this study is assumed to be substantial since it examines the relationship between the several factors of Self Compassion and determines the unique and common contribution of each factor to the Self Compassion construct. This study employed a relational survey method. A purposive sampling technique was used in order to determine the study group which consisted of 593 university students from Damascus University, Syria. Findings of the study based on canonical correlation analysis "mindfulness" was the most important among the positive factors set, while "over-identified" was the most important among the negative factors set. On the other hand, common variance of "common-humanity" and "self-kindness" was quite large, indicating multi co linearity between these two factors. Additionally, the contribution of "common humanity" was negligibly small;

therefore, it can be excluded from the model with a small sacrifice in explained variance.

Arslan (2016) studied Interpersonal Problem Solving, Self Compassion and Personality Traits in University Students. The aim of this study was to investigate interpersonal problem solving in terms of Self Compassion and personality traits. 570 students (274 females and 296 males) who participated in the research voluntarily. The mean age of the participants was 21.54 years (between 17-32 years old) with a standard deviation of 2.68 years. Data were collected using Interpersonal Problem Solving Inventory, Adjective Based Personality Scale, Self Compassion Scale and personal information form. To analyze the data, Pearson conduct moment correlations, and multiple hierarchical regression analysis technique were used. As a result of the study, it was found that there was a significant negative relationship between approaching problems in a negative way and Self Compassion, extraversion, openness to experiences, agreeableness and responsibility. It was found that there was a significant negative relationship between lack of self-confidence and Self Compassion, extraversion, openness to experiences, agreeableness and responsibility. It was found that there was a significant negative relationship between unwillingness to take responsibility and Self Compassion, extraversion, openness to experiences, agreeableness and responsibility. Also it was found that there was a positive relationship between constructive problem solving and Self Compassion, extraversion, openness to experiences, agreeableness and responsibility.

Bengtsson, Söderström and Terjestam (2016) studied the Structure and Development of Dispositional Compassion in Early Adolescence. Compassion may be directed at a broad range of targets. The present study investigated interrelations among other-directed compassion, Self Compassion, and environmental compassion in early adolescence (age = 12-14; n = 256) and examined how the different manifestations of compassion related to age and gender during this age period. Dispositional compassion directed at different targets was assessed through self-reports and peer nominations. Structural equation modeling (SEM) analysis supported a model that portrayed dispositional compassion toward self, others, and the environment as three distinct but interrelated factors. Other-directed compassion and environmental compassion were higher in girls than in boys. There was a decrease in all forms of compassion with age. The drop in Self Compassion was linked to negative self-perceptions in 13- and 14-year-old girls. The roles of experience and cognitive factors in linking different forms of dispositional compassion are discussed.

Mehr and Adams (2016) studied Self Compassion as a Mediator of Maladaptive Perfectionism and Depressive Symptoms in College Students. The purpose of the study was to examine the relationships among maladaptive perfectionism, Self Compassion, and depressive symptoms in college students. It was hypothesized that Self Compassion would mediate the relationship between maladaptive perfectionism and depressive symptoms, with maladaptive perfectionism related to lower levels of Self Compassion, and lower levels of Self Compassion related to greater endorsement of depressive symptoms. Results



supported partial mediation, indicating that Self Compassion partially accounts for the relationship between maladaptive perfectionism and depressive symptoms. Implications for practice and research are discussed.

Aydin (2015) conducted a study on Identifying the Relationship of Teacher Candidates' Humor Styles with Anxiety and Self Compassion Levels. This study aims to identify the relationship between teacher candidates' humor styles, anxiety, and Self Compassion levels, and to investigate these levels from the perspective of gender and grade variables. In this research study, a multiple regression analysis was applied in order to explore the relationship between candidate teachers' humor styles and their anxiety as well as Self Compassion levels. The sample of the study is comprised of a total of 1008 students studying in the following departments of the Atatürk Education Faculty at Marmara University: early childhood education, primary school teaching, psychological counseling and guidance, and special education. As data collection instruments, the Self Compassion Scale, the Humor Styles Questionnaire, and the State and Trait Anxiety Scale were used. The findings of the study, the t values calculated to find the significance of the regression coefficients indicate that isolation and self-judgment sub-dimensions have significant predictiveness for affiliated humor. Self-kindness, common humanity, isolation, and over-identification sub-dimensions have significant predictiveness for self-enhancing humor. It is also suggested that if some aspects of such programs are found to be positive in such studies, they should be incorporated into the optional courses or practice-based applications in the programs of education faculties.

Sahranç (2015) studied Self Compassion as a Predictor of Psychological Entitlement in Turkish University Students. The purpose of this study is to examine the predictive role of Self Compassion on psychological entitlement. Participants were 331 university students (205 women, 126 men, M age = 20.5 years.). In this study, the Self Compassion Scale and the Psychological Entitlement Scale were used to assess Self Compassion and psychological entitlement. The relationships between Self Compassion and psychological entitlement were examined using correlation analysis and multiple regression analysis. Data were analyzed by SPSS 11.5. In Correlation analysis, mindfulness, common humanity, and self-kindness factors of Self Compassion were found negatively and over-identification, isolation, and self-judgment factors of Self Compassion were found positively related to psychological entitlement. According to regression results, psychological entitlement was predicted positively by over-identification, isolation, and self-judgment. Further mindfulness and self-kindness predicted psychological entitlement in a negative way. Self Compassion has explained 28% of the variance in psychological entitlement.

Gottlieb (2014) studied Self-Awareness, Self Compassion, and Cultural Competence: Implications for Social Work Education and Practice. The objective of the present study was to examine the relationships among the constructs of self-awareness, Self Compassion, and cultural competence within the NYU MSW student population, as measured by three separate scales. An anonymous Qualtrics survey containing the three scales and five demographic questions was sent via university e-mail to the entire student body, with a 33% rate of return (N = 376).

Structural Equation Modeling (SEM) through AMOS 20 and SPSS 21 regression resulted in identifying a positive correlation between Self Compassion and self-awareness, a moderating effect of Self Compassion on the relationship between self-awareness and cultural competence, and a positive correlation between Self Compassion and cultural competence. A correlative relationship between self-awareness and cultural competence was not identified. Implications for and limitations of the study are discussed, with recommendations of directions for future theory, pedagogy, practice, and research.

Aydin and Kuzu (2013) conducted a study on Teacher Candidates' Attitudes towards Inclusion Education and Comparison of Self Compassion Levels. This study has been figured for the purpose of comparing attitudes of teacher candidates toward inclusion education in terms of several variables and Self Compassion levels. Sampling of the study consists of Grade 4 students of (547) Marmara University Ataturk, Faculty of Education and Faculty of Science and Letters. In this study, a personnel information questionnaire is used to collect the demographic data of the participants. Also, to measure participants' attitudes towards inclusion "Attitudes" toward Mainstreaming Scale is used. Besides, to measure Self Compassion levels, a SCS (Self Compassion Scale) developed by Neff (2003a) and adopted to Turkish by U. Akin, A. Akin, and Abaci (2007) is used. Self Compassion levels were at medium levels. It has been found that Self Compassion total scores and sub-dimension scores affected attitudes towards to inclusion education.

Saricaoglu and Arslan (2013) conducted a study on An Investigation into Psychological Well-Being Levels of Higher Education Students with Respect to

**Personality Traits and Self Compassion** The purpose of this study is to investigate the correlation between psychological well-being, personal traits and Self Compassion levels, and to find out whether personal traits and Self Compassion level significantly predict psychological well-being. The study sample is composed of 232 (36.5%) students from Education Faculty of Selçuk University, 195 (30.7%) students from Cumhuriyet University, 209 (32.9%) students from Ahi Evran University. There were totally 636 randomly selected students in the study group, 405 of them (%67.5) being females and 231 of them (32.5%) being males. The data were collected using Psychological Well-being Scale, Adjective Based Personality Scale, Self Compassion Scale and personal information form. To analyze the data, Pearson conduct moment correlations, and stepwise regression analysis technique were used. It was seen that there was a significant positive correlation between all subscales of psychological well-being and Self Compassion. There was a negative correlation between psychological well-being and neuroticism and a positive correlation between psychological well-being and other personality traits, whereas no significant correlation was found between autonomy and agreeableness. Personal traits and Self Compassion significantly predict all subscales of psychological well-being. It was found that the most significant predictor of positive relations with others as a subscale of psychological well-being is extroversion; that the most prominent predictor of autonomy, environmental mastery, and purpose in life and self-acceptance subscales is Self Compassion, and that the variable which predicts the subscale of personal growth best is openness to experience as personal traits.

Wong and Mak (2013) conducted a study on Differentiating the Role of Three Self Compassion Components in Buffering Cognitive-Personality Vulnerability to Depression among Chinese in Hong Kong. Research shows that sociotropy, autonomy, and self-criticism are cognitive-personality vulnerability styles contributing significantly to the development of depression symptoms, but little is known about the factors that may protect sociotropic, autonomous, and self-critical individuals against mental health problems. The present study examined Self Compassion components (i.e., self-kindness, common humanity, and mindfulness) as potential moderators to protect these individuals from developing depression. On the basis of survey data from 345 Chinese adults in Hong Kong, the relationships between cognitive-personality vulnerability styles, Self Compassion components, and depression were examined. The results of the present study show that when the effect of gender and the two other Self Compassion components were controlled, self-kindness and mindfulness could moderate the association between autonomy and depression, and the association between self-criticism and depression, while common humanity could moderate the association between self-criticism and depression. Unexpectedly, interaction between sociotropy and mindfulness was found, with the association between sociotropy and depression being stronger among individuals with high mindfulness than it was with individuals with low mindfulness. These results suggest the differentiating role of the three Self Compassion components in buffering autonomous and self-critical individuals from depression. Applications of Self Compassion and the hypothesized moderation model in future psychological interventions are discussed.

Akin (2012) Conducted a study on Self Compassion and Automatic Thoughts. The aim of this research is to examine the relationships between Self Compassion and automatic thoughts. Participants were 299 university students. In this study, the Self Compassion Scale and the Automatic Thoughts Questionnaire were used. The relationships between Self Compassion and automatic thoughts were examined using correlation analysis and the hypothesis model was tested through structural equation modeling. In correlation analysis, self-kindness, common humanity, and mindfulness factors of Self Compassion were found negatively related to automatic thoughts. On the other hand, self-judgment, isolation, and over-identification factors of Self Compassion were found positively correlated to automatic thoughts. According to path analysis results, automatic thoughts were predicted negatively by self-kindness, common humanity, and mindfulness. On the other hand, self-judgment and over-identification predicted automatic thoughts in a positive way. However, the path from isolation to automatic thoughts wasn't significant. Results were discussed in the light of the related literature.

Newsome, Waldo and Gruszka (2012) studied Mindfulness Group Work: Preventing Stress and Increasing Self Compassion among Helping Professionals in Training. This study examined the effects a 6-week mindfulness group had on 31 college students who were intending to enter helping professions (e.g., nursing, social work, counseling, psychology, and teaching). Group activities included meditation, yoga, a body scan exercise, and qi gong. The group members completed the Perceived Stress Scale, the Mindfulness Attention Awareness Scale, and the Self Compassion Scale at pre-pre, pre, post, and follow-up intervals. Perceived stress

significantly decreased, and mindfulness and Self Compassion significantly increased in response to the group. Group members' comments on their experience are reported. Implications for future research and practice are explored.

Seo (2012) studied *The Role of Self Compassion and Emotional Approach Coping in the Relationship between Maladaptive Perfectionism and Psychological Distress among East Asian International Students*. This study investigated the mediating and moderating roles of Self Compassion and emotional approach coping in the relationship between maladaptive perfectionism and psychological distress among East Asian international students. Data were collected through an online survey completed by 255 East Asian international students in a large public Midwestern university. It was hypothesized that Self Compassion and emotional approach coping would predict psychological distress, and would both mediate and moderate the relationship between maladaptive perfectionism and psychological distress among the sample of East Asian international students. Hierarchical regression analyses showed that maladaptive perfectionism and Self Compassion were strong predictors for depression and anxiety for the sample of East Asian international students, while emotional approach coping did not contribute unique variance in the prediction of depression and anxiety. An exploratory factor analysis for the Self Compassion Scale yielded two factors: the Self Compassion factor (i.e., Self-Kindness, Common Humanity, and Mindfulness), and the Self-Disrespect factor (i.e., Self-Judgment, Isolation, and Over-Identification). Additionally, emotional approach coping was not significantly correlated with psychological distress; thus, emotional approach coping did not serve as a mediator or a moderator.

Taken together, the original model was revised to incorporate two Self Compassion factors as separate mediators in the relationship between maladaptive perfectionism and psychological distress, with Emotional Approach Coping as an exogenous variable. Results from Structural Equational Modeling (SEM) showed that Self-Disrespect partially mediated between maladaptive perfectionism and psychological distress. The finding indicates that East Asian international students with maladaptive perfectionism can alleviate psychological distress. They can do this by being less self-judgmental and socially isolated, and by not over-identifying with their own negative thoughts and emotions, which develops Self Compassion. In addition, Self-Disrespect moderated the relationship between maladaptive perfectionism and psychological distress, indicating that East Asian international students with maladaptive perfectionism seem to suffer from greater psychological distress when experiencing high levels of Self-Disrespect (i.e., being self-judgmental, isolated, and over-identifying). Implications for counseling and future research directions are discussed

Iskender (2011) studied *The Influence of Self Compassion on Academic Procrastination and Dysfunctional Attitudes*. In the present study, aims were (1) to determine gender differences in Self Compassion, Academic Procrastination, and dysfunctional attitudes and (2) to examine the relationships between Self Compassion, Academic Procrastination, and dysfunctional attitudes. Participants were 251 university students who completed a questionnaire package that included the Self Compassion Scale, the Academic Procrastination Scale, and the Dysfunctional Attitudes Scale. Results showed that there were no significant gender



differences in Self Compassion, Academic Procrastination, and dysfunctional attitudes. In correlation analysis, Self Compassion correlated positively with Academic Procrastination and negatively with dysfunctional attitudes. Similarly there were no significant relationships between Academic Procrastination and dysfunctional attitudes

Iskender and Ahmet (2011) conducted a study on Self Compassion and Internet Addiction. The purpose of this research is to examine the relationship of Self Compassion and internet addiction. Participants were 261 university students who completed a questionnaire package that included the Self Compassion Scale and the Online Cognition Scale. The hypothesis model was tested through structural equation modeling. In correlation analysis, self-kindness, common humanity, and mindfulness factors of Self Compassion were found negatively related to internet addiction. On the other hand, self-judgment, isolation, and over-identification factors of Self Compassion were found positively correlated to internet addiction. According to path analysis results, internet addiction was predicted negatively by self-kindness and mindfulness. Further self-judgment, isolation, and over-identification predicted internet addiction in a positive way. Results were discussed in the light of literature.

Raque-Bogdan, Ericson, Jackson, Martin and Bryan (2011) studied Attachment and Mental and Physical Health: Self Compassion and Mattering as Mediators. Research shows a strong link between adult attachment and mental and physical health, but little is known about the mechanisms that underlie these relationships. The present study examined Self Compassion and mattering, two

constructs from positive psychology literature, as potential mediators. Using survey data from a sample of 208 college students, relationships among attachment, Self Compassion, mattering, and functional health were explored. Correlational analyses indicated that attachment anxiety and avoidance were strongly related to the mental health component of functional health. Mediation analyses indicated that mattering and Self Compassion mediated the relationships between attachment orientation (i.e., levels of avoidance and anxiety) and mental health. These findings suggest that individuals' abilities to be kind toward themselves and their sense of belonging and being important to others are pathways through which attachment orientation relates to mental health.

Tanaka, Wekerle, Schmuck, Paglia-Boak and Angela (2011) conducted a study on *The Linkages among Childhood Maltreatment, Adolescent Mental Health, and Self Compassion in Child Welfare Adolescents*. Objectives: Childhood maltreatment is a robust risk factor for poor physical and mental health. Child welfare youths represent a high-risk group, given the greater likelihood of severe or multiple types of maltreatment. This study examined the relationship between childhood maltreatment and Self Compassion--a concept of positive acceptance of self. While not applied previously to a child welfare sample, Self Compassion may be of value in understanding impairment among maltreatment victims. This may be most pertinent in adolescence and young adulthood, when self-identity is a focal developmental process. Methods: The present sample was drawn from the *Maltreatment and Adolescent Pathways (MAP) Longitudinal Study*, which followed randomly selected adolescents receiving child protection services across two years

within an urban catchment area. Child maltreatment was assessed at baseline using the Childhood Trauma Questionnaire. Mental health, substance and alcohol use problems, suicide attempt, and Self Compassion were assessed at the two-year follow-up point. There were 117 youths, aged 16-20 years (45.3% males) who completed the Self Compassion scale (Neff, 2003). Bivariate correlations were computed between adolescent Self Compassion and each form of self-reported maltreatment (physical abuse, sexual abuse, emotional abuse, emotional neglect, and physical neglect). Finally, hierarchical, stepwise regression was used to examine unique contributions of child maltreatment subtypes in predicting adolescent Self Compassion, as well as maltreatment-related impairment. Results: Higher childhood emotional abuse, emotional neglect, and physical abuse were associated with lower Self Compassion. Controlling for age and gender, emotional abuse was significantly associated with reduced Self Compassion, even when the effects of emotional neglect and physical abuse were taken into account. Youths with low Self Compassion were more likely to have psychological distress, problem alcohol use, and report a serious suicide attempt, as compared with those with high Self Compassion. A number of maltreatment-related areas of impairment, identified by screening instruments, were significantly associated with lower Self Compassion. Conclusion: Self Compassion may be a fruitful aspect of research to pursue in an effort to better understand the impact of childhood emotional abuse on adolescent functioning, particularly considering the under-researched group of those receiving child protective services.

Akin (2010) studied Self Compassion and Interpersonal Cognitive Distortions. The purpose of this study is to examine the relationships between Self Compassion and interpersonal cognitive distortions. Participants were 338 university students. In this study, the Self Compassion Scale and the Interpersonal Cognitive Distortions Scale were used. The relationships between Self Compassion and interpersonal cognitive distortions were examined using correlation analysis and the hypothesis model was tested through structural equation modeling. In correlation analysis, self-kindness, common humanity, and mindfulness factors of Self Compassion were found negatively and self-judgment, isolation, and over-identification factors of Self Compassion were found positively related to interpersonal cognitive distortions. According to path analysis results, interpersonal cognitive distortions were predicted negatively by self-kindness, common humanity, and mindfulness. Further self-judgment, isolation, and over-identification predicted interpersonal cognitive distortions in a positive way. Results were discussed in the light of the related literature.

Newsome (2010) studied Effects of a Mindfulness Course on Helping Professionals in Training: Examining Levels of Perceived Stress, Mindfulness, and Self Compassion. This study focused on the effects of a six-week mindfulness course on college students intending to enter a helping profession (e.g. nursing, social work, counseling, psychology, and teaching). The 31 participants ranged in age from 21 to 54 with a mean age of 29.26 years. There were 27 females and 4 males. The participants enrolled in a one to three credit course on mindfulness that included six weekly sessions of mindfulness training. The training utilized

meditation, yoga, a body scan exercise, and qi gong. The participants completed the Perceived Stress Scale, the Mindful Awareness Attention Scale, and the Self Compassion Scale. Perceived stress significantly decreased between pre-intervention and post-intervention and stayed stable between post-intervention and follow-up. Mindfulness significantly increased between pre-intervention and post-intervention and significantly increased between post-intervention and follow-up. Self Compassion significantly increased between pre-intervention and post-intervention and stayed stable between post-intervention and follow-up. Implications for future research and practice are explored.

Ying (2009) studied Contribution of Self Compassion to Competence and Mental Health in Social Work Students. This study examined the potential contribution of Self Compassion to perceived competence and mental health in master's of social work students (N=65). It was hypothesized that the components of Self Compassion (i.e., mindfulness, common humanity, self-kindness, over identification, isolation, and self-judgment) would impact perceived competence (sense of coherence), which in turn would mediate mental health (depressive symptom level). Students completed the Self Compassion Scale, the Sense of Coherence Questionnaire, and the California Psychological Inventory-Depression Scale. Results showed that over identification directly and indirectly (as mediated by decreased coherence) affected depressive symptom level. Implications for social work education are discussed.

Author & year	Variables	Result
Fontana, Fry and Cramer (2017)	Exploring the Relationship between Athletes' Perceptions of the Motivational Climate to Their Compassion, Self Compassion, Shame, and Pride in Adult Recreational Sport	Recreational sport participants may benefit from experiencing a positive and supportive team climate.
Ozdemir and Seef (2017)	Examining the Factors of Self Compassion Scale with Canonical Commonality Analysis: Syrian Sample	Common variance of "common-humanity" and "self-kindness" was quite large, indicating multi co linearity between these two factors
Arslan (2016)	Interpersonal Problem Solving, Self Compassion and Personality Traits in University Students	Significant negative relationship between approaching problems in a negative way and Self Compassion, extraversion, openness to experiences, agreeableness and responsibility
Bengtsson, Söderström and Terjestam (2016)	the Structure and Development of Dispositional Compassion in Early Adolescence Compassion may be directed at a broad range of targets.	In Self Compassion was linked to negative self-perceptions
Mehr and Adams (2016)	Self Compassion as a Mediator of Maladaptive Perfectionism and Depressive Symptoms in College Students	Partial mediation, indicating that Self Compassion partially accounts for the relationship between maladaptive perfectionism and depressive symptoms
Aydin (2015)	Identifying the Relationship of Teacher Candidates' Humor Styles with Anxiety and Self Compassion Levels	Self-kindness, common humanity, isolation, and over-identification sub-dimensions have significant predictiveness for self-enhancing humor
Sahranç (2015)	Self Compassion as a Predictor of Psychological Entitlement in Turkish University Students	Psychological entitlement was predicted positively by over-identification, isolation, and self-judgment.
Gottlieb (2014)	Self-Awareness, Self Compassion, and Cultural Competence: Implications for	A positive correlation between Self Compassion and self-awareness, a moderating effect

Author & year	Variables	Result
	Social Work Education and Practice	of Self Compassion on the relationship between self-awareness and cultural competence, and a positive correlation between Self Compassion and cultural competence
Aydin and Kuzu (2013)	Teacher Candidates' Attitudes towards Inclusion Education and Comparison of Self Compassion Levels	Self Compassion total scores and sub-dimension scores affected attitudes towards to inclusion education
Saricaoglu and Arslan (2013)	An Investigation into Psychological Well-Being Levels of Higher Education Students with Respect to Personality Traits and Self Compassion	A significant positive correlation between all subscales of psychological well-being and Self Compassion
Wong and Mak (2013)	Differentiating the Role of Three Self Compassion Components in Buffering Cognitive-Personality Vulnerability to Depression among Chinese in Hong Kong	The differentiating role of the 3 Self Compassion components in buffering autonomous and self-critical individuals from depression.
Akin (2012)	Self Compassion and Automatic Thoughts	Automatic thoughts were predicted negatively by self-kindness, common humanity, and mindfulness
Newsome, Waldo and Gruszka (2012)	Mindfulness Group Work: Preventing Stress and Increasing Self Compassion among Helping Professionals in Training.	Perceived stress significantly decreased, and mindfulness and Self Compassion significantly increased in response to the group.
Seo (2012)	The Role of Self Compassion and Emotional Approach Coping in the Relationship between Maladaptive Perfectionism and Psychological Distress among East Asian International Students	East Asian international students with maladaptive perfectionism can alleviate psychological distress. They can do this by being less self-judgmental and socially isolated, and by not over-identifying with their own negative thoughts and emotions, which develops Self Compassion
Iskender	The Influence of Self	There were no significant

Author & year	Variables	Result
(2011)	Compassion on Academic Procrastination and Dysfunctional Attitudes	gender differences in Self Compassion, Academic Procrastination, and dysfunctional attitudes
Iskender and Ahmet (2011)	Self Compassion and Internet Addiction	Self-kindness, common humanity, and mindfulness factors of Self Compassion were found negatively related to internet addiction
Raque-Bogdan, Ericson, Jackson, Martin and Bryan (2011)	Attachment and Mental and Physical Health: Self Compassion and Mattering as Mediators	Attachment anxiety and avoidance were strongly related to the mental health component of functional health
Tanaka, Wekerle, Schmuck, Paglia-Boak and Angela (2011)	The Linkages among Childhood Maltreatment, Adolescent Mental Health, and Self Compassion in Child Welfare Adolescents	Higher childhood emotional abuse, emotional neglect, and physical abuse were associated with lower Self Compassion
Akin (2010)	Self Compassion and Interpersonal Cognitive Distortions	Self-kindness, common humanity, and mindfulness factors of Self Compassion were found negatively and self-judgment, isolation, and over-identification factors of Self Compassion were found positively related to interpersonal cognitive distortions
Newsome (2010)	Effects of a Mindfulness Course on Helping Professionals in Training: Examining Levels of Perceived Stress, Mindfulness, and Self Compassion.	Self Compassion significantly increased between pre-intervention and post-intervention and stayed stable between post-intervention and follow-up.
Ying (2009)	Contribution of Self Compassion to Competence and Mental Health in Social Work Students.	Over identification directly and indirectly (as mediated by decreased coherence) affected depressive symptom level.



## **Theoretical Overview of Academic Procrastination**

Procrastination is a universal bane of life. People put things off until tomorrow, and when tomorrow comes, they put them off until the next tomorrow. They subscribe to a system of unrealistic thinking where they fiddle away the present in a futile hope for a better tomorrow. Since this fantasy rarely translates into action, few of the activities that get put off get done in a timely fashion; some just don't get done. People afflicted with procrastination often create elaborate excuses to cover their delays, or even make jokes about their own procrastination. But a pattern of procrastination often leads to a sense of helplessness, feelings of being overwhelmed, and a lack of a sense of accomplishment. That's why procrastination is no joke.

### **Definitions of Procrastination**

A couple of hundred years ago, Benjamin Franklin shared with the world the secret of his success. "Never leave that till tomorrow which you can do today." This is the man who discovered electricity. For different life reasons, people procrastinate. While some people think that putting things off until the last minute might evoke excitement, individuals' lives are more negatively affected by procrastination and its negative consequences may not feel this way. We have all heard proverbs from our grandparents warning us about wasting time. The early bird catches the worm. A stitch in time saves nine. He who hesitates is lost. We can't pretend we haven't been told about the effects of procrastination. We've all heard the proverbs, philosophers, and our grandparents warning us about wasting time, and heard the poets urging us to seize the day. Still sometimes we have to see for

ourselves until we finally understand for ourselves what Benjamin Franklin really meant about being careful about spending our time..

The English term procrastinate comes from the Latin verb “procrastinatus”, a combination of “pro”, an adverb implying for or forward motion, and “crastinus”, belonging to tomorrow (Merriam Webster’s Collegiate Dictionary,1993) means “putting forward until tomorrow.”

In the last few decades, due to increased use of technology and time pressure, people put off things more in their lives. There are truly negative influences and consequences of procrastination, which affect people to different degreesThe study of procrastination and its consequences has received increased empirical attention within the field of psychology over the past several decades. In general, procrastination has long been identified as a negative behavior and procrastinators perceive this behavior as a problem that they wanted to reduce because of its serious negative outcomes (Ferrari, 1991a; Solomon & Rothblum,1984).

Procrastination may be defined as a way to avoid or escape from undesirable tasks. The procrastinator usually justifies his action by saying that "This is a boring assignment," or "I will do it later". In another definition, the procrastination has been described as an intentional, unreasonable postponement of the taken decisions, being unaware of the fact that this will bring about certain negative consequences . Procrastination is a widespread problem related to self-regulation, which is realized as deferral of the beginning and completing the important, necessary assignments. Procrastination may produce important negative consequences such as anxiety and depression, regarding the personality Depending on its cognitive, affective or

behavioral components, procrastination will have different manifestations including academic, decisional, neurotic or compulsive procrastination. The most common form, however, is Academic Procrastination. It is defined as pervasive and permanent desire on the part of learner to postpone academic activities, which almost always is accompanied by anxiety. Deferring study to the night just before the exam and the accompanied anxiety and haste can be described as the most obvious and familiar instance of this form of procrastination.

### **Academic Procrastination: An off shot**

Academic Procrastination is a special form of procrastination that occurs in the academic settings. It involves knowing that one needs to carry out an academic task or undertake an academic activity, such as writing a term paper, studying for examinations, finishing a school related project, or undertaking the weekly reading assignments, but, for one reason or another, failing to motivate oneself to do so within the expected time frame (Ackerman and Gross, 2005). Procrastination is a common event and is often unavoidable because there are thousands of potential tasks that we could be doing at any time. However, procrastination has been found to be domain-specific. Researchers have identified six different aspects/domains of life where people procrastinate: academic and work, everyday routines and obligations, health, leisure, family and partnership, and social contacts (Gröpel & Kuhl, 2006; Klingsleck, 2013). Each domain possesses different prevalence rate and correlations with other constructs, reasons, and consequences. Thus, each domain should be analyzed independently to fully understand its characteristics, impact, and

theoretical approaches. This review will focus specifically on the domain of Academic Procrastination.

Academic Procrastination is the most researched procrastination domain (Jorke, Thau, Fries, 2011). This form of situational procrastination occurs when a person is passive in completing academically related tasks such as studying for an exam or talking to an instructor. People who procrastinate academically may be consciously or unconsciously aware they are engaging in the behavior. The most accepted definition used for Academic Procrastination is “intentionally delaying or deferring work that must be completed” (Schraw et al, 2007). This definition is similar to that which has been proposed for general procrastination in that it incorporates the aspects of intending to delay, lack of productivity, and avoidability, but this definition relates to the academic domain.

Academic Procrastination might have a detrimental impact on a student’s life due to the multitude of examinations, term papers, and projects during his or her scholarly career. Academic Procrastination is similar to general procrastination in that it is negatively related to self-efficacy and life satisfaction and also positively related to stress and mental health (Klingsleck, 2013). However, research has shown that Academic Procrastination has a more significant impact than the other domains to an individual’s well-being (Jorke et al., 2011) and is related to depression (Solomon & Rothblum, 1984), anxiety (Rothblum et al., 1986; Stöber & Joormann, 2001), guilt (Pychyl, Lee, Thibodeau, & Blunt, 2000), neuroticism (Watson, 2001), irrational thinking (Bridges & Roig, 1997), and low self-esteem (Ferrari, 2000). Academic Procrastination also has a harmful impact on academic achievement

including lower grades, cheating, and lower grade point averages (Beck et al., 2000; Clark & Hill, 1994; Ellis & Knaus, 1977; Harriott & Ferrari, 1996; Roig & De Tommaso, 1995; Solomon & Rothblum, 1984; Wesley, 1994). Clearly, procrastination has a negative impact on an individual, but the actual profile of a person who procrastinates varies. Thus, due to the wide range of characteristics, there may be no typical profile of academic trait procrastinators, but there are some similarities that occur.

### **Reasons of Academic Procrastination**

Rothblum, Solomon and Murakami (1986) define this concept as postponing academic duties such as preparing for exams and delaying homework sometimes or constantly. On the other hand, according to Ferrari, Johnson and McCown (1995), Academic Procrastination behavior is the behavior of avoiding academic duties which cause students have academic failure. Similarly, it can be said that, Academic Procrastination behavior is to postpone academic duties in a way that that is causes failure, academic unhappiness and stress. There are many studies showing that students who make Academic Procrastination face with various negative results of this behavior (Burka and Yuen, 1983). Academic Procrastination behavior has negative results such as academic failure (Burka and Yuen, 1983; Ferrari, Johnson and McCown, 1995; Knaus, 1998), falling behind in the class (Rothblum, Solomon and Murakami, 1986), not attending the school and dropping out the school (Knaus, 1998). The main reasons of Academic Procrastination are Evaluation Anxiety, Perfectionism, Poor time Management, Dependency and help seeking, lack of Self

Confidence, Laziness, Lack of assertion and Peer influence. Details of each component are explained as follows.

*Evaluation Anxiety*

It is a combination of physiological over arousal tension, fear of failure that occur before or doing test situation.

*Perfectionism*

It is a personality trait by which a person strives for excessively high performance standards, accompanied by critical self evaluations and concerns regarding others evaluations.

*Poor time management*

It is the disability to plan and control how you spend the hours in your day to effectively accomplish your goals. Poor time management can be related to procrastination, as well as problem with self control.

*Dependency and help seeking*

Help seeking is a term that is generally used to refer to the behavior of actively seeking help from other people. It is about communicating with other people to obtain help in terms of understanding advice, information, treatment and general support in response to a problem or distressing experience.

*Lack of Self confidence*

One's degree of confidence is called self confidence, is the trust or faith that have in everyone's abilities. Losing confidence is no longer trusting in the ability to

perform. It may be reasonable as the result of past failure to perform, or unreasonable, because one “just has a feeling “ about something or having doubt. Those who lack self confidence expect failure, which may lead to the extremes of over achieving or under achieving.

### *Laziness*

Laziness is the habit of spend free time relaxing, when actually want to do complete the work but haven't finished. It is resulting from dislike to do work.

### *Lack of Assertion*

Inability or difficulty in expressing feeling or thoughts in right situations in a right way. In some situations we may find ourselves not really expressing how we felt or thought and feeling upset or frustrated with ourselves.

### *Peer influence*

It is the influence on a peer group, observers or individual exerts, that encourages others to change their attitudes, values or behavior to conform to groups.

## **Measurement of Academic Procrastination**

Most studies on procrastination use self-report instruments to measure procrastination (Schraw et al., 2007; Steel, 2007; Van Eerde, 2000). These inventories can be categorized in several different ways. The first is by the context in which procrastination takes place; that is Academic Procrastination or general procrastination (Ferrari, Johnson, & McCown, 1995). Academic Procrastination inventories include the Procrastination Assessment Scale-Students (Soloman &

Rothblum, 1984), the Aitken Procrastination Inventory (Aitken, 1982), and the Tuckman Procrastination Scale (Tuckman, 1991). General procrastination inventories include the General Procrastination Scale (GP; Lay, 1986), the Adult Inventory of Procrastination (McCown & Johnson, 1989), and the Decisional Procrastination Questionnaire (Mann, 1982). A second categorization can be made by further dividing general procrastination inventories by the motivation underlying their task delay, as in arousal procrastination or avoidance procrastination. Arousal procrastination refers to situations in which individuals procrastinate as a thrill seeking, or “rush” experience (i.e. sensation seeking), whereas avoidant procrastination refers to situations in which individuals procrastinate as a tactic to avoid task information about personal ability (situations perceived as unpleasant) in order to protect self esteem (Ferrari, 1992). Lay’s (1986) GP assesses arousal procrastination, while McCown and Johnson’s (1989) AIP assesses avoidant procrastination. General procrastination scales can also be categorized as behavioural procrastination and decisional procrastination. Both the GP and AIP are considered behavioural measures, while Mann’s (1982) Decisional Procrastination Questionnaire (DPQ) is considered a decisional measure.

Lastly, inventories can be divided by the type of procrastination they measure: positive or negative procrastination. All inventories mentioned thus far measure negative aspects of procrastination. The only procrastination inventory to measure positive aspects of procrastination is Chu & Moran’s (2009) Active Procrastination Scale (APS). The APS distinguishes between active and passive procrastinators. Passive procrastinators are procrastinators by the traditional



definition whereas active procrastinators are a positive type of procrastinators who make deliberate decisions to procrastinate and experience positive personal outcomes including high academic achievement. The APS assesses four dimensions of active procrastination: outcome satisfaction, preference for pressure, intentional decision, and ability to meet deadlines.

### **Studies Related to Academic Procrastination**

Akpur (2017) conducted a study on Predictive and Explanatory Relationship Model between Procrastination, Motivation, Anxiety and Academic Achievement. The purpose of this study is to determine the predictive and explanatory relationship model between procrastination, motivation, anxiety and academic achievement of university students. In this study, a causal research design was used. The study group consisted of 211 participants. In order to determine their motivation levels, Academic Motivation Scale (AMS); their anxiety levels, Foreign Language Classroom Anxiety Scale (FLCAS) and their procrastination levels, Aitken Procrastination Inventory (API) were all applied. Students' grades during the term were considered as the criteria for academic achievement. Data were obtained through Structural Equation Model (SEM). Findings reveal that, there is not a significant relationship between anxiety and academic achievement. However, both the relationship between Academic Procrastination and academic achievement and the relationship between motivation and academic achievement are significant. According to findings, the relationship between Academic Procrastination and motivation is significant and negative. Considering the findings, the predictive and

explanatory relationship pattern between procrastination, motivation anxiety and academic achievement was suggested as a model.

Bekleyen (2017) conducted a study on Understanding the Academic Procrastination Attitude of Language Learners in Turkish Universities. The prevalence of Academic Procrastination has long been the subject of attention among researchers. However, there is still a paucity of studies examining language learners since most of the studies focus on similar participants such as psychology students. The present study was conducted among students trying to learn English in the first year of their university education. 144 male and 169 female students from four different Turkish universities participated in the study. The main purpose of the study was to investigate the relationship between the procrastination levels of language students and variables like gender, department, age, self-reported motivational levels, and satisfaction with majors. The findings of the study suggested that men reported significantly higher procrastination behavior. The participants who reported higher motivation procrastinated less while age was not found to be related to procrastination.

Boysan and Kiral (2017) conducted a study on Associations between Procrastination, Personality, Perfectionism, Self-Esteem and Locus of Control. The purpose of the study was to provide a more profound understanding of the relations between procrastination, perfectionism, big five personality, locus of control and self-esteem. Young adults (162 women, 80 men:  $M = 20.98$ ) completed measures of Academic Procrastination, self-esteem, big five personality, perfectionism and locus of control. Parental criticism was a significant correlate of procrastination, while

personality traits of conscientiousness, agreeableness and organisation were inversely associated with procrastination behaviour. These findings suggest that personality-based intervention approaches with the inclusion of family can be more influential in procrastination prevention and treatment.

Çapri, Gündüz and Akbay (2017) conducted a study on Utrecht Work Engagement Scale-Student Forms' (UWES-SF) Adaptation to Turkish, Validity and Reliability Studies, and the Mediator Role of Work Engagement between Academic Procrastination and Academic Responsibility. The primary goal of this study is to complete the adaptation, validity and reliability studies of the long (17 items) and short (9 items) forms of UWES-SF. The secondary goal of this study is to study the mediating role of work engagement between Academic Procrastination and academic responsibility in high school students. The study group consists of 597 students, who are enrolled into various high schools in Mersin during the academic year of 2013-2014. Confirmatory factor analysis (CFA) was used in order to investigate the factor structure of UWES-SF; Pearson moment coefficient was used for the correlation values between the hidden variables observed in the criterion-related validity study; Cronbach Alpha coefficient was used to determine internal consistency reliability coefficients; inter-item correlation and total-item correlation was calculated to determine item validity and homogeneity. Multiple regression analysis was also used for the mediation test. The results for the Turkish forms of the UWES-SF shows that it can be used in a valid and reliable way on the high school students within the country. Along with this, it was clearly seen in this study that work engagement has a mediating effect between academic responsibility and Academic Procrastination.

Wang, Zhou, Yu, Ran, Liu and Chen (2017) conducted a study on Acceptance and Commitment Therapy and Cognitive-Behavioral Therapy as Treatments for Academic Procrastination: A Randomized Controlled Group Session. This study tested the efficacy of Acceptance and Commitment Therapy (ACT), compared with Cognitive-Behavioral Therapy (CBT), in alleviating Academic Procrastination. A total of 60 (53.3% male) undergraduates suffering from Academic Procrastination were randomly assigned to two treatment groups (ACT and CBT) and a control group. The procrastination symptoms and related psychological mechanisms were assessed immediately after the closure of treatment and at 3-month follow-up (FU). Both therapies showed remarkable short-term effects in decreasing procrastination, but ACT had a better long-term effect. Participants achieved self-esteem enhancement through treatment of both ACT and CBT. While ACT significantly decreased negative affect and improved neuroticism, CBT had a stronger effect on time management. The findings suggest that both CBT and ACT are effective interventions for procrastinators but may have different therapeutic mechanisms.

Wu and Fan (2017) conducted a study on Academic Procrastination in Linking Motivation and Achievement-Related Behaviours: A Perspective of Expectancy-Value Theory. The objective of this study was to investigate the relationships among college students' achievement motivation (subjective task value and academic self-efficacy), Academic Procrastination (delay and missing deadlines) and achievement-related behaviours (effort and persistence). More specifically, the study investigated the mediating role of Academic Procrastination

in linking college students' achievement motivation to their effort and persistence from the perspective of the expectancy-value theory. A total of 584 college students enrolled in a large southern urban university completed a self-report survey for the study. The study suggested two possible pathways that motivate students to persist and put forth greater effort, rooting in students' academic self-efficacy and subjective task value through their relationships with students' Academic Procrastination.

Yilmaz (2017) conducted a study on *The Relation between Academic Procrastination of University Students and Their Assignment and Exam Performances: The Situation in Distance and Face-to-Face Learning Environments*. The relation between assignment and exam performances of the university students and their Academic Procrastination behaviors in distance and face-to-face learning environments was investigated in this study. Empirical research carried out both in face-to-face and online environments have generally shown a negative correlation between Academic Procrastination and academic performance. However, the effect of Academic Procrastination on assignments in distance learning setting has not been analyzed extensively. To understand the interaction between Academic Procrastination and the learning environment; assignment and exam performances of eighty-eight university students in face-to-face (FtF) and distance learning (DL) environments were investigated. According to the findings of the study, students' Academic Procrastination and assignment scores were negatively correlated in both environments but especially in DL setting. Contrary to this, Academic Procrastination and exam scores were correlated to each other only in FtF environment. On the other hand, there was no correlation between total assignment

and exam scores for DL group, while a medium positive correlation was found in FtF group. The findings of binary logical regression analysis demonstrated that predictive value of the DL environment for assignment score is much stronger than Academic Procrastination behavior of students.

Düsmöz and Barut (2016) studied Rational Emotive Behavior Based on Academic Procrastination Prevention: Training Programme of Effectiveness. The research is an experimental study which has experimental and control groups, and based on pre-test, post-test, monitoring test model. Research group consists of second and third grade students of Primary School Education and Psychological Counseling undergraduate programmes in Giresun University Faculty of Educational Sciences. The research group was formed among the students whose Academic Procrastination tendency is middle or high, by using Academic Procrastination scale. 60 students, whose Academic Procrastination tendencies are medium and high level, were identified. 24 students, who volunteered to participate to the study, were appointed randomly to the experimental and control groups. Academic Procrastination scale was used to collect data. Scales were given to experiment and control groups as pre-test. A prevention of Academic Procrastination program which developed by the researcher based on Rational Emotive Behavioral Approach was applied to the experimental group. Control group was not given any training. After the training the of experiment group, post-test measurements were taken. And also 30 days after the experimental training, follow-up measurements were taken. Data were analyzed using Analyzis of Nonparametric. In the result of the applied program, a significant difference was found in favor of experiment group in Academic Procrastination. The results were interpreted in the light of the

literature considering effects of Rational Emotive Behavioral Approach on Academic Procrastination.

Kim, Alhaddab, Aquino and Negi (2016) studied *Delaying Academic Tasks? Predictors of Academic Procrastination among Asian International Students in American Universities*. Existing body of research indicates that both cognitive and non-cognitive factors contribute to college students' tendency of Academic Procrastination. However, little attention has been paid to the likelihood of Academic Procrastination among Asian international college students. Given the need for empirical research on why Asian international students engage in delaying academic tasks, the purpose of our study was to determine what key factors are associated with Academic Procrastination among Asian international students. Using the survey data collected from 226 Asian international students enrolled at four different U.S. universities, study indicates that collective coping, avoidance coping, and language ability are the three strongest predictors of procrastination in Asian international students.

Ocak and Boyraz (2016) studied *Examination of the Relation between Academic Procrastination and Time Management Skills of Undergraduate Students in Terms of Some Variables*. Academic Procrastination is seen to be quite common among undergraduates and time management is thought to be one of the possible reasons of it. Two surveys, Academic Procrastination and time management, were given to 332 undergraduate students in this correlational research. Students' Academic Procrastination is explained through frequencies and percentages and a correlation is questioned between Academic Procrastination and time management.

Regression analysis is used to find out if time management predicts Academic Procrastination in a statistically significant way. Besides, students' level of time management (low, medium, high) is examined and covariance analysis has been carried out to see if time management level and gender, time management level and housing type (private or state dormitory or house), time management level and their major and time management level and where they live have a common effect on Academic Procrastination. Results indicate that students are generally indecisive about their behaviors of procrastination in academic tasks and are in middle level in terms of time management skills. There is a moderate level, negative sided and statistically significant correlation between Academic Procrastination and time management. Not a common effect of mentioned above variables is seen.

Ocal (2016) conducted a study on Predictors of Academic Procrastination and University Life Satisfaction among Turkish Sport Schools Students. The purpose of this study was to examine the role of burnout, academic self-efficacy and academic success in predicting procrastination and university life satisfaction among sports schools students. The study sample comprised of 224 participants aged from 18 to 30 years with a mean age of 21.71 (SD = 1.94) who were attending various departments of sport school in a public university. A quantitative research survey method was used in the study. Clustered sampling procedure was utilized in order to get a more representative sample. Pearson's product moment's correlation coefficient, hierarchical regression analysis, the independent t-test and one-way ANOVA were used for data analysis. Significance was set at a minimum of .05. Results indicate that academic burnout, academic self-efficacy and academic success are significant predictors of procrastination. According to these results, burnout



seems to be the strongest predictor which explains 32.3% of the variance in procrastination. On the other hand, efficacy dimension of burnout was the only significant predictor of university life satisfaction among Turkish sports schools students.

Yerdelen, McCaffrey and Klassen (2016) studied Longitudinal Examination of Procrastination and Anxiety, and Their Relation to Self-Efficacy for Self-Regulated Learning: Latent Growth Curve Modeling. This study investigated the longitudinal association between students' anxiety and procrastination and the relation of self-efficacy for self-regulation to these constructs. Latent Growth Curve Modeling was used to analyze data gathered from 182 undergraduate students (134 female, 48 male) at 4 times during a semester. Our results showed that procrastination significantly increased over the semester, while academic anxiety decreased. Students' procrastination and anxiety were positively correlated at the beginning of the semester; however, the trajectories of procrastination and anxiety were not predicted from initial levels of these variables. Moreover, at the initial measurement period, high levels of anxiety and procrastination were significantly related to low levels of self-efficacy for self-regulation, whereas the rate of change in anxiety and procrastination over time were not predicted by students' initial levels of self-efficacy for self-regulation.

Ebadi and Shakoorzadeh (2015), conducted a study on Investigation of Academic Procrastination Prevalence and Its Relationship with Academic Self-Regulation and Achievement Motivation among High-School Students in Tehran City. The present study was carried out with the aim of Investigation of Academic

Procrastination prevalence and its relationship with academic self-regulation and achievement motivation among high-school students in Tehran city. The sample included 624 high school students (312 Boys & 312 Girls) from different areas and regions that selected using random cluster-multistage sampling method. Procrastination Assessment Scale-Student (Solomon & Rothblum, 1984), Self-Regulated Learning Strategies questionnaire (Zimmerman & Pons, 1982) and Achievement motivation test (Hermans, 1970) were used in this study. Data were analyzed in two parts, descriptive and inferential statistics. The results of Academic Procrastination prevalence using descriptive statistic showed that over half of students nearly always or always procrastinate. Also, results showed that boys and girls procrastinate with the same rate, in general. And boys more than girls procrastinate only on preparing academic tasks. The result of regression analysis also showed that academic self-regulation and achievement motivation predict Academic Procrastination significantly.

Toker and Avci (2015) conducted a study on Effect of Cognitive-Behavioral-Theory-Based Skill Training on Academic Procrastination Behaviors of University Students. This study examined the effectiveness of a cognitive-behavioral theory (CBT) psycho-educational group program on the Academic Procrastination behaviors of university students and the persistence of any training effect. This was a quasi-experimental research based on an experimental and control group pretest, posttest, and followup test model. Twenty-six students participated in the research, with 13 each in the experimental and control groups. The Academic Procrastination Scale (APS), Melbourne Decision-Making Questionnaire I-II, Rosenbaum's Learned

Resourcefulness Scale, State-Trait Anxiety Inventory, and Beck Depression Inventory were administered for the synchronization of the two groups in the selection process. The APS was used to collect quantitative data from the participants. In the analysis of the quantitative data, analysis of covariance and t-test were used for statistical analyses. The qualitative data were collected via a general evaluation form of group processes, and thematic analysis was applied to the collected data. It was observed that CBT-based skill training decreased university students' Academic Procrastination behaviors and had a long-term effect on the students.

Drysdale and McBeath (2014) studied Exploring Hope, Self-Efficacy, Procrastination, and Study Skills between Cooperative and Non-Cooperative Education Students. The aim of this study was to examine the relationship between participation in cooperative education, and several psychological constructs believed to be related to success in both academic and professional settings. Participants, undergraduate cooperative (n = 1224) and non-cooperative education (n = 746) students in all years of study and from several academic faculties, completed a survey measuring the psychological constructs of hope, self-efficacy, procrastination, and study-skills. Results indicated significant differences in several study skill characteristics as a function of co-op, gender, and faculty. No significant differences emerged between co-op and non-co-op students on the hope, self-efficacy, or procrastination scales. Implications and recommendations for future research are discussed.

Kandemir, Ilhan, Ozpolat and Palanci (2014) conducted a study on Analysis of Academic Self-Efficacy, Self-Esteem and Coping with Stress Skills Predictive Power on Academic Procrastination. The goal of this research is to analyze the predictive power level of academic self-efficacy, self-esteem and coping with stress on Academic Procrastination behavior. Relational screening model is used in the research whose research group is made of 374 students in Kirikkale University, Education Faculty in Turkey. Students in the research group are from different grades and demographic features. "Aitken Academic Procrastination Scale", "Academic Self-Efficacy Scale", "Rosenberg Self-Esteem Scale" and "Coping with Stress Scale" are used in the research. Path analysis modeling is used in the research in order to test the hypothesis models. Results indicate that, it is determined that the Academic Procrastination behavior of students is explained by academic self-efficacy, self-esteem and coping with stress strategies in scope of a model. It is seen that active planning, one of the coping with stress strategies explains Academic Procrastination on a negative and meaningful level; biochemical avoidance strategies explain on a positive and meaningful level. Research results are discussed in the light of related literature.

Balkis, Duru and Bulus (2013) conducted a study on Analysis of the Relation between Academic Procrastination, Academic Rational/Irrational Beliefs, Time Preferences to Study for Exams, and Academic Achievement: A Structural Model. The purpose of this study was to investigate the relations between academic rational/irrational beliefs, Academic Procrastination, and time preferences to study for exams and academic achievement by using the structural equation model. The

sample consisted of 281 undergraduate students who filled in questionnaires at the 7-week-long summer course. Students responded to questionnaires assessing their levels of (a) Academic Procrastination, (b) academic rational/irrational beliefs, and (c) time preferences to study for exams and demographic information sheet. In general, the results showed that rational academic beliefs have a direct impact on Academic Procrastination and time preferences to study for exams. Academic rational beliefs also have an impact on academic achievement indirectly by mediation of Academic Procrastination and time preferences to study for exams. The results also showed that Academic Procrastination has an impact on academic achievement both directly and by mediation of time preferences to study for exams. This study suggested that there is a relation between Academic Procrastination and rational academic beliefs, which should be addressed further in counseling intervention. Knowledge about the role of irrational academic beliefs and their relations with Academic Procrastination may assist school/ college counselors to develop interventions for students that suffer from delaying behaviors that negatively affect academic success.

Mohammed, Sherit, Eissa and Mostafa (2013) studied Academic Procrastination among College Students with Learning Disabilities: The Role of Positive and Negative Self-Oriented Perfectionism in Terms of Gender, Specialty and Grade. The purpose of this study was three folds: to explore whether there were relationship between Academic Procrastination and positive and negative self-oriented perfectionism of college students with learning disabilities, the extent to which positive and negative self-oriented perfectionism of college students with

learning disabilities predicts Academic Procrastination, and whether level of Academic Procrastination tendency among college students with learning disabilities differs according to demographic variables. The research is based on a convenience sample of 80 undergraduate students from a variety of departments at Zagazig Faculty of Education, Egypt. Findings indicated that there was a positive correlation between Academic Procrastination and Positive Self-Oriented Perfectionism, while no significant correlation was determined between Academic Procrastination and Negative Self-Oriented Perfectionism. According to the multiple linear regression analysis results, Positive Self-Oriented Perfectionism, and Negative Self-Oriented Perfectionism account for 22% of Academic Procrastination. Positive Self-Oriented Perfectionism made a positive contribution to the model, Negative Self-Oriented Perfectionism made no significant contribution, which indicated that the only significant predictor was Positive Self-Oriented Perfectionism. The independent t-test showed that undergraduates' Academic Procrastination scores did not differ significantly according to gender. One-way ANOVA showed that undergraduates' Academic Procrastination scores did not differ significantly according to grade. The independent t-test showed that undergraduates' Academic Procrastination scores did not differ significantly according to Specialty.

Akça (2012) conducted a study on An Investigation into the Self-Handicapping Behaviors of Undergraduates in Terms of Academic Procrastination, the Locus of Control and Academic Success. The aim of this study was to investigate the relationship between self-handicapping, Academic Procrastination, the locus of control and academic success. The aim was also to determine whether these

variables predicted self-handicapping behavior. The population of the study consisted of 263 undergraduates studying in different departments of the Faculty of Education at Uludag University. The Self-Handicapping Scale (Akin, 2012), Academic Procrastination Scale (Çakici, 2003), and Locus of Control Scale (Dag, 1991) were used as data collection tools. Data was analyzed via Pearson correlation analysis and multi linear regression. As a result of the correlation analyses, a positively significant relationship was determined between self-handicapping, the external locus of control and Academic Procrastination. As a result of the regression analysis, it was concluded that Academic Procrastination, the locus of control and academic success predicted self-handicapping in terms of their explanation rates, respectively. Educators and psychological counselors discussed this issue and they made suggestions in line with the findings.

Jiao, DaRos-Voseles, Collins and Onwuegbuzie (2011) studied Academic Procrastination and the Performance of Graduate-Level Cooperative Groups in Research Methods Courses. This study examined the extent to which Academic Procrastination predicted the performance of cooperative groups in graduate-level research methods courses. A total of 28 groups was examined ( $n = 83$  students), ranging in size from 2 to 5 ( $M = 2.96$ ,  $SD = 1.10$ ). Multiple regression analyses revealed that neither within-group mean nor within-group variability pertaining to levels of procrastination predicted the group product (i.e., quality of article critique). However, cooperative groups that attained the highest levels of procrastination due to task aversiveness, on average, tended to be those with the lowest levels of performance on the group product. Groups with the lowest levels of achievement tended to be those containing students who reported procrastinating most frequently

on performing administrative tasks (26.4% of the variance explained), keeping up with weekly reading assignments (8.8% of the variance explained), and writing term papers (11.8% of the variance explained). These three procrastination variables together explained 46.9% of the variance in performance. This finding suggests that level of Academic Procrastination appears to play an important role among graduate students with respect to the performance of cooperative learning groups. (Contains 1 figure.)

Michinov, Brunot, Le Bohec, Juhel and Delaval (2011) conducted a study on Procrastination Participation, and Performance in Online Learning Environments. The present study focuses on a specific learner characteristic in the management of time--procrastination--, and its role in an online learning environment. More specifically, it was expected that procrastination would influence the successfulness of online learning and that this could be explained by the level of participation of learners in discussion forums. A study was conducted to test this hypothesis among a sample of learners taking a 10-week course on environmental and land use issues. As predicted, a negative relationship was found between procrastination and performance, and this relationship was mediated by the level of the learners' participation in discussion forums. In other words, it appears that if high procrastinators are less successful online learners than low procrastinators, it is partly due to their lack of participation in discussion forums during the learning process. Additionally, some behavioral differences between high and low procrastinators were found in the times they decided to (re)start working at a distance, felt motivated to work on their course, and felt like dropping out of the



course. To conclude, some practical implications for tutoring online activities and for stimulating participation in online learning environments have been proposed.

Deniz, Tras and Aydogan (2009) studied *An Investigation of Academic Procrastination, Locus of Control, and Emotional Intelligence*. In this research, the effects of emotional intelligence on the Academic Procrastination and locus of control tendencies of a group of university students are investigated. The sample of this study consists of 435 university students including 273 female students and 162 male students who were randomly selected from the population of Selcuk University students. The age range of the students varies in between 17-21 years old and the mean age is 20.19 years old. A personal information form, the Emotional Intelligence Scale, the Academic Procrastination Scale and the Locus of Control Scale were administered to the sample. Research findings show that the sub-scales of the Emotional Intelligence Scale, adaptability and coping with stress, are highly correlated with the students' Academic Procrastination tendency scores ( $p$  less than .05). Secondly, it was found that the two sub-scales of the Emotional Intelligence Scale, adaptability and general mood, could significantly predict the students' locus of control scores ( $p$  less than .05). Lastly, a negative correlation was found between emotional intelligence skills and both Academic Procrastination ( $p$  less than .05) and locus of control ( $p$  less than .01). The results were discussed in the light of the related literature.

Collins, Onwuegbuzie and Jiao (2008) conducted a study on *Reading Ability as a Predictor of Academic Procrastination among African American Graduate Students*. The present study examined the relationship between reading ability (i.e.,

reading comprehension and reading vocabulary) and Academic Procrastination among 120 African American graduate students. A canonical correlation analysis revealed statistically significant and practically significant multivariate relationships between these two reading ability variables and graduate students' levels of Academic Procrastination. Specifically, the first canonical correlation analysis revealed a statistically significant and practically significant multivariate relationship between reading ability and Academic Procrastination resulting from fear of failure. The second canonical correlation analysis revealed a statistically significant and practically significant multivariate relationship between reading ability and Academic Procrastination associated with writing a term paper, performing administrative tasks, attending meetings, keeping up with weekly reading assignments, and, most notably, performing academic tasks. Implications are discussed in the context of designing and implementing strategies designed to improve African American student performance and instruction in graduate-level courses.

Author & year	Variables	Result
Akpur (2017)	Predictive and Explanatory Relationship Model between Procrastination, Motivation, Anxiety and Academic Achievement.	Relationship between Academic Procrastination and motivation is significant and negative
Bekleyen (2017)	Understanding the Academic Procrastination Attitude of Language Learners in Turkish Universities.	Men reported significantly higher procrastination behavior
Boysan and Kiral (2017)	Associations between Procrastination, Personality, Perfectionism, Self-Esteem and	Parental criticism was a significant correlate of procrastination, while personality traits of

Author & year	Variables	Result
	Locus of Control.	conscientiousness, agreeableness and organisation were inversely associated with procrastination behaviour
Çapri, Gündüz and Akbay (2017)	Utrecht Work Engagement Scale-Student Forms' (UWES-SF) Adaptation to Turkish, Validity and Reliability Studies, and the Mediator Role of Work Engagement between Academic Procrastination and Academic Responsibility.	Work engagement has a mediating effect between academic responsibility and Academic Procrastination.
Wang, Zhou, Yu, Ran, Liu and Chen (2017)	Acceptance and Commitment Therapy and Cognitive-Behavioral Therapy as Treatments for Academic Procrastination: A Randomized Controlled Group Session.	ACT significantly decreased negative affect and improved neuroticism, CBT had a stronger effect on time management
Wu and Fan (2017)	Academic Procrastination in Linking Motivation and Achievement-Related Behaviours: A Perspective of Expectancy-Value Theory.	Two possible pathways that motivate students to persist and put forth greater effort, rooting in students' academic self-efficacy and subjective task value through their relationships with students' Academic Procrastination.
Yilmaz (2017)	The Relation between Academic Procrastination of University Students and Their Assignment and Exam Performances: The Situation in Distance and Face-to-Face Learning Environments.	Students' Academic Procrastination and assignment scores were negatively correlated in both environments but especially in DL setting
Düsmesz and Barut (2016)	Rational Emotive Behavior Based on Academic Procrastination Prevention: Training Programme of Effectiveness	A significant difference was found in favor of experiment group in Academic Procrastination.
Kim, Alhaddab, Aquino and Negi (2016)	Delaying Academic Tasks? Predictors of Academic Procrastination among Asian International Students in American Universities	Collective coping, avoidance coping, and language ability are the three strongest predictors of procrastination in Asian international students.

Author & year	Variables	Result
Ocak and Boyraz (2016)	Examination of the Relation between Academic Procrastination and Time Management Skills of Undergraduate Students in Terms of Some Variables.	Significant correlation between Academic Procrastination and time management
Ocal (2016)	Predictors of Academic Procrastination and University Life Satisfaction among Turkish Sport Schools Students.	Academic burnout, academic self-efficacy and academic success are significant predictors of procrastination
Yerdelen, McCaffrey and Klassen (2016)	Longitudinal Examination of Procrastination and Anxiety, and Their Relation to Self-Efficacy for Self-Regulated Learning: Latent Growth Curve Modeling.	High levels of anxiety and procrastination were significantly related to low levels of self-efficacy for self-regulation, whereas the rate of change in anxiety and procrastination over time were not predicted by students' initial levels of self-efficacy for self-regulation.
Ebadi and Shakoorzadeh (2015),	Investigation of Academic Procrastination Prevalence and Its Relationship with Academic Self-Regulation and Achievement Motivation among High-School Students in Tehran City.	Academic self-regulation and achievement motivation predict Academic Procrastination significantly
Toker and Avci (2015)	Effect of Cognitive-Behavioral-Theory-Based Skill Training on Academic Procrastination Behaviors of University Students.	CBT-based skill training decreased university students' Academic Procrastination behaviors and had a long-term effect on the students.
Drysdale and McBeath (2014)	Exploring Hope, Self-Efficacy, Procrastination, and Study Skills between Cooperative and Non-Cooperative Education Students.	Significant differences in several study skill characteristics as a function of co-op, gender, and faculty
Kandemir, Ilhan, Ozpolat and Palanci (2014)	Analysis of Academic Self-Efficacy, Self-Esteem and Coping with Stress Skills Predictive Power on Academic Procrastination.	The Academic Procrastination behavior of students is explained by academic self-efficacy, self-esteem and coping with stress strategies in scope of a model.

Author & year	Variables	Result
Balkis, Duru and Bulus (2013)	Analysis of the Relation between Academic Procrastination, Academic Rational/Irrational Beliefs, Time Preferences to Study for Exams, and Academic Achievement: A Structural Model	Academic Procrastination has an impact on academic achievement both directly and by mediation of time preferences to study for exams.
Mohammed, Sherit, Eissa and Mostafa (2013)	Academic Procrastination among College Students with Learning Disabilities: The Role of Positive and Negative Self-Oriented Perfectionism in Terms of Gender, Specialty and Grade	Undergraduates' Academic Procrastination scores did not differ significantly according to gender
Akça (2012)	An Investigation into the Self-Handicapping Behaviors of Undergraduates in Terms of Academic Procrastination, the Locus of Control and Academic Success	Positively significant relationship was determined between self-handicapping, the external locus of control and Academic Procrastination
Jiao, DaRos-Voseles, Collins and Onwuegbuzie (2011)	Academic Procrastination and the Performance of Graduate-Level Cooperative Groups in Research Methods Courses	Level of Academic Procrastination appears to play an important role among graduate students with respect to the performance of cooperative learning groups
Michinov, Brunot, Le Bohec, Juhel and Delaval (2011)	Procrastination Participation, and Performance in Online Learning EnvironmentsThe present study focuses on a specific learner characteristic in the management of time--procrastination--, and its role in an online learning environment.	A negative relationship was found between procrastination and performance, and this relationship was mediated by the level of the learners' participation
Deniz, Tras and Aydogan (2009)	An Investigation of Academic Procrastination, Locus of Control, and Emotional Intelligence	Sub-scales of the Emotional Intelligence Scale, adaptability and coping with stress, are highly correlated with the students' Academic Procrastination tendency scores
Collins, Onwuegbuzie and Jiao	Reading Ability as a Predictor of Academic Procrastination among African American Graduate	Significant and practically significant multivariate relationship between reading

Author & year	Variables	Result
(2008)	Students	ability and Academic Procrastination resulting from fear of failure.

### Conclusion

The above reviews of related literature give a wider perspective of the present problems. The investigator reviewed the literature in great extent. Several studies reveal the nature of studies. The results found statistical function differences between the subjects of high and low Cognitive Dissonance in the score of the avoidant style dimension for the subjects of high Cognitive Dissonance. There are limited studies in the area of Cognitive Dissonance. Academic Procrastination appears to play an important role among graduate students with respect to the performance of cooperative learning groups. Significant negative relationship between lack of self-confidence and Self Compassion, extraversion, openness to experiences, agreeableness and responsibility. It was found that there was a significant negative relationship between unwillingness to take responsibility and Self Compassion, extraversion, openness to experiences, agreeableness and responsibility.

From the review of literature related to the variables, it is obvious that most of the studies on Cognitive Dissonance, Self Compassion and Academic Procrastination were conducted abroad. Apart from these, the investigator could not locate any study showing the Interaction of Cognitive Dissonance and Self Compassion on Academic Procrastination. In this context the present study is found significant.

## METHODOLOGY

- *Variable of the study*
- *Objectives of the study*
- *Hypotheses of the study*
- *Tool used for data collection*
- *Sample for the study*
- *Data collection procedure, scoring and consolidation of data*
- *Statistical Techniques used for analysis of data*

## **METHODOLOGY**

Methodology is the procedure of technique adopted in research study. The success of any research work depends largely upon the suitability of the methods, tools and techniques followed by the researcher collecting and processing data. Thus the role of methodology is to carry on the research work in a scientific and valid manner

The present study entitled influence of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students of Kerala attempts to study influence of two independent variables on the dependent variable Academic Procrastination of secondary school students. The major purpose of the study is to identify the main effect and interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students of Kerala. The study also aims to identify the individual and joint contributions of the independent variables on the dependent variable, Academic Procrastination. The methodology of the present study is described under the following heading viz.,

- Variable
- Objectives
- Hypotheses
- Method used
- Tools used



- Sample selected for the study
- Data collection procedure, scoring and consolidation of data
- Statistical techniques used for analysis of data

The details of each of the above are given in the following.

### **Variables**

The independent and dependent variables selected for the present study are the following.

#### **Independent Variables**

Two independent variables were selected for the study. They are.

- Cognitive Dissonance
- Self – Compassion

#### **Dependent Variables**

- Academic Procrastination

#### **Basal Variables**

Basal variables selected for the study are gender, locale and type of management and course of study.

Variables are diagrammatically represented in the following figure: 5

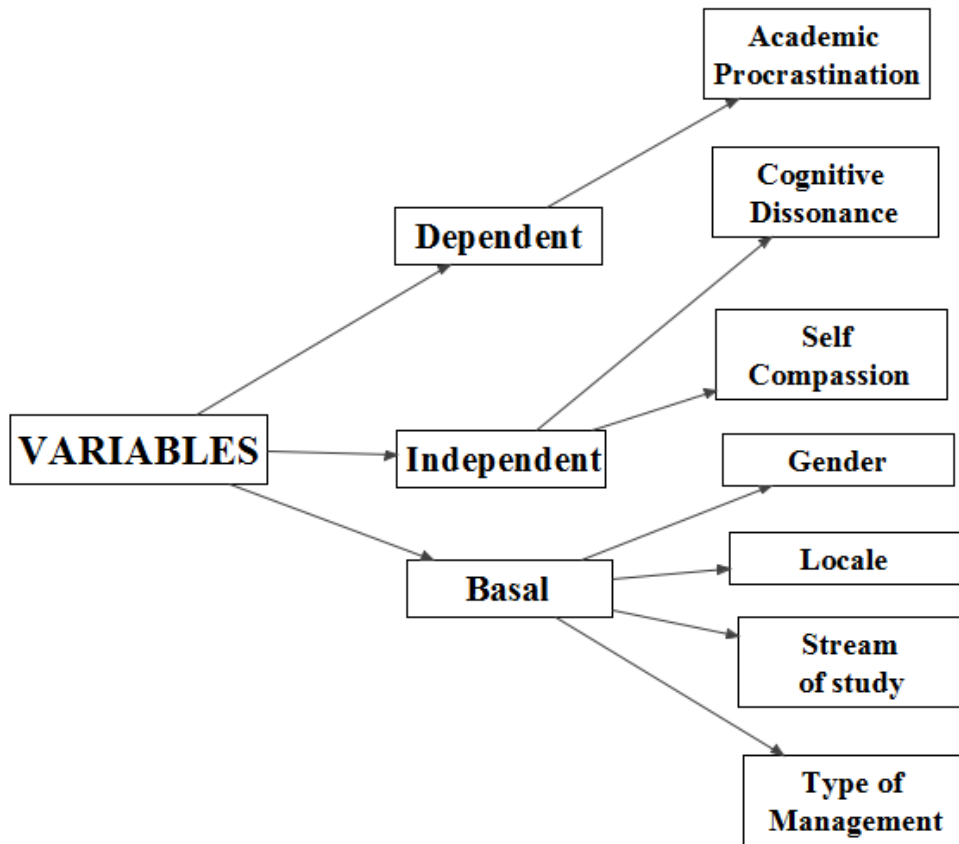


Figure 5: Diagrammatic representation of the variables

### Rationale for selecting variables

The independent variables of the study were decided after an initial review of literature in the area of Academic Procrastination. The literature suggested that Academic Procrastination among higher secondary school students is associated with a number of sociological and psychological factors. Academic Procrastination is a voluntary delay of the Completion of an academic task within the expected or desired time frame despite expecting to be worse off for the delay. It is a special form of procrastination that occurs in the academic settings. It involves knowing that one needs to carry out an academic task or undertake an academic activity, such as

writing a term paper, studying for examinations, finishing a school related project, or undertaking the weekly reading assignments, but, for one reason or another, failing to motivate oneself to do so within the expected time frame. This can be create an emotional discomfort.

Most of the higher secondary school students are adolescents. So the students are facing so many emotional, sociological and psychological problems. Change of roles of the adolescents in home, school and society, from total dependence to independent role with great responsibility leads to emotional disturbances. Inconsistency in parental attitudes, conflict between parental norms of behavior and peer norms etc. heightens the emotions of adolescents. All these problems students should seriously affected in their academic activities. It is a type of “anti-motivation” where in individuals decides not to move towards carrying out and finishing a chosen academic task. Failure to achieve the desired success at school heighten emotionality so much so that many adolescents commit suicide, leave home and sometimes give up education. So Academic Procrastination is a major problem in the present era. Self Compassion refers to the ability to accept oneself in spite of one’s limitations. Research shows that Self Compassion can be a learned skill. Studies have indicated higher levels of psychological health can be created when Self Compassion is introduced. To date, no research has examined the role of Self Compassion practice in the serious problems of students related to Academic Procrastination. So the investigator attempts to fill this gap, while adding knowledge to the Self Compassion and Academic Procrastination fields. While selecting independent variables, several factors were considered. Investigators examined

intensively the researches on Academic Procrastination to find out the variables related with Academic Procrastination. Through analysis of the research findings show that there are several cognitive and affective variables which influences Academic Procrastination of an individual. The investigator mainly focuses on variables which reduces Academic Procrastination. Cognitive Dissonance is selected as a cognitive variable. According to Cognitive Dissonance theory, an individual can experience psychological tension or Dissonance when new knowledge or information is incongruent with previously acquired knowledge. Festinger (1957) stated the theory of Cognitive Dissonance occurs when a person's attitudes contradict other attitudes or behaviors. Here the variable defines small amount of dissonance will reduce Academic Procrastination.

### **Objectives of the Study**

1. To find out the extent of Cognitive Dissonance, Self Compassion (Total score and Component wise) and Academic Procrastination among higher secondary school students of Kerala
2. To find out whether there exists any significant difference in Cognitive Dissonance, Self Compassion (total score and component wise) and Academic Procrastination among higher secondary school students based on relevant sub groups viz. gender, locale, type of management and stream of their study.
3. To find out the main effects of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students for the total sample and relevant sub groups.

4. To find out the first order interaction effects of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students for the total sample and relevant sub groups.
5. To develop regression equation to predict Academic Procrastination from Cognitive Dissonance and Self Compassion.
6. To develop regression equation to predict Academic Procrastination from Self Kindness, Common Humanity and Mindfulness.

### **Hypotheses of the Study**

1. There exist significant gender difference in the mean scores of Cognitive Dissonance, Self Compassion (total score and component wise) and Academic Procrastination among higher secondary school students.
2. There exist significant locale difference in the mean scores of Cognitive Dissonance, Self Compassion (total score and component wise) and Academic Procrastination among higher secondary school students.
3. There exist significant management difference in the mean scores of Cognitive Dissonance, Self Compassion (total score and component wise) and Academic Procrastination among higher secondary school students.
4. There exist significant difference in the mean scores of Cognitive Dissonance, Self Compassion (total score and component wise) and Academic Procrastination among higher secondary school students based on stream of study.

5. The main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for total sample.
6. The main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for boys.
7. The main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for girls.
8. The main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for rural students.
9. The main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for urban students.
10. The main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for government students.
11. The main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for aided students.
12. The main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for HSE students.

13. The main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for VHSE students
14. The first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for total sample.
15. The first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for boys.
16. The first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for girls.
17. The first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for rural students.
18. The first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for urban students.
19. The first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for government students.
20. The first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for aided students.

21. The first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for HSE students.
22. The first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for VHSE students
23. There is significant individual and combined contribution of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students of Kerala for total sample.
24. There is significant individual and combined contribution of Self Kindness, Common Humanity and Mindfulness on Academic Procrastination among higher secondary school students of Kerala for total sample.

### **Method Used**

The present study is aimed to investigate the influence of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students of Kerala. Survey method was used by the investigator to find out the influence of independent variables on dependent variable.

### **Tools Used**

Collection of relevant data is an important aspect of any research work. The selection of suitable tool is of vital importance for a successful research.



For the present study, the investigator used three tools for collecting data. All of them are constructed and standardized by the investigator. The tools used for the present study are the following.,

1. Cognitive Dissonance Scale (Koya M P & Shimimol P S, 2015)
2. Self Compassion Scale (Koya M P & Shimimol P S, 2015)
3. Academic Procrastination Scale (Koya M P & Shimimol P S, 2015)

Detailed description of the construction of each scale is given below under the following headings.

- Planning of the scale
- Preparation of the scale
- Tryout of the preliminary scale
- Item analysis
- Finalization of the scale

### **Cognitive Dissonance Scale:**

#### ***Planning of the scale***

The first step in the construction of the scale is planning. The present study is an attempt to find out the level of Cognitive Dissonance among higher secondary school students. Hence the investigator attempts to develop a scale on Cognitive Dissonance among higher secondary school students on the basis of objectives of the study by discussing with the supervising teacher, informal discussion with teachers, practitioner and experts in the field of education and after a crucial analysis of

review of related literature. From the review investigator identified the theoretical constructs of Cognitive Dissonance. Investigator also searched existing tools for measuring Cognitive Dissonance. Studies used interview, opinionnaire, scale etc. It was found that most of them were developed and used for measuring Cognitive Dissonance in psychological and management context. However, the investigator could not find out any instrument used for measuring Cognitive Dissonance in Indian Context. So investigator herself developed a Cognitive Dissonance scale. It includes two parts. Since Cognitive Dissonance is the inconsistency between one's belief and Actions or attitude and behavior or two contradicting attitudes, beliefs and knowledge (these are called elements). So we have to measure Cognitive Dissonance, provide two different sections of statements which contradicting or supporting each other. The objective is to measure the consistency or inconsistency between the above mentioned elements. Thus therefore there is a need to develop two categories or sections of statements. The two sections are Part A and part B. part A consists of statements regarding the belief, knowledge & attitudes related to academics. Part B consists of contradictory actions to the statements of Part A.

### ***Preparation***

The draft scale composed of three parts namely personal information, Section A and Section B. Personal information is meant to collect general data name of the student, name of the school, locale, type of management, subject and gender. Section A consists of 32 items based on the academic activities and section B consists of 32 items contradicting the section A's items or supporting items. So total 64 items were drafted. The investigator wrote all items by the help of supervising

teacher. The items were subjected to expert criticism. Then some of the items were deleted and some were modified. The brief report on the two sections described under below

***Section A***

It includes some beliefs or knowledge or attitudes with two responses strongly agree or disagree.

***Section B***

It includes some actions or beliefs or knowledge contradicting or supporting the first 32 items with responses always, sometimes and never.

***Scoring Procedure***

***Section A***

All the 32 items included in the first part is in positive form. Students are asked to mark their response against the response indicators namely agree and disagree. A score of '1' is given to agree and a score of '0' is given to disagree.

***Section B***

Items in section B corresponds to the items in section A. Section B consists of 32 statements including 20 positive items and 12 negative items. For each item 3 options were given namely always, sometimes, never. For positive items a score of 3,2,1 is given for always, sometimes and never respectively. For negative items

scoring is reversed. Those who score high on the total scale indicates high Cognitive Dissonance.

Based on the response in section A the scoring of section B varies.

If the response in section A is **agree**

An item with score “1” in section A, for positive item the scoring in Section B is 3,2,1; for negative item scoring is 1,2,3. For scoring in such a manner section B includes 20 positive and 12 negative items.

*Illustration:*

**Positive item**

*Section A*

For achieving good academic excellence a student must attend all classes regularly.

*Section B*

Agree	Disagree
<b>1</b>	<b>0</b>

I cannot attend some classes as I spend time to have fun with friends.

Always	Sometimes	Never
<b>3</b>	<b>2</b>	<b>1</b>

**Negative item**

*Section A*

Exercise is essential for good health

Agree	Disagree
<b>1</b>	<b>0</b>

*Section B*

I regularly exercise

Always	Sometimes	Never
1	2	3

**Positive and negative item numbers listed below**

Positive 1,2,4,6,8,9,10,11,12,13,15,18,19,20,22,24,25,26,28,30

Negative 3,5,7,14,16,17,21,23,27,29,31,32

If the response in section A is **disagree**

An item with score zero in section A, for positive items in section B a score of 3,2,1 is given for always, sometimes and never, for negative items scoring is 1,2,3. For scoring in such a manner section B includes 12 positive items and 20 negative items.

Illustration:

**Negative item**

*Section A*

For achieving good academic excellence a student must attend all classes regularly.

Agree	Disagree
1	<b>0</b>

*Section B*

I cannot attend some classes as I spend time to have fun with friends.

Always	Sometimes	Never
1	2	3

**Positive item**

*Section A*

Exercise is essential for good health

Agree	Disagree
1	<b>0</b>

*Section B*

I regularly exercise

Always	Sometimes	Never
3	2	1

Positive and negative item numbers listed below

Positive 3,5,7,14,16,17,21,23,27,29,31,32

Negative 1,2,4,6,8,9,10,11,12,13,15,18,19,20,22,24,25,26,28,30

### ***Pilot testing***

The draft scale was administered to representative group of 390 higher secondary school students. Due representation was given to different subsample while selecting the sample. Incomplete response sheets were discarded. After random rejection, the sample size was fixed as 370. The response of each item by all the students in the sample were scored and subjected to item analysis. The draft version of the Cognitive Dissonance scale (Malayalam & English) is presented as Appendix-I & II

### **Item Analysis**

Item analysis is done using the procedure suggested by Likert(1932). The responses collected from the 370 students were first arranged in ascending order from low scoring students to higher scoring students. The upper 27 percentages and lower 27 percentage of student's responses sheet were taken separately for item analysis. The number of students in lower and upper 27 percentages is 100 each. The responses for each item in lower and upper group were scored and subjected to item analysis. For this the t value for each item were calculated. The mean and standard deviation of each item were calculated separately for lower and upper groups. Items

having the t value above 2.58 were selected for the final version of Cognitive Dissonance Scale. The t values were calculated using the following formula

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{\sigma_1^2}{N_1} + \frac{\sigma_2^2}{N_2}}}$$

Where

$\bar{X}_1$  → mean of the upper group

$\bar{X}_2$  → mean of the lower group

$\sigma_1$  → standard deviation of the upper group

$\sigma_2$  → standard deviation of the lower group

$N_1$  → size of the upper group

$N_2$  → size of the lower group

The t values of each item are presented in Table 1



Table 1

*Data and results of item analysis for Cognitive Dissonance scale*

SI No	High Group		Low Group		t Value	Status(Accepted/ Rejected)
	Mean	SD	Mean	SD		
1	2.74	.562	2.49	.559	3.153	Accepted
2	2.56	.743	2.29	.756	2.547	Accepted
3	2.96	.737	2.72	.683	2.388	Accepted
4	3.51	.745	2.76	1.026	5.914	Accepted
<b>5</b>	<b>2.86</b>	<b>.620</b>	<b>2.84</b>	<b>.692</b>	<b>.215</b>	<b>Rejected*</b>
6	2.82	.575	2.49	.674	3.724	Accepted
7	3.02	.531	2.55	.796	4.910	Accepted
8	3.59	.605	2.96	.898	5.819	Accepted
9	2.90	.611	2.48	.659	4.673	Accepted
10	2.97	.413	2.49	.611	6.505	Accepted
11	2.70	.745	2.36	.612	3.526	Accepted
12	2.55	.626	2.28	.653	2.987	Accepted
13	3.00	.921	2.41	.842	4.728	Accepted
14	2.99	.948	2.25	1.058	5.210	Accepted
15	2.72	.668	2.35	.716	3.779	Accepted
16	2.60	.636	2.22	.524	4.614	Accepted
17	2.81	.813	2.55	.796	2.285	Accepted
18	2.39	.777	1.96	.777	3.912	Accepted
19	2.72	.653	2.19	.692	5.573	Accepted
20	3.12	.640	2.48	.858	5.977	Accepted
21	2.81	1.070	2.07	.935	5.208	Accepted
<b>22</b>	<b>2.35</b>	<b>.672</b>	<b>2.27</b>	<b>.566</b>	<b>.910</b>	<b>Rejected*</b>
23	3.29	.820	2.96	1.014	2.530	Accepted
24	2.95	.730	2.60	.791	3.251	Accepted
25	2.63	.630	2.28	.668	3.812	Accepted
26	2.61	.549	2.39	.530	2.885	Accepted
27	3.02	.619	2.68	.750	3.494	Accepted
28	2.89	.447	2.71	.656	2.268	Accepted
29	2.52	.731	2.26	.774	2.442	Accepted
30	2.80	.739	2.19	.631	6.281	Accepted
<b>31</b>	<b>2.48</b>	<b>.674</b>	<b>2.31</b>	<b>.692</b>	<b>1.760</b>	<b>Rejected*</b>
32	2.79	.686	2.44	.701	3.569	Accepted

\*Denotes the rejected item

### **Finalization of the scale**

Item which critical ratio greater than **2.58** the tabled value of 't' required for significance level at .01 were selected for the final scale. Thus from the total 32 items, 29 items were selected for the final scale.

A copy of the final version of the tool Cognitive Dissonance scale (Malayalam and English version) are appended as Appendices III and IV respectively.

### **Establishment of Validity and Reliability**

In the words of Donald H Mc Burney “ validity is an indication of accuracy in terms of the extent to which a research conclusion corresponds with reality. “ Validity of the present scale was ensured using face validity”. A test is said to have face validity when it appears to measure whatever the author mind, what he thought he was measuring (Garret 2005 p.355). Initially validity of the tool was established using face validity and content validity were established in consultation with experts. For establishing criterion related validity the scores obtained for a representative group of 40 higher secondary school students were correlated with an external independent criteria Emotional Dissonance scale (Abraham, 1998) which is suitable for students. The validity coefficient obtained is 0.52.

The reliability of the scale was established using Cronbach's alpha,  $\alpha$  which is the most common measure of reliability. Cronbach's alpha is calculated measuring splitting data into every possible way and computing the correlation coefficient for each split. The average of these values is equivalent to chronbach's

alpha. The chronbach's alpha obtained for the Cognitive Dissonance is 0.64. Also reliability of Cognitive Dissonance Scale established using test retest method. The reliability value of Cognitive Dissonance scale is 0.61. Final version of the tool in English and Malayalam and its response sheet is presented as appendix V, VI and VII respectively.

### **Self Compassion Scale**

The tool Self Compassion scale is constructed and standardized by the investigator with the help of supervising teacher. Detailed description of the construction of the scale is given below.

#### **Planning of the scale**

The present study is an attempt to find out the level of Self Compassion among higher secondary school students. Hence the investigator attempts to develop a scale on Self Compassion among higher secondary school students on the basis of objectives of the study by discussing with the supervising teacher, informal discussion with teachers, practitioner and experts in the field of education and after a crucial analysis of review of related literature. From the review investigator identified the theoretical constructs of Self Compassion. Investigator also searched existing tools for measuring Self Compassion. Some foreign tools are available. Which are not suitable to adopt in Indian context. But investigator already decided to prepare the Self Compassion scale by herself. Self Compassion scale was developed by the investigator with the help of her supervising teacher based on Self Compassion theory by Neff(2003). According to this theory the components of Self

Compassion are Self kindness, common humanity and mindfulness. Description of each of these components is given in the following.

### ***Self kindness***

Self-kindness refers to the tendency to be caring and understanding with oneself rather than being harshly critical or judgmental. Self Compassion entails not being self-critical when one's expectations are not met and not being harmful to individual's ego in order to make achievements. Instead, Self Compassion suggests the individual should encourage his/her ego gently and patiently to change behaviors. Self Compassion entails being warm towards oneself when encountering pain and personal shortcomings, rather than ignoring them or hurting oneself with self-criticism. That means reality is accepted with sympathy and kindness, greater emotional equanimity is experienced.

Item numbers 1 to 19 come under this category. 11negative items and 8 positive items prepared for this component.

Illustration:

When I score low marks in exam I blame myself as a poor student. (Negative)

I care myself even at the time of hardship (Positive)

### ***Common humanity***

Recognizing that suffering and personal inadequacy is part of the shared human experience – something that we all go through rather than being something that happens to “me” alone. Awareness of common humanity, the second dimension

of Self Compassion, is seeing one's happy or painful experiences as not personal, but as all human beings'. The sense of common humanity principal to Self Compassion involves recognizing that all humans are imperfect, make mistakes, and engage in unhealthy behaviors. Self Compassion connects one's own flawed condition to the shared human condition, so that features of the self are considered from a broad, inclusive perspective. Having this kind of awareness, one perceives these experiences as part of the larger human experience rather than feeling isolated and alienated from the society and harshly criticizing oneself for failure and suffering experiences. This awareness emphasizes one's relatedness to all other humans and to another individual.

Item numbers 20 to 33 come under this category. 10 negative and 4 positive items prepared for this component.

#### Illustration

When I fail in exams I console myself by saying other students may have faced such a situation. (Positive)

I worry my teachers always blame me. (Negative)

#### ***Mindfulness***

Self Compassion also requires taking a balanced approach to our negative emotions so that feelings are neither suppressed nor exaggerated. Mindfulness is a non-judgmental, receptive mind state in which one observes thoughts and feelings as they are, without trying to suppress or deny them. Mindfulness, the third component of Self Compassion, is a pre-conceptual awareness that allows individual to accept

life's most stressful and painful emotions without being carried away by them. Mindfulness is a state of balanced awareness that one's feelings and thoughts are observed without avoiding or trying to change them, without exaggeration and prejudice. When individuals accept and tolerate their distress and pain, when they are gentle and kind toward themselves, they avoid suppressing their emotions and thoughts. Thus, when they are aware that distress and pain are something all humans experience, they are not trapped by over-identification. Therefore, Self Compassion functions as an adaptive strategy for emotion-organizing through decreasing negative emotions but creating more positive emotions of kindness and relatedness (Neff, Hsieh, & Dejitterat, 2005).

Item numbers 34 to 55 come under this category. 7 negative items and 15 positive items prepared for this component.

Illustration

My attention easily diverts (Negative)

I feel pleasure even when I have to perform difficult task (Positive)

### ***Preparation***

The draft scale composed of two parts namely personal information, statements part. Personal information is meant to collect general data name of the student, name of the school, locale, type of management, subject and gender. Statements based upon the above mentioned components. The investigator wrote all items by the help of supervising teacher. The items were subjected to expert criticism. Then some of the items were deleted and some were modified. The draft scale

consists of 55 items of which 27 items are positive and 28 items are negative.

Positive and negative items listed below.

Type of items	Question numbers
Positive items	2,3,6,7,10,13,16,17,20,21,22,23,34,35,36,37,38,39, 40, 42,43,45,46,48,51,53,54
Negative items	1,4,5,8,9,11,12,14,15,18,19,24,25,26,27,28,29,30,31,32,33,41, 44,47,49,50,52,55

### **Scoring Procedure**

As the present scale is a Likert type scale, responses should be made in a five point scale as Strongly agree, Agree, Undecided, Disagree and strongly disagree. For the positive statements the respective score of the five responses are 5,4,3,2, and1. For the negative statements the scoring is done in the reverse order. The scores on all the items are added to get the total score on Self Compassion. The draft version of Self Compassion Scale (Malayalam & English) is presented in appendix V & VI

### **Pilot testing**

The draft scale was administered to representative group of 390 higher secondary school students. Due representation was given to different subsample while selecting the sample. Incomplete response sheets were discarded. After random rejection, the sample size was fixed as 370. The response of each item by all the students in the sample were scored and subjected to item analysis. The procedure of the item analysis is described below.

The 370 response sheets obtained were scored and the total score for each sheets was calculated. Then these were arranged in descending order of the total score and the lowest and highest 27% of the 370 sheets (100 sheets each) were separated.

The mean and standard deviation of the scores obtained for each items for the lower and higher group were calculated separately. The critical ratios for each item were calculated using the following formula.

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{\sigma_1^2}{N_1} + \frac{\sigma_2^2}{N_2}}}$$

Where

$\bar{X}_1 \rightarrow$  mean of the Upper group

$\bar{X}_2 \rightarrow$  mean of the lower group

$\sigma_1 \rightarrow$  standard deviation of the upper group

$\sigma_2 \rightarrow$  standard deviation of the lower group

$N_1 \rightarrow$  size of the upper group

$N_2 \rightarrow$  size of the lower group



The t values of each item are presented in Table 2

Table 2

*Data and results of item analysis for Self Compassion scale*

Sl No	High Group		Low Group		t Value	Status(Accepted/Rejected)
	Mean	SD	Mean	SD		
1	3.92	1.308	1.96	1.163	11.200	Accepted
2	3.33	1.450	2.64	1.367	3.462	Accepted
3	3.72	1.349	2.72	1.296	5.347	Accepted
4	4.36	1.059	3.18	1.403	6.714	Accepted
5	4.12	1.289	3.06	1.324	5.735	Accepted
6	4.79	.574	4.30	.980	4.316	Accepted
7	4.41	.780	3.83	.922	4.804	Accepted
8	3.58	1.327	2.19	1.161	7.884	Accepted
9	2.08	1.203	1.43	.728	4.621	Accepted
<b>10</b>	<b>3.20</b>	<b>1.279</b>	<b>2.92</b>	<b>1.169</b>	<b>1.616</b>	<b>Rejected*</b>
11	3.92	1.253	2.66	1.257	7.100	Accepted
12	2.76	1.296	1.94	1.127	4.776	Accepted
13	3.23	1.510	2.62	1.413	2.950	Accepted
14	3.68	1.340	2.23	1.136	8.255	Accepted
15	2.76	1.327	1.86	1.025	5.368	Accepted
<b>16</b>	<b>3.00</b>	<b>1.407</b>	<b>3.44</b>	<b>1.234</b>	<b>-2.351</b>	<b>Rejected*</b>
17	4.61	.764	3.32	1.309	8.509	Accepted
18	4.15	1.123	2.58	1.312	9.093	Accepted
19	3.90	1.219	2.73	1.230	6.758	Accepted
<b>20</b>	<b>2.87</b>	<b>1.475</b>	<b>3.26</b>	<b>1.383</b>	<b>-1.929</b>	<b>Rejected*</b>
<b>21</b>	<b>3.35</b>	<b>1.351</b>	<b>3.51</b>	<b>1.267</b>	<b>-.864</b>	<b>Rejected*</b>
22	4.17	.922	3.55	1.282	3.926	Accepted
<b>23</b>	<b>2.91</b>	<b>1.408</b>	<b>3.43</b>	<b>1.174</b>	<b>-2.837</b>	<b>Rejected*</b>
24	4.23	1.043	2.87	1.315	8.101	Accepted
25	4.29	1.066	2.68	1.332	12.394	Accepted
26	4.50	.810	2.68	1.332	11.671	Accepted

Sl No	High Group		Low Group		t Value	Status(Accepted/ Rejected)
	Mean	SD	Mean	SD		
27	3.88	1.208	2.39	1.145	8.951	Accepted
28	3.66	1.365	2.00	1.064	9.593	Accepted
29	3.33	1.450	1.83	1.025	8.447	Accepted
30	4.54	.846	2.56	1.274	12.949	Accepted
31	4.38	.874	2.61	1.302	11.290	Accepted
32	3.35	1.351	2.09	1.016	7.453	Accepted
33	4.22	1.060	2.47	1.291	10.480	Accepted
34	4.26	.895	3.48	1.078	5.569	Accepted
35	4.36	.689	3.50	1.106	6.601	Accepted
36	4.10	1.040	3.39	1.254	4.358	Accepted
37	4.20	.910	3.53	1.235	4.368	Accepted
<b>38</b>	<b>3.86</b>	<b>1.155</b>	<b>3.56</b>	<b>1.250</b>	<b>1.763</b>	<b>Rejected*</b>
39	4.18	.892	3.73	1.205	3.002	Accepted
40	3.73	1.270	3.06	1.221	3.803	Accepted
<b>41</b>	<b>3.14</b>	<b>1.247</b>	<b>3.04</b>	<b>1.205</b>	<b>.576</b>	<b>Rejected*</b>
42	3.70	1.078	2.81	1.300	5.270	Accepted
43	4.07	.924	3.45	1.359	3.773	Accepted
44	3.04	1.263	1.95	1.038	6.667	Accepted
45	4.26	.848	3.44	1.305	5.268	Accepted
46	4.21	.902	3.82	1.067	2.791	Accepted
<b>47</b>	<b>2.79</b>	<b>1.380</b>	<b>2.40</b>	<b>1.137</b>	<b>2.181</b>	<b>Rejected*</b>
48	4.34	.728	3.99	1.078	2.691	Accepted
49	3.41	1.240	2.72	1.181	4.029	Accepted
50	3.38	1.213	2.04	1.109	8.153	Accepted
51	4.61	.764	3.97	1.283	4.286	Accepted
52	3.62	1.270	2.45	1.290	6.464	Accepted
53	4.48	.797	3.80	1.082	5.058	Accepted
54	4.65	.520	3.69	1.161	7.548	Accepted
55	3.86	1.198	2.25	1.158	9.664	Accepted

\*Denotes the rejected items

### **Finalization of the scale**

Item which critical ratio greater than **2.58** the tabled value of 't' required for significance level at .01 were selected for the final scale. Thus from the total 55 items, 47 items were selected for the final scale, in which 21 items are positive and 26 items are negative.

A copy of the final version of the tool Self Compassion scale (Malayalam and English version) are appended as Appendices VII and VIII respectively.

### **Reliability**

Reliability of the test is the ability to yield consistent result from one set of measures to another. According to Best and Khan (2001), "Reliability is the degree of consistency that the instrument of procedure demonstrates: whatever it is measuring it does so consistently".

The reliability of the scale was established using cronbach's alpha,  $\alpha$  which is the most common measure of reliability. Cronbach 's alpha is calculated measuring splitting data into every possible way and computing the correlation coefficient for each split. The average of these values is equivalent to chronbach 's alpha. The chronbach's alpha obtained for the Self Compassion is 0.89. Also reliability of Self Compassion Scale established using test retest method. The reliability value of Self Compassion scale is 0.69.

## **Validity**

Initially validity of the tool was established using face validity and content validity were established in consultation with experts. For establishing criterion related validity the scores obtained for a representative group of 40 higher secondary school students were correlated with an external independent criteria Self Compassion scale (Neff2004) which is suitable for students. The validity coefficient obtained is 0.52.

## **Academic Procrastination scale**

The tool Academic Procrastination scale was constructed and standardized by the investigator with the help of supervising teacher. Detailed description of the construction of the scale is given below.

### ***Planning of the scale***

The present study is an attempt to find out the level of Academic Procrastination among higher secondary school students. Hence the investigator attempts to develop a scale on Academic Procrastination among higher secondary school students on the basis of objectives of the study by discussing with the supervising teacher, informal discussion with teachers, practitioner and experts in the field of education and after a crucial analysis of review of related literature. From the review investigator identified the theoretical constructs of Academic Procrastination. Investigator also searched existing tools used for measuring Academic Procrastination. Some foreign tools are available. Which are not suitable to adopt in Indian context. But investigator already decided to prepare the

Academic Procrastination scale by herself. So investigator herself developed a Academic Procrastination scale.

*Identification of the components of Academic Procrastination*

Academic Procrastination is a voluntary delay of the Completion of an academic task within the expected or desired time frame despite expecting to be worse off for the delay. It is a special form of procrastination that occurs in the academic settings. It involves knowing that one needs to carry out an academic task or undertake an academic activity, such as writing a term paper, studying for examinations, finishing a school related project, or undertaking the weekly reading assignments, but, for one reason or another, failing to motivate oneself to do so within the expected time frame. Review of related literature helped the investigator to have an idea about the nature of the variable and its components. Most of the studies reviewed the investigator identified the components of Academic Procrastination.

Description of each component and example items are given in the following section.

***Evaluation Anxiety***

It is a combination of physiological over arousal tension, fear of failure that occur before or doing test situation.

**Illustration**

I get tensed before exam.( Positive)

When teachers ask questions I answer with confidence. (Negative)

### ***Perfectionism***

It is a personality trait by which a person strives for excessively high performance standards, accompanied by critical self evaluations and concerns regarding others evaluations.

Illustration

I evaluate my works by comparing with others (positive)

I don't postpone project and assignments till the last date for perfection (Negative)

### ***Poor time management***

It is the disability to plan and control how you spend the hours in your day to effectively accomplish your goals. Poor time management can be related to procrastination, as well as problem with self control.

Illustration

I involve entertainment during learning. (Positive)

I can manage time while writing exam so I complete it on time. (Negative)

### ***Dependency and help seeking***

Help seeking is a term that is generally used to refer to the behavior of actively seeking help from other people. It is about communicating with other

people to obtain help in terms of understanding advice, information, treatment and general support in response to a problem or distressing experience.

Illustration

I continuously seek the help of my friends in learning. (Positive)

I take decisions independently. (Negative)

***Lack of Self confidence***

One's degree of confidence is called self confidence, is the trust or faith that have in everyone's abilities. Losing confidence is no longer trusting in the ability to perform. It may be reasonable as the result of past failure to perform, or unreasonable, because one "just has a feeling " about something or having doubt. Those who lack self confidence expect failure, which may lead to the extremes of over achieving or under achieving.

Illustration

The thought others criticize my works I can't complete it. (Positive)

I am confident that things I do alone will success. (Negative)

***Laziness***

Laziness is the habit of spend free time relaxing, when actually want to do complete the work but haven't finished. It is resulting from dislike to do work.

Illustration

When I feel lazy I pretend to be ill. ( Positive)

I concentrate on studies even when my friends indulge in entertainments.

(Negative)

***Lack of Assertion***

Inability or difficulty in expressing feeling or thoughts in right situations in a right way. In some situations we may find ourselves not really expressing how we felt or thought and feeling upset or frustrated with ourselves.

Illustration

I can't answer to the questions even for those I know. (Positive)

I can respond to problems on time. (Negative)

***Peer influence***

It is the influence on a peer group, observers or individual exerts, that encourages others to change their attitudes, values or behavior to conform to groups.

Illustration

I don't aware that friendly talks steal learning time. (Positive)

I try to learn better when my friends secure good marks. (Negative)

***Preparation***

The draft scale composed of two parts namely personal information, statements part. Personal information is meant to collect general data name of the student, name of the school, locale, type of management, subject and gender. Statements based upon the above mentioned components. The investigator wrote all items by the help of supervising teacher. The items were subjected to expert criticism. Then some of the items were deleted and some were modified. The draft scale consists of 65 items of which 33 items are positive and 32 items are negative. Positive and negative items listed below.



Sl No	Components	Question Numbers	Positive items	Negative Items
1.	Evaluation Anxiety	1 to 9	1,3,5,7	2,4,6,8,9
2.	Perfectionism	10 to 17	10,12,13,16,17	11,14,15
3.	Poor time management	18 to 25	19,21,22,24	18,20,23,25
4.	Dependency and help seeking	26 to 33	26,28,30,32	27,29,31,33
5.	Lack of Self confidence	34 to 41	35,37,39	34,36,38,40,41
6.	Laziness	42 to 49	42,44,46,48	43,45,47,49
7.	Lack of assertion	50 to 57	50,52,54,56,57	51,53,55
8.	Peer influence	58 to 65	58,59,61,65	60,62,63,64
	Total	65	33	32

### Scoring Procedure

As the present scale is a Likert type scale, responses should be made in a five point scale as Strongly agree, Agree, Undecided, Disagree and strongly disagree. For the positive statements the respective score of the five responses are 5,4,3,2, and1. For the negative statements the scoring is done in the reverse order. The scores on all the items are added to get the total score on Academic Procrastination. The draft version of Academic Procrastination Scale ( Malayalam & English) is presented in appendix IX & X.

### Pilot testing

The draft scale was administered to representative group of 390 higher secondary school students. Due representation was given to different subsample while selecting the sample. Incomplete response sheets were discarded. After random rejection, the sample size was fixed as 370. The response of each item by all

the students in the sample were scored and subjected to item analysis. The procedure of the item analysis is described below.

The 370 response sheets obtained were scored and the total score for each sheets was calculated. Then these were arranged in descending order of the total score and the lowest and highest 27% of the 370 sheets (100 sheets each) were separated.

The mean and standard deviation of the scores obtained for each items for the lower and higher group were calculated separately. The critical ratios for each item were calculated using the following formula.

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{\sigma_1^2}{N_1} + \frac{\sigma_2^2}{N_2}}}$$

Where

$\bar{X}_1$  → mean of the Upper group

$\bar{X}_2$  → mean of the lower group

$\sigma_1$  → standard deviation of the upper group

$\sigma_2$  → standard deviation of the lower group

$N_1$  → size of the upper group

$N_2$  → size of the lower group

The t values of each item are presented in table 3:

Table 3

*Data and results of item analysis for Academic Procrastination scale:*

SI No	High Group		Low Group		t Value	Status(Accepted/ Rejected)
	Mean	SD	Mean	SD		
1	4.19	1.228	2.80	1.348	7.620	Accepted
2	4.21	1.018	2.87	1.315	8.056	Accepted
<b>3</b>	<b>2.83</b>	<b>1.256</b>	<b>2.51</b>	<b>1.185</b>	<b>1.853</b>	<b>Rejected*</b>
4	3.99	1.202	2.18	1.132	10.965	Accepted
5	4.10	1.142	2.74	1.375	7.609	Accepted
6	4.41	.954	3.15	1.431	7.325	Accepted
7	3.72	1.371	2.55	1.313	6.162	Accepted
8	3.77	1.399	3.23	1.377	2.751	Accepted
<b>9</b>	<b>2.38</b>	<b>1.448</b>	<b>2.53</b>	<b>1.359</b>	<b>-.755</b>	<b>Rejected*</b>
10	4.59	.793	3.26	1.228	9.101	Accepted
11	4.61	.680	2.45	1.250	15.176	Accepted
12	4.56	.857	3.20	1.400	8.287	Accepted
13	4.01	.980	2.76	1.207	8.041	Accepted
<b>14</b>	<b>3.81</b>	<b>1.187</b>	<b>4.02</b>	<b>1.163</b>	<b>-1.264</b>	<b>Rejected*</b>
15	4.05	1.058	3.11	1.278	5.665	Accepted
16	4.24	.911	3.73	1.238	3.318	Accepted
17	4.01	1.00	3.03	1.322	5.913	Accepted
18	4.04	1.247	1.89	1.004	13.432	Accepted
19	4.13	1.022	3.66	1.191	2.995	Accepted
20	4.41	.877	3.62	1.229	5.232	Accepted
21	4.24	.976	2.61	1.230	10.382	Accepted
22	3.92	1.228	3.35	1.184	3.341	Accepted
23	3.77	1.205	3.02	1.303	4.227	Accepted
24	3.68	1.197	3.14	1.263	3.103	Accepted
25	4.00	.932	2.52	1.096	10.286	Accepted
26	3.90	1.168	2.21	1.149	10.318	Accepted
27	4.38	1.003	2.71	1.351	9.927	Accepted
28	4.29	.935	2.41	1.164	12.589	Accepted
29	3.91	1.164	2.02	.932	12.674	Accepted
<b>30</b>	<b>3.77</b>	<b>1.090</b>	<b>3.53</b>	<b>1.259</b>	<b>1.441</b>	<b>Rejected*</b>
31	4.00	1.073	3.29	1.233	4.343	Accepted

SI No	High Group		Low Group		t Value	Status(Accepted/ Rejected)
	Mean	SD	Mean	SD		
32	3.59	1.272	2.20	1.172	8.036	Accepted
33	3.33	1.525	1.97	1.096	7.243	Accepted
34	4.49	.785	4.00	1.092	3.644	Accepted
35	3.93	1.047	2.18	1.226	10.856	Accepted
36	3.52	1.541	2.13	1.160	7.207	Accepted
37	4.05	1.149	3.00	1.295	6.065	Accepted
<b>38</b>	<b>2.56</b>	<b>1.166</b>	<b>3.41</b>	<b>1.181</b>	<b>-5.120</b>	<b>Rejected*</b>
<b>39</b>	<b>2.41</b>	<b>1.264</b>	<b>2.44</b>	<b>1.274</b>	<b>-.167</b>	<b>Rejected*</b>
40	3.68	1.238	2.12	1.208	9.017	Accepted
41	3.41	1.264	2.04	1.171	7.950	Accepted
42	3.01	1.425	1.71	.924	7.654	Accepted
43	2.79	1.409	1.68	.803	6.845	Accepted
44	2.74	1.338	2.14	1.198	3.341	Accepted
<b>45</b>	<b>2.24</b>	<b>1.311</b>	<b>2.22</b>	<b>1.203</b>	<b>.112</b>	<b>Rejected*</b>
<b>46</b>	<b>1.67</b>	<b>.888</b>	<b>2.02</b>	<b>1.206</b>	<b>-2.337</b>	<b>Rejected*</b>
47	4.10	1.159	2.18	1.209	11.463	Accepted
48	4.11	1.063	2.55	1.192	9.767	Accepted
49	4.45	.783	2.65	1.218	12.433	Accepted
50	4.16	.950	2.56	1.250	10.190	Accepted
<b>51</b>	<b>2.95</b>	<b>1.417</b>	<b>2.62</b>	<b>1.354</b>	<b>1.684</b>	<b>Rejected*</b>
52	4.00	1.005	2.54	1.141	9.603	Accepted
53	3.95	1.095	2.19	1.134	11.162	Accepted
54	3.58	1.288	2.08	1.134	8.738	Accepted
55	3.34	1.365	1.91	.996	8.463	Accepted
56	3.03	1.473	1.68	1.053	7.455	Accepted
57	3.22	1.488	1.59	.965	9.191	Accepted
58	2.89	1.607	1.70	1.096	6.116	Accepted
59	3.81	1.212	2.24	1.248	9.025	Accepted
<b>60</b>	<b>3.34</b>	<b>1.273</b>	<b>3.71</b>	<b>1.289</b>	<b>-2.042</b>	<b>Rejected*</b>
61	3.22	1.495	2.70	1.219	2.697	Accepted
62	3.50	1.367	2.54	1.167	5.341	Accepted
63	4.40	.974	3.71	1.209	4.445	Accepted
64	4.36	.905	2.80	1.263	10.039	Accepted
65	4.29	.902	2.33	1.231	12.840	Accepted

\*Denotes the rejected items

### **Finalization of the scale**

Item which critical ratio greater than **2.58** the tabled value of 't' required for significance level at .01 were selected for the final scale. Thus from the total 65 items, 55 items were selected for the final scale, in which 29 items are positive and 26 items are negative.

A copy of the final version of the tool Academic Procrastination scale (Malayalam and English version) are appended as Appendices XI and XII respectively.

### **Reliability**

Reliability of the test is the ability to yield consistent result from one set of measures to another. According to Best and Khan (2001), "Reliability is the degree of consistency that the instrument of procedure demonstrates: whatever it is measuring it does so consistently".

The reliability of the scale was established using cronbach's alpha,  $\alpha$  which is the most common measure of reliability. Cronbach 's alpha is calculated measuring splitting data into every possible way and computing the correlation coefficient for each split. The average of these values is equivalent to chronbach 's alpha. The chronbach's alpha obtained for the Academic Procrastination is 0.91.

Also reliability of Academic Procrastination Scale was established using test retest method. The reliability value of Academic Procrastination Scale is 0.61.

**Validity**

Initially validity of the tool was established using face validity and content validity were established in consultation with experts. For establishing criterion related validity the scores obtained for a representative group of 40 higher secondary school students were correlated with an external independent criteria Procrastination Assessment Scale Solomon. S, (1994) which is suitable for students. The validity coefficient obtained is 0.52

**Sample selected for the study**

Higher Secondary school students of Kerala are the population of the study and the sample for the present study is collected from this population. As it is impossible to collect data from a large no.of population the study was limited to 1062 higher secondary school students. Investigator made all effort to make the sample the true representation as the population. Due representation as given to strata such as Gender, locale, type of management and Stream of study. Samples were drawn from all districts of Kerala. All samples were selected form XI standard, which is the best representation of higher secondary school students. Stratified random sampling techniques were used to select the sample . Data was collected initially from 1062 higher secondary school students. Response sheets complete in all respect of the different tools were collected and sample size thus reduced to 1001. A ratio 1:1 for gender, 1:1 for type of management and 2:1 for locale and 3:1 for Stream of study were considered while selecting the sample. The details of the sample presented in table.4

Table 4

*List of Schools and number of students for each category*

Sl. No.	Name of the school	Gender		Locale		Type of Management		Steam of study	
		Male	Female	Rural	Urban	Govt.	Aided	HSE	VHSE
1.	EMOR HSS Palad (Malappuram)		52	52			52	52	
2.	Tharakan HSS Angadippuram	20	27		47		47	47	
3.	Govt. Model HSS (Kozhikkode)	20	25		45	45		45	
4.	GVHSS Kasargode	22	25	47		47			47
5.	GHSS, Mullor (Kasargode)	23	27	50		50		50	
6.	GFVHSS, Cheravathoor (Kasargode)	21	27	48		48			48
7.	CHSS, Sivapuram (Kannur)	23	25	48			48	48	
8.	St. Theresa's HSS (Kannur)		47		47		47	47	
9.	Leo XIII <sup>th</sup> HSS (Alappuzha)	23	22		45		45	45	
10.	G.V. Raja HSS (Trivandrum)	22	23		45	45		45	
11.	Amrutha Sanskrit HSS, Parippalli, (Kollam)	19	26		45		45	45	
12.	Catholicate HSS (Malappuram)	22	26	48			48	48	
13.	GVHSS for Boys, Thrippunithara (Ernakulam)	47			47	47			47
14.	Model Boys VHSS, Vadakkancheri (Thrissur)	47			47		47		47

Sl. No.	Name of the school	Gender		Locale		Type of Management		Steam of study	
		Male	Female	Rural	Urban	Govt.	Aided	HSE	VHSE
15.	GTHSS, Sholayur (Palakkad)	24	25	49		49		49	
16.	GFVHSS, Kaipamangalam (Thrissur)	20	27	47		47			47
17.	SVVHSS, Palemad (Malappuram)	26	30	56			56		56
18.	St. Sebastians HSS Cheenthalar (Iduki)	20	26	46			46	46	
19.	GTHSS, Murikkattukudi (Idukki)	16	28	44		44		44	
20.	Edamuri Govt. HSS Ranni (Pathanamthitta)	21	28	49		49		49	
21.	CMS HSS Mallappally. (Pathanamthitta)	10	39	49			49	49	
	<b>Total</b>	<b>446</b>	<b>555</b>	<b>633</b>	<b>368</b>	<b>471</b>	<b>530</b>	<b>700</b>	<b>301</b>

Out of the total sample of 1001, 446 were male and 555 were female. 633 students belongs to rural schools and 368 students belongs to urban schools. 471 higher secondary school students were selected from Government schools while 530 samples were selected from Aided schools. 700 students belongs to HSE batch, and 301 students belongs to VHSE batch. The final break up of the sample is presented in Table 5



Table 5

*Final break up of the sample*

Total Sample (1001)							
Gender		Locale		Type of Management		Stream	
Male	Female	Rural	Urban	Govt.	Aided	HSE	VHSE
446	555	633	368	471	530	700	301

**Data Collection procedure**

The data were collected from the sample drawn. As the first step investigator visited the proposed school to sought permission for data collection, data were collected from each school. The mode of responding to the tools was briefed to the students before administering. All the three tools were administered to XI standard class room in selected schools. Necessary directions were given to students while administering the tools. It was difficult to administer all the three tools at a stretch. Hence, investigator administered two tools in one day and remaining tool in the next day. All the students enthusiastically filled up the response sheets. Investigator ensured that students are responding to all the items. Necessary time was allotted to respond each tool. It took three periods of 45 minutes to administer all the tools. The data collected were consolidated and codified suitably for the analysis.

### **Statistical Techniques used for the study**

For testing the hypotheses formulated, different statistical techniques were used. As the first step of analysis, the independent variables were classified into various levels.

#### **Classification Techniques**

Two independent variables were selected for the present study. These variables were classified into three levels each. The classification technique of each independent variable are presented in the following selection.

##### **Classification of Cognitive Dissonance**

The data collected using Cognitive Dissonance scale were classified in to three groups namely high Cognitive Dissonance group, moderate Cognitive Dissonance group and low Cognitive Dissonance group. For this the mean and standard deviation of the scores obtained in the Cognitive Dissonance were calculated first. Students who fall above the mean + SD were considered as high Cognitive Dissonance group, students who scores under mean – SD were considered as low Cognitive Dissonance group and students coming in between mean –SD and mean + SD were categorized as moderate Cognitive Dissonance group.

##### **Classification of Self Compassion**

The data collected using Self Compassion scale were classified in to three groups namely high Self Compassion group, moderate Self Compassion group and low Self Compassion group. For this the mean and standard deviation of the scores

obtained in the Self Compassion were calculated first. Students who fall above the mean + SD were considered as high Self Compassion group, students who scores under mean – SD were considered as low Self Compassion group and students coming in between mean –SD and mean + SD were categorized as moderate Self Compassion group.

### **Statistical Techniques Used**

For analyzing the data, different statistical techniques were used. The statistical techniques used in the present study can be divided into four categories. The statistical techniques used in the present study is summerised as figure

#### **Basic Descriptive Statistics**

Basic descriptive statistics such as mean, median, mode, SD, skeweness and kurtosis of each of the independent variables and dependent variables were calculated. Descriptive Statistics were calculated for total sample and separately for male, female, government, aided, rural and urban secondary school students. Descriptive statistics were calculated to identify the nature of the distribution of independent variables and dependent variables.

#### **Mean difference analysis**

As a preliminary analysis gender difference, locality difference and difference based on type of management of schools were calculated for Cognitive Dissonance , Self Compassion and Academic Procrastination. Test of significance of difference between two means of large independent sample were used to compare the mean scores.

### **3x3 Factorial ANOVA**

The main effect and interaction effect of two independent variables on the dependent variable were estimated using three way analysis of variance. Three fixed factors were identified for each of the independent variable . Cognitive Dissonance were classified into high , average and low category. The levels of Self Compassion were high, moderate and low Self Compassion. Hence 3x3 ANOVA, in which two independent variables at three levels, were used to analyse data. Data were analysed for total sample and separately for male, female, urban, rural, government, and aided higher secondary school students. The significant F value were subjected to Scheffe's test of post hoc comparison.

### ***Multiple Regression Analysis***

To predict the individual and joint contribution of independent variables on the dependent variables, multiple regression analysis was used. Multiple regression was done using enter method in which all independent variables were entered simultaneously. A regression equation was also developed to predict the dependent variable from the select independent variables.

All statistical analysis has been done using SPSS for windows version 21.

A summary of the methodology used in the present study is presented in a concept map as figure: 6

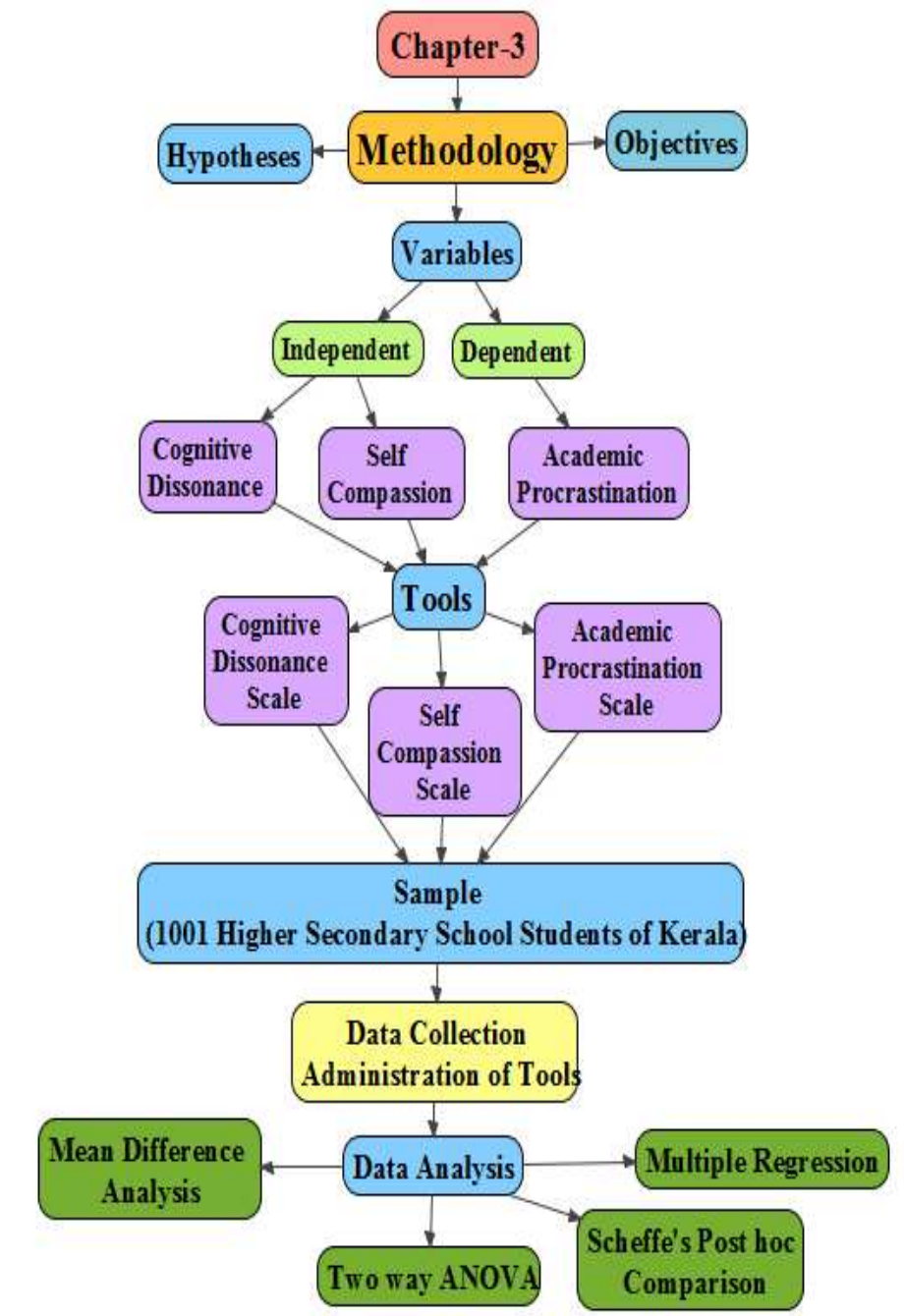


Figure :6 : Summary of methodology

**ANALYSIS AND INTERPRETATION**

- *Preliminary analysis*
- *Investigation of group difference*
- *Analysis of variance*
- *Multiple regression analysis*
- *Findings*
- *Tenability of Hypotheses*

## **ANALYSIS AND INTERPRETATION**

The present study is envisaged to find out the influence of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students. For the analysis of the present data, relevant statistical techniques such as basic descriptive statistics, test of significance of difference between two means, 3x3 factorial ANOVA and multiple regression analysis were used. The statistical analysis was done based on the objectives set for the study. On the basis of results of the statistical processing, the investigator tested the following hypotheses formulated.

### **Hypotheses of the Study**

1. There exist significant gender difference in the mean scores of Cognitive Dissonance, Self Compassion (total score and component wise) and Academic Procrastination among higher secondary school students.
2. There exist significant locale difference in the mean scores of Cognitive Dissonance, Self Compassion (total score and component wise) and Academic Procrastination among higher secondary school students.
3. There exist significant management difference in the mean scores of Cognitive Dissonance, Self Compassion (total score and component wise) and Academic Procrastination among higher secondary school students.
4. There exist significant difference in the mean scores of Cognitive Dissonance, Self Compassion (total score and component wise) and Academic Procrastination among higher secondary school students.

Academic Procrastination among higher secondary school students based on stream of study.

5. The main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for total sample.
6. The main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for boys.
7. The main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for girls.
8. The main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for rural students.
9. The main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for urban students.
10. The main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for government students.
11. The main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for aided students.



12. The main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for HSE students.
13. The main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for VHSE students
14. The first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for total sample.
15. The first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for boys.
16. The first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for girls.
17. The first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for rural students.
18. The first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for urban students.
19. The first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for government students.

20. The first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for aided students.
21. The first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for HSE students.
22. The first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for VHSE students
23. There is significant individual and combined contribution of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students of Kerala for total sample.
24. There is significant individual and combined contribution of Self Kindness, Common Humanity and Mindfulness on Academic Procrastination among higher secondary school students of Kerala for total sample.

The whole analysis done for the present study is described under the following heads.

- ✓ Preliminary analysis
- ✓ Investigation of group difference
- ✓ Analysis of variance
- ✓ Multiple regression analysis

### **Preliminary analysis**

A preliminary analysis of the scores of the independent variables and dependent variable of the present study was done to know the basic properties of the variables for the total sample and subsample based on gender, locale, type of management and stream of study. This analysis was taken up with a view that the findings will help to make more valid interpretation of statistical indices of the study.

The score distribution of the independent variables namely Cognitive Dissonance, Self Compassion and the dependent variable Academic Procrastination were studied for their normality. For this important statistical constants were calculated separately for total sample and sub samples based on gender, locale, type of management an stream of study. The important statistical indices namely mean, median, mode, standard deviation, skewness and kurtosis of the score distribution for Cognitive Dissonance, Self Compassion and Academic Procrastination were calculated and presented in table 4,5,and 6 respectively.

#### **I. Extent of Cognitive Dissonance, Self Compassion and Academic Procrastination among higher secondary school students of kerala**

The extent of Cognitive Dissonance, Self Compassion and Academic Procrastination among higher secondary school students of kerala was established by using mean. It is given in table 6, 7,8 respectively.

Table 6

*Important statistical constants for the score distribution of Cognitive Dissonance for total sample and subsamples based on gender, locale , type of management and stream of study.*

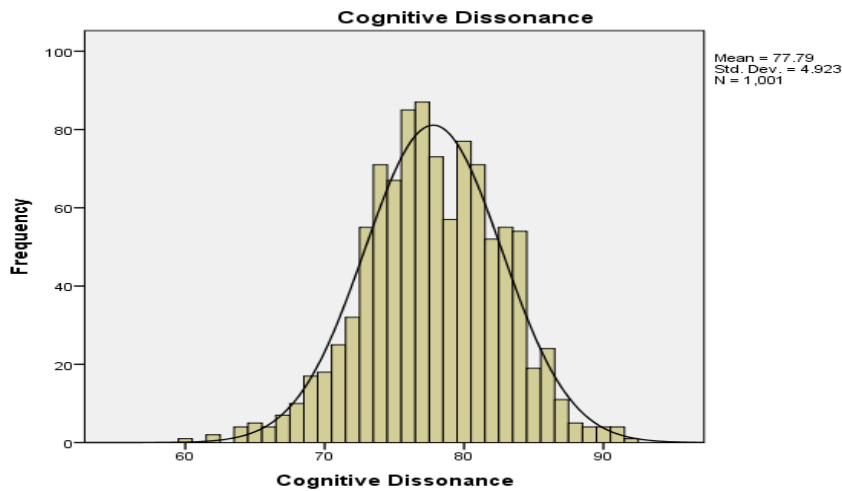
Sample	N	Mean	Median	Mode	SD	Skewness	Kurtosis
Total	1001	77.79	78	77	4.92	-.14	.12
Male	446	77.48	78	78	5.29	-.15	.12
Female	555	78.03	78	77	4.59	-.08	-.05
Govt	471	78.58	78	75	4.79	-.15	.13
Aided	530	77.08	77	76	4.93	-.13	.13
Rural	633	77.78	77	76	4.59	.00	-.03
Urban	368	77.80	78	74	5.44	-.31	.10
HSE	700	77.33	77	76	4.92	-.16	.10
VHSE	301	78.83	79	81	4.75	-.07	.04

From the table 6 Mean, Median and Mode of Cognitive Dissonance for total sample found to be 77.79, 78, 77 respectively. Mean, median, mode are approximate equal. SD of the scores of Cognitive Dissonance for the total sample is 4.92. Which means the scores are deviated from the mean scores. The value of skewness and kurtosis found to be -0.14 and .12. here the curve is negatively skewed and it is platy kurtic. The statistical constants of Cognitive Dissonance based on gender, locale, type of management, stream of study can be interpreted similarly.

The extent of Cognitive Dissonance is established by using mean score. It is clear from the table that the mean score of Cognitive Dissonance for total sample is 77.79 which is greater than neutral value (72.5) which means that higher secondary school students have a high Cognitive Dissonance. The mean score obtained for

Cognitive Dissonance based on gender, locale , type of management and stream of study are greater than the neutral value 72.5, which means the subsamples have high Cognitive Dissonance.

A histogram with normal curve representing the distribution of the total scores of Cognitive Dissonance is given in figure 7



*Figure. 7:* Histogram of the distribution of the total scores on Cognitive Dissonance

Table 7

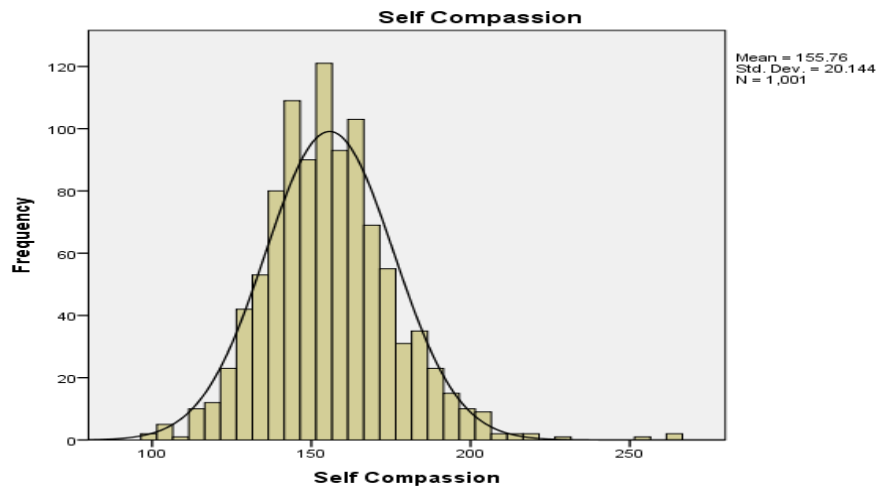
*Important statistical constants for the score distribution of Self Compassion for total sample and subsamples based on gender, locale , type of management and stream of study.*

Sample	N	Mean	Median	Mode	SD	Skewness	Kurtosis
Total	1001	155.76	155	165	20.14	.62	2.05
Male	446	158.29	157	149	20.74	.82	2.55
Female	555	153.72	154	155	19.43	.40	1.36
Govt	471	152.31	150	149	18.85	1.23	4.85
Aided	530	158.82	158	156	20.76	.17	.93
Rural	633	156.09	155	155	18.82	.88	4.02
Urban	368	155.18	153	145	22.25	.35	.05
HSE	700	156.32	155	156	21.66	.65	2.12
VHSE	301	154.97	155	145	16.93	.29	.14

From the table 7 Mean, Median and Mode of Self Compassion for total sample found to be 155.6, 155,165 respectively. Mean, median, are approximate equal. SD of the scores of Self Compassion for the total sample is 20.14. which means the scores are deviated from the mean scores. The value of skewness and kurtosis found to be 0.62 and 2.05. here the curve is positively skewed and it is platy kurtic. The statistical constants of Self Compassion based on gender, locale, type of management, stream of study can be interpreted similarly.

The extent of Self Compassion is established by using mean score. It is clear from the table that the mean score of Self Compassion for total sample is 155.6 which is greater than neutral value (141) which means that higher secondary school students have a high Self Compassion. The mean score obtained for Self Compassion based on gender, locale, type of management and stream of study are greater than the neutral value 141, which means the subsamples have high Self Compassion.

A histogram with normal curve representing the distribution of the total scores of Self Compassion is given in figure 8



*Figure. 8:* Histogram of the distribution of the total scores on Self Compassion

Table 8

*Important statistical constants of the score distribution of Self Kindness, Common Humanity and Mindfulness (Self Compassion component wise) for total sample.*

Self Compassion Components	Mean	Median	Mode	SD	Skewness	Kurtosis
Self Kindness	57.07	55	55	10.36	.92	1.01
Common Humanity	35.49	35	30	7.46	1.46	5.73
Mind Fullness	63.25	64	60	8.35	-.56	.14

From the table 8 Mean, Median and Mode of Self Kindness for total sample found to be 57.07, 55, 55 respectively. Mean, median,mode are approximate equal. SD of the scores of Self Kindness for the total sample is 10.36. which means the scores are deviated from the mean scores. The value of skewness and kurtosis found to be -0.92 and 1.01. Here the curve is positively skewed and it is platy kurtic. The extent of Self Kindness established by using means score. It is clear from the table that the mean score of self kindness for total sample is 57 which is equal to the

neutral value (57) which means that higher secondary school students have a moderate level of self kindness.

From the table 8 Mean, Median and Mode of Common Humanity for total sample found to be 35.49, 35, 30 respectively. Mean, median are approximate equal. SD of the scores of Common Humanity for the total sample is 7.46 which means that the scores are deviated from the mean scores. The value of skewness and kurtosis found to be 1.46 and 5.73. Here the curve is positively skewed and it is platy kurtic. The extent of Common Humanity established by using means score. It is clear from the table that the mean score of Common Humanity for total sample is 35.49 which is less than neutral value (42) which means that higher secondary school students have a low Common Humanity.

From the Table 8 Mean, Median and Mode of Mindfulness for total sample found to be 63.25, 64, 60 respectively. Mean, median, mode are approximate equal. SD of the scores of Mindfulness for the total sample is 8.35 which means the scores are deviated from the mean scores. The value of skewness and kurtosis found to be -0.56 and 0.14. Here the curve is negatively skewed and it is leptokurtic. The extent of mindfulness established by using means score. It is clear from the table that the mean score of mindfulness for total sample is 63.25 which is equal to the neutral value (63) which means that higher secondary school students have a moderate level of mindfulness.



Table 9

*Important statistical constants for the score distribution of Academic Procrastination for total sample and subsamples based on gender, locale , type of management and stream of study.*

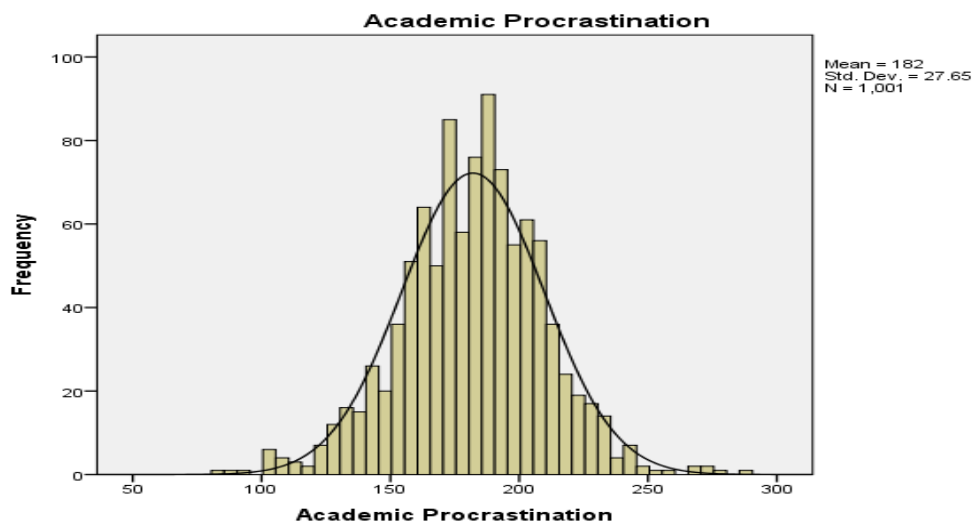
Sample	N	Mean	Median	Mode	SD	Skewness	Kurtosis
Total	1001	182	183	188	27.65	.11	.75
Male	446	181.40	183	188	28.40	-.18	.99
Female	555	182.49	184	192	27.04	-.04	.51
Govt.	471	184.88	187	188	26.19	-.00	.89
Aided	530	179.49	180	163	28.66	-.14	.62
Rural	633	182.17	183	175	25.01	.01	.41
Urban	368	181.71	185	170	31.70	-.20	.66
HSE	700	181.97	183	175	28.86	-.04	.82
VHSE	301	181.66	185	188	24.62	-.36	.12

From the table 9 Mean, Median and Mode of Academic Procrastination for total sample found to be 182,183, 188 respectively. Mean, median, are approximate equal. SD of the scores of Academic Procrastination for the total sample is 27.65. which means the scores are deviated from the mean scores. The value of skewness and kurtosis found to be -0.11 and 0.75. Here the curve is negatively skewed and it is platy kurtic. The statistical constants of Academic Procrastination based on gender, locale, type of management, stream of study can be interpreted similarly.

The extent of Academic Procrastination is established by using mean score. It is clear from the table that the mean score of Self Compassion for total sample is 182 which is greater than neutral value (165) which means that higher secondary school students have a high Academic Procrastination. The mean score obtained for

Academic Procrastination based on gender, locale, type of management and stream of study are greater than the neutral value 165, which means the subsamples have high Academic Procrastination.

A histogram with normal curve representing the distribution of the total scores of Academic Procrastination is given in figure 9



*Figure. 9:* Histogram of the distribution of the total scores on Academic Procrastination

This section of the analysis analyses the basic properties possessed by the score distribution of the independent variables and dependent variable for total sample and subsample based on gender, type of management, stream of study and locale of the school. From table 4,5 and 6 it can be seen that the statistical constants f independent and dependent variable are close approximations to values expected for normal distribution. The distribution were further examined for their shapes

graphically which revealed that all distribution approximated to normality and are not badly skewed.

On the it can be seen that the distribution of the independent and dependent variables do not depart markedly for the total sample and subsamples. For a large sample, slight non normality of the population doesn't seriously affect probabilities of acceptance or rejection of hypotheses. The sample selected for the present study can be regarded as fairly representative sample of the population.

The distribution of scores of the select independent variables and dependent variable were studied and are found to be near normal and is not badly skewed. The distribution were further examined using P-P plot (probability – probability plot) . This graph plots the cumulative probability of a variable against the cumulative probability of normal distribution. What this means is that the data are ranked and sorted. Then for each rank the corresponding z score is calculated. This is the expected value that the score should have in a normal distribution. Next the score itself is converted to a z score. The actual z score is plotted against the expected z score. The observed cumulative probability is represented in X-axis and expected cumulative probability is presented in the Y-axis. If the data are normally distributed then the actual z score will be the same as the expected z score and will get a straight diagonal line. If values fall on the diagonal of the plot then the variable is normally distributed, but deviations from the diagonal show deviations from normality. The P-P plot of Cognitive Dissonance , Self Compassion and Academic Procrastination for total sample is presented as figure 10, figure 11 and figure 12

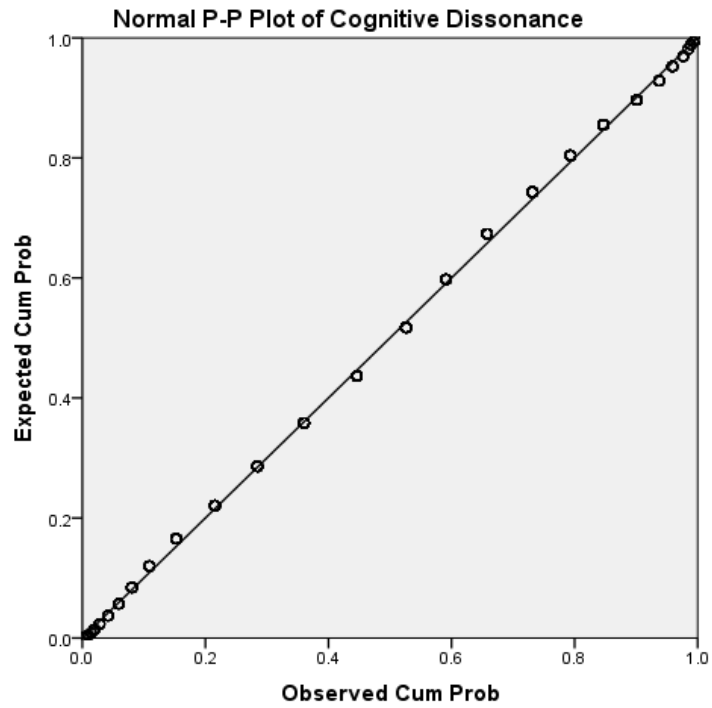


Figure 10: Normal p-p plot of Cognitive Dissonance

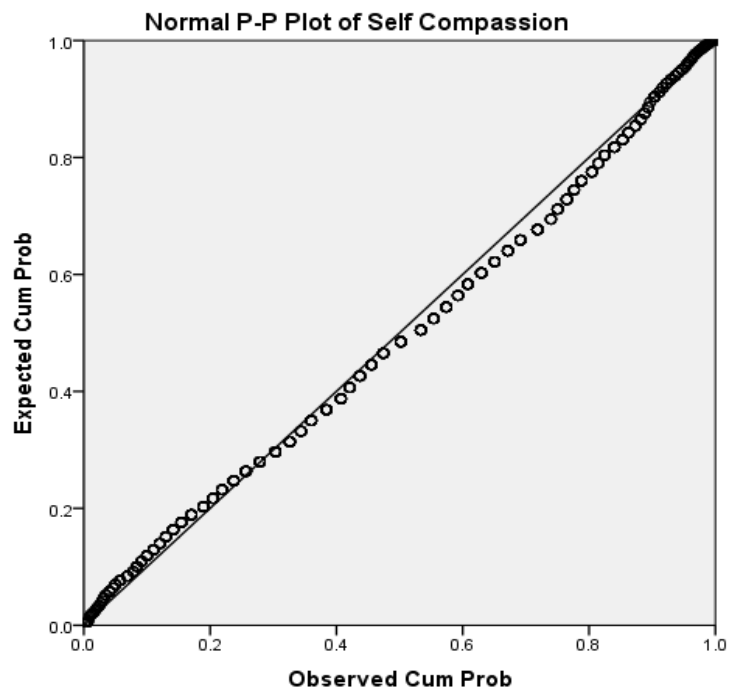
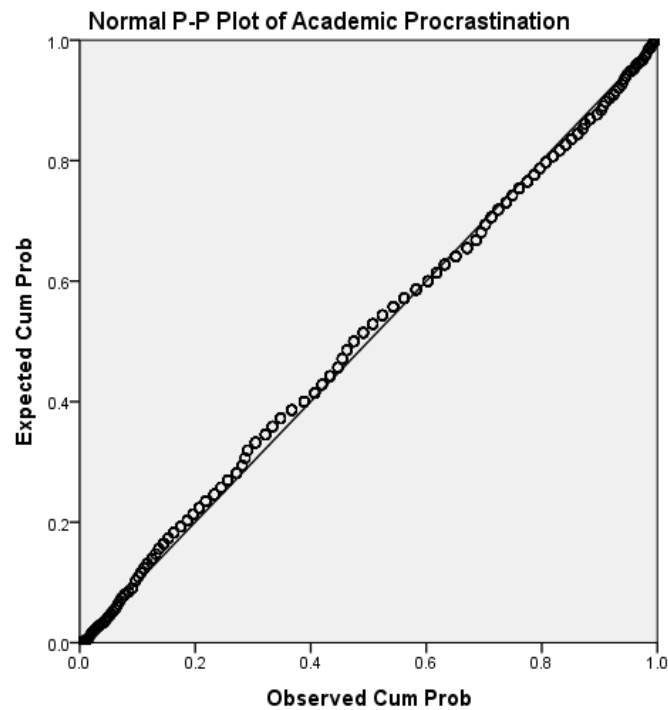


Figure 11: Normal p-p plot of Self Compassion



*Figure 12:* Normal p-p plot of Academic Procrastination

The normal P-P plots revealed that there are only slight deviations of observed cumulative probability from the diagonals. And Q-Q plots and normal curve approximate normal in nature. It revealed that all distributions approximated to normality.

### **Investigation of group Difference**

Comparison of mean scores was carried out to test whether significant difference exist between mean scores in Cognitive Dissonance , Self Compassion and Academic Procrastination for male and female, government and aided and rural and urban HSE and VHSE students.

For this, mean and SD of the distributions of independent variables and dependent variable were calculated for the subsamples male, female, government , aided, rural, urban, HSE and VHSE students.

Two tailed test of significance of difference between means was used for comparison. As all the sub samples are large samples, formula for large independent sample was used. Mean scores of the distribution of independent variables and dependent variables were calculated separately.

### **Investigation of gender difference**

It is obvious that most of the human variables are affected in one way or other by the gender of the individual. To take the preliminary analysis to a higher level, an attempt is made to investigate the gender difference in the independent and dependent variables.

For this purpose, the means and standard deviations of the variables obtained for boys and girls were subjected to two tailed test of significance of difference between means helped to identify whether the variables differ statistically according to gender.

To find out the gender differences for the select independent variables namely, Cognitive Dissonance, Self Compassion (total score and component wise) and dependent variable Academic Procrastination, the data were analyzed with the help of t test and the results are given in table 10

Table 10

*Data and results of the test of significance of difference between the mean scores in Cognitive Dissonance, Self Compassion (total score and component wise) and Academic Procrastination of male and female students in the total sample.*

Variables	Groups Compared	N	Mean	SD	t value	Level of significance
Cognitive Dissonance	Male	446	77.48	5.29	1.75	NS
	Female	555	78.03	4.59		
Self Compassion	Male	446	158.29	20.74	3.58	.01
	Female	555	153.72	19.43		
Self Kindness	Male	446	58.33	10.46	3.44	.01
	Female	555	56.07	10.17		
Common Humanity	Male	446	36.24	36.24	2.87	.01
	Female	555	34.88	34.88		
Mindfulness	Male	446	63.73	63.73	1.62	NS
	Female	555	62.86	62.86		
Academic Procrastination	Male	446	181.40	28.40	0.618	NS
	Female	555	182.49	27.04		

Table 10 shows that the t value obtained for male and female students in Cognitive Dissonance is 1.75 .which is not significant even at .05 level. Since the obtained t value is less than 1.96. It shows that the mean scores of Cognitive Dissonance between male and female student does not differ significantly. Therefore, the Cognitive Dissonance do not vary considerably according to the gender categories.

Meanwhile, the t value obtained for male and female students in Self Compassion is 3.58 .which is significant at .01 level. Since the obtained t value is

greater than 2.58. It shows that the mean scores of Self Compassion between male and female student differ significantly. The mean scores of Self Compassion of male sample is 158.29 which is significantly higher than that of female students whose mean score is 153.72. High mean scores associated with males suggest the superiority of males over females in high Self Compassion.

In the case of components of Self Compassion the t value obtained for male and female students in Self Kindness is 3.44 .which is significant at .01 level. Since the obtained t value is greater than 2.58. It shows that the mean scores of Self Kindness between male and female student differ significantly. The mean scores of Self Kindness of male sample is 58.33 which is significantly higher than that of female students whose mean score is 56.07. High mean scores associated with males suggest the superiority of males over females in high Self Kindness.

The t value obtained for male and female students in Common Humanity is 2.87 .which is significant at .01 level. Since the obtained t value is greater than 2.58. It shows that the mean scores of Common Humanity between male and female students differ significantly. The mean scores of Common Humanity of male sample is 36.24 which is significantly higher than that of female students whose mean score is 34.88. High mean scores associated with males suggest the superiority of males over females in high Common Humanity.

On the contrary, component of Self Compassion i.e, mindfulness does not show gender difference. The t value obtained for male and female students in mindfulness is 1.62 .which is not significant even at .05 level of significance. Since the obtained t value is less than 1.96. It shows that the mean scores of mindfulness



between male and female student does not differ significantly. That means mindfulness is approximate same as male and female students.

The t value obtained for male and female students in Academic Procrastination is 0.618 .which is not significant even at 0.51 level of significance. Since the obtained t value is less than 1.96. It shows that the mean scores of Academic Procrastination between male and female student does not differ significantly. That means Academic Procrastination is approximate same as male and female students.

### **Investigation of locale difference**

To find out the locale differences for the select independent variables namely, Cognitive Dissonance, Self Compassion (total score and component wise) and dependent variable Academic Procrastination, the data were analyzed with the help of t test and the results are given in table 11

Table 11

*Data and results of the test of significance of difference between the mean scores in Cognitive Dissonance, Self Compassion (total score and component wise) and Academic Procrastination of rural and urban students in the total sample.*

Variables	Groups Compared	N	Mean	SD	t value	Level of significance
Cognitive Dissonance	Rural	633	77.78	4.59	0.08	NS
	Urban	368	77.80	5.44		
Self Compassion	Rural	633	156.09	18.82	0.687	NS
	Urban	368	155.18	22.25		
Self Kindness	Rural	633	56.99	9.95	0.34	NS
	Urban	368	57.23	11.04		
Common Humanity	Rural	633	35.64	7.05	0.81	NS
	Urban	368	35.22	8.12		
Mindfulness	Rural	633	63.47	8.01	1.10	NS
	Urban	368	62.85	8.91		
Academic Procrastination	Rural	633	182.17	25.01	0.255	NS
	Urban	368	181.71	31.70		

The data displayed in Table 11 shows that the t value obtained for rural and urban students in Cognitive Dissonance is 0.08 .which is not significant. Since the obtained t value is less than 1.96. It shows that the mean scores of Cognitive Dissonance between rural and urban student does not differ significantly.

The t value obtained for rural and urban students in Self Compassion is 0.687. Which is not significant even at .05 level. Since the obtained t value is less than 1.96. It shows that the mean scores of Self Compassion between rural and urban students does not differ significantly.

In the case of components of Self Compassion the t value obtained for rural and urban students in Self Kindness is 0.34. Which is not significant even at .05 level. Since the obtained t value is less than 1.96. It shows that the mean scores of Self kindness between rural and urban students does not differ significantly.

The t value obtained for rural and urban students in Common Humanity is 0.81. Which is not significant even at .05 level. Since the obtained t value is less than 1.96. It shows that the mean scores of Common Humanity between rural and urban students does not differ significantly.

The t value obtained for rural and urban students in mindfulness is 1.10. Which is not significant even at .05 level. Since the obtained t value is less than 1.96. It shows that the mean scores of mindfulness between rural and urban students does not differ significantly.

The t value obtained for rural and urban students in Academic Procrastination is 0.255. Which is not significant even at .05 level of significance. Since the obtained t value is less than 1.96. It shows that the mean scores of Academic Procrastination between rural and urban student does not differ significantly. That means Academic Procrastination is approximate same as rural and urban students.

In all the variables there is no significant difference between rural and urban samples.

**Investigation of mean difference based on type of management**

To find out the mean differences based on type of management for the select independent variables namely, Cognitive Dissonance, Self Compassion (total score and component wise) and dependent variable Academic Procrastination the data were analyzed with the help of t test and the results are given in table 12

Table 12

*Data and results of the test of significance of difference between the mean scores in Cognitive Dissonance, Self Compassion (total score and component wise) and Academic Procrastination of govt. and aided students in the total sample.*

Variables	Groups Compared	N	Mean	SD	t value	Level of significance
Cognitive Dissonance	Govt.	471	78.58	4.79	4.86	.01
	Aided	530	77.08	4.93		
Self Compassion	Govt.	471	152.31	18.85	5.19	.01
	Aided	530	158.82	20.76		
Self Kindness	Govt.	471	55.99	10.06	3.15	.01
	Aided	530	58.04	10.54		
Common Humanity	Govt.	471	34.31	6.63	4.78	.01
	Aided	530	36.53	7.98		
Mindfulness	Govt.	471	62.12	8.12	4.06	.01
	Aided	530	64.25	8.44		
Academic Procrastination	Govt.	471	184.88	26.19	3.13	.01
	Aided	530	179.44	28.66		

Table 12 shows that the t value obtained for Govt. and Aided students in Cognitive Dissonance is 4.86. This is significant at .01 level of significance. Since

the obtained t value is greater than 2.58. It shows that the mean scores of Cognitive Dissonance Govt. and Aided student differ significantly. The mean scores of Cognitive Dissonance of Govt. sample is 78.58. Which is significantly higher than that of Aided students whose mean score is 77.08. High mean scores associated with Govt. sample suggest the superiority of Govt. students over Aided students in Cognitive Dissonance.

The t value obtained for Govt. and Aided students in Self Compassion is 5.19 .which is significant at .01 level of significance. Since the obtained t value is greater than 2.58. It shows that the mean scores of Self Compassion between Govt. and Aided students differ significantly. The mean scores of Self Compassion of Aided sample is 158.82 which is significantly higher than that of govt. students whose mean score is 152.31. High mean scores associated with Aided students suggest the superiority of Aided over Govt students in high Self Compassion.

The t value obtained for Govt. and Aided students in Self Kindness is 3.15 .which is significant at .01 level of significance. Since the obtained t value is greater than 2.58. It shows that the mean scores of Self Kindness between Govt. and Aided students differ significantly. The mean scores of Self Kindness of Aided sample is 58.04 which is significantly higher than that of govt. students whose mean score is 55.99. High mean scores associated with Aided students suggest the superiority of Aided over Govt. students in high Self Kindness.

The t value obtained for Govt. and Aided students in Common Humanity is 4.78 .which is significant at .01 level of significance. Since the obtained t value is greater than 2.58. It shows that the mean scores of Common Humanity between

Govt. and Aided students differ significantly. The mean scores of Common Humanity of Aided sample is 36.53 which is significantly higher than that of govt. students whose mean score is 34.31. High mean scores associated with Aided students suggest the superiority of Aided over Govt. students in high Common Humanity.

The t value obtained for Govt. and Aided students in Mindfulness is 4.06 which is significant at .01 level of significance. Since the obtained t value is greater than 2.58. It shows that the mean scores of Mindfulness between Govt. and Aided students differ significantly. The mean scores of Mindfulness of Aided sample is 64.25 which is significantly higher than that of govt. students whose mean score is 62.12. High mean scores associated with Aided students suggest the superiority of Aided over Govt. students in high Mindfulness.

The t value obtained for Govt. and Aided students in Academic Procrastination is 3.13 .which is significant at .01 level of significance. Since the obtained t value is greater than 2.58. It shows that the mean scores of Academic Procrastination between Govt. and Aided student differ significantly. The mean scores of Academic Procrastination of Govt. sample is 184.85 which is significantly higher than that of aided students whose mean score is 179.44. High mean scores associated with Govt. students suggest the superiority of Govt. students over Aided students in high Academic Procrastination.

**Investigation of mean difference based on Stream of study.**

To find out the mean differences based on course of study for the select independent variables namely, Cognitive Dissonance, Self Compassion (total score and component wise) and dependent variable Academic Procrastination, the data were analyzed with the help of t test .

Table 13

*Data and results of the test of significance of difference between the mean scores in Cognitive Dissonance, Self Compassion (total score and component wise) and Academic Procrastination of HSE and VHSE students in the total sample.*

Variables	Groups Compared	N	Mean	SD	t value	Level of significance
Cognitive Dissonance	HSE	700	77.33	4.92	4.55	.01
	VHSE	301	78.84	4.75		
Self Compassion	HSE	700	156.32	21.36	1.46	NS
	VHSE	301	154.46	16.93		
Self Kindness	HSE	700	57.22	10.72	0.68	NS
	VHSE	301	56.75	9.48		
Common Humanity	HSE	700	35.79	8.06	2.22	.05
	VHSE	301	34.78	5.75		
Mindfulness	HSE	700	63.33	8.65	0.52	NS
	VHSE	301	63.04	7.62		
Academic Procrastination	HSE	700	181.97	28.86	.05	NS
	VHSE	301	182.07	24.62		

Table 13 shows that the t value obtained for HSE and VHSE students in Cognitive Dissonance is 4.55. This is significant at .01 level of significance. Since

the obtained t value is greater than 2.58. It shows that the mean scores of Cognitive Dissonance between HSE and VHSE students differ significantly. The mean scores of Cognitive Dissonance of VHSE students is 78.84. This is significantly higher than that of HSE students whose mean score is 77.33. High mean scores associated with HSE students suggest the superiority of HSE students over VHSE students in Cognitive Dissonance.

The t value obtained for HSE and VHSE students in Self Compassion is 1.46 .which is not significant even at .05 level of significance. Since the obtained t value is less than 1.96. It shows that the mean scores of Self Compassion between HSE and VHSE students does not differ significantly.

The t value obtained for HSE and VHSE students in Self Kindness is 0.68 .which is not significant even at .05 level of significance. Since the obtained t value is less than 1.96. It shows that the mean scores of Self Kindness between HSE and VHSE students does not differ significantly.

The t value obtained for HSE and VHSE students in Common Humanity is 2.22. This is significant at .05 level of significance. Since the obtained t value is greater than 1.96. It shows that the mean scores of Common Humanity between HSE and VHSE students differ significantly. The mean scores of Common Humanity of HSE students is 35.79. This is significantly higher than that of VHSE students whose mean score is 34.78. High mean scores associated with HSE students suggest the superiority of HSE students over VHSE students in Mindfulness.



The t value obtained for HSE and VHSE students in Academic Procrastination is .05, which is not significant even at .05 level of significance. Since the obtained t value is less than 1.96. It shows that the mean scores of Academic Procrastination between HSE and VHSE student does not differ significantly.

### **Analysis of Variance**

The main purpose of present study is to find out the influence of each of the independent variable on the dependent variable and the influence of interaction of these independent variables on dependent variable. All the two independent variable were categorized into three levels. Cognitive Dissonance classified into High, Average and low Cognitive Dissonance. Self Compassion classified into High, Average and low Self Compassion. For calculating the influence of Cognitive Dissonance and Self Compassion and their interaction on Academic Procrastination of higher secondary school students 3x3 factorial ANOVA was done.

### **Influence of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students for total sample and relevant subsamples.**

The fourth objective was to study the main effects of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students for the total sample and relevant subsamples based on gender, locality, type of management and course of study. The influence of independent variables on dependent variable for total sample was calculated first and their interaction effect of

Cognitive Dissonance and Self Compassion was also found out. The data were analysed with the help of 3X3 Factorial ANOVA and results are presented in table 14

Table 14

*Summary of 3X3 factorial ANOVA of influence of Cognitive Dissonance and Self Compassion on Academic Procrastination.*

Source of variance	df	SS	MSS	F value	Sig. Value	Level of significance
Cognitive Dissonance	2	20921.48	10460.74	16.08	.00	.01
Self Compassion	2	30086.29	15043.14	23.12	.00	.01
Cognitive Dissonance X Self Compassion	4	6169.26	1542.31	2.37	.05	NS
Error	992	645346.71	650.55			

**Main Effects**

**Influence of Cognitive Dissonance on Academic Procrastination for total sample**

From table 14 it is revealed that F value for Cognitive Dissonance is 16.08 which is significant at .01 level with df= 2/992. It means that mean scores of Academic Procrastination of students belonging to high, average, low Cognitive Dissonance group differ significantly. So, there is significant influence of Cognitive Dissonance on Academic Procrastination for total sample. In order to know which groups mean score of Academic Procrastination is significantly higher, the data were further analysed with the help of Scheffe's test of post hoc comparison and the result are given in Table 15.

Table 15

*Summary of Scheffe's Post hoc comparison with matrix of ordered means of Cognitive Dissonance on Academic Procrastination for total sample*

Sl No.	Groups Compared	Mean	Mean difference	SE	F	Sig. value	Level of significance
1.	High CD	194.55					
	Average CD	181.52	13.03	2.44	28.51	.00	.01
2.	High CD	194.55					
	Low CD	169.04	25.50	3.48	53.58	.00	.01
3.	Average CD	181.52					
	Low CD	169.04	12.48	2.79	19.98	.00	.01

From the table 15 shows that absolute difference between the mean scores of high Cognitive Dissonance group and average Cognitive Dissonance group is 13.03, which is significant at .01 level of significance. Since the F value (28.51) is greater than the table value  $F^I = 9.2$  with df (2/992) at .01 level of significance. This shows that there is significant difference in the Academic Procrastination level of students with high and average level of Cognitive Dissonance.

The difference between high Cognitive Dissonance group and low Cognitive Dissonance group is 25.50, which is significant at .01 level of significance. Since the F value (53.58) is greater than the table value  $F^I = 9.2$  with df (2/992) at .01 level of significance. This shows that there is significant difference in the Academic Procrastination level of students with high and low level of Cognitive Dissonance.

The difference between mean scores of average Cognitive Dissonance group and low Cognitive Dissonance group is 12.48 , which is significant at .01 level of significance. Since the calculated F value (19.98) is greater than the table value  $F^1 = 9.2$  with df (2/992) at .01 level of significance. This shows that there is significant difference in the Academic Procrastination level of students with average and low level of Cognitive Dissonance.

It can be interpreted that high mean score of Academic Procrastination (194.55) indicated higher level of Cognitive Dissonance. It may therefore, be concluded that students of high Cognitive Dissonance group are found to have significantly higher Academic Procrastination than those of average and low Cognitive Dissonance group. Average Cognitive Dissonance group is significantly higher in Academic Procrastination than those of low Cognitive Dissonance group.

### **Influence of Self Compassion on Academic Procrastination for total sample**

From table 14 it is revealed that F value for Self Compassion is 23.12 which is significant at .01 level with df= 2/992. It means that mean scores of Academic Procrastination of students belonging to high, average, low Self Compassion group differ significantly. So, there is significant influence of Self Compassion on Academic Procrastination for total sample. In order to know which groups mean score of Academic Procrastination is significantly higher, the data were further analysed with the help of Scheffe's test of post hoc comparison and the result are given in Table 16.

Table 16

*Summary of Scheffe's Post hoc comparison with matrix of ordered means of Self Compassion on Academic Procrastination for total sample*

Sl No.	Groups Compared	Mean	Mean difference	SE	F	Sig. value	Level of significance
1.	High SC	162.27	20.83	2.33	79.74	.00	.01
	Average SC	183.11					
2.	High SC	162.27	35.65	3.12	130.4	.00	.01
	Low SC	197.93					
3.	Average SC	183.11	14.82	2.46	36.24	.00	.01
	Low SC	197.93					

From the table 16 shows that absolute difference between the mean scores of high Self Compassion group and average Self Compassion group is 20.83, which is significant at .01 level of significance. Since the F value (79.74) is greater than the table value  $F^I = 9.2$  with df (2/992) at .01 level of significance. This shows that there is significant difference in the Academic Procrastination level of students with high and average level of Self Compassion.

The difference between high Self Compassion group and low Self Compassion group is 35.65 which is significant at .01 level of significance. Since the F value (130.4) is greater than the table value  $F^I = 9.2$  with df (2/992) at .01 level of significance. This shows that there is significant difference in the Academic Procrastination level of students with high and low level of Self Compassion.

The difference between mean scores of average Self Compassion group and low Self Compassion group is 14.82, which is significant at .01 level of significance.

Since the calculated F value (36.24) is greater than the table value  $F^I = 9.2$  with df (2/992) at .01 level of significance. This shows that there is significant difference in the Academic Procrastination level of students with average and low level of Self Compassion.

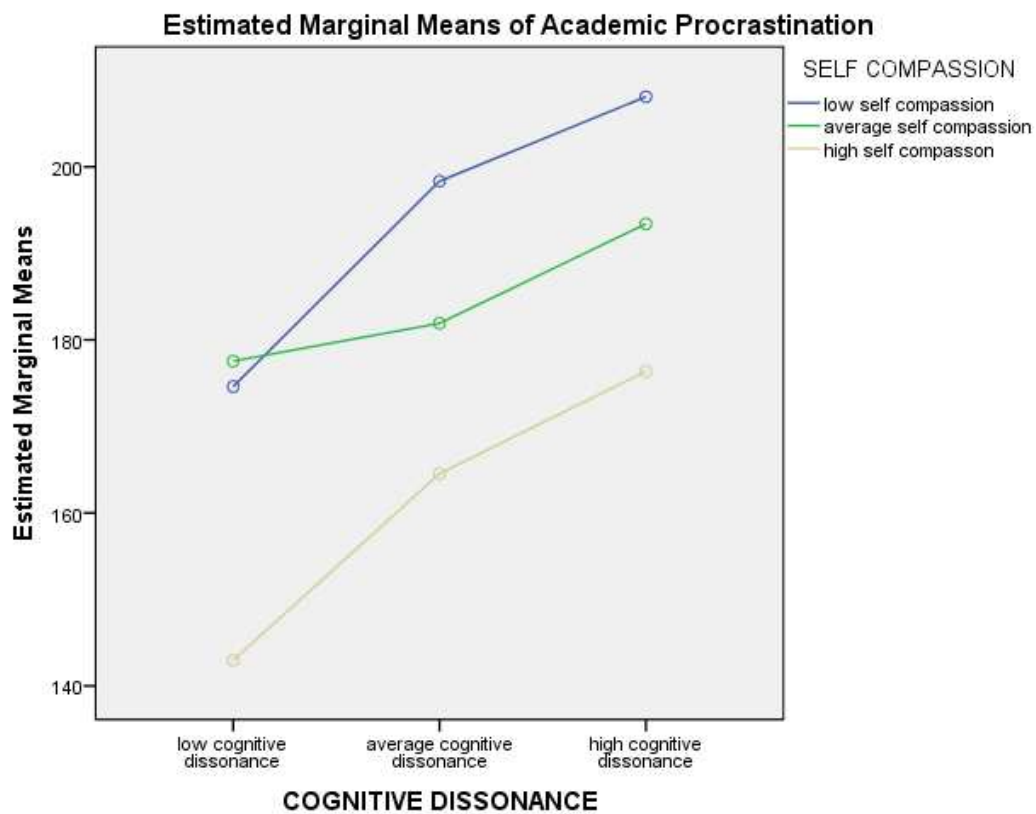
It can be interpreted that high mean score of Academic Procrastination (197.93) indicated low level of Self Compassion and low mean score of Academic Procrastination (162.27) indicated high level of Self Compassion. It may therefore, be concluded that students of low Self Compassion group are found to have significantly higher Academic Procrastination than those of average and high Self Compassion group. Average Self Compassion group is significantly higher in Academic Procrastination than those of high Self Compassion group.

### **First order Interaction Effects**

#### **Influence of interaction between Cognitive Dissonance and Self Compassion on Academic Procrastination for total sample.**

The F value for interaction between Cognitive Dissonance and Self Compassion is 2.37 which is not significant even at .05 level of significance. Since the calculated F value is less than the table value 2.37 with df (4/992). It shows that the mean scores of Academic Procrastination of high, average, low Self Compassion belonging to high, average and low Self Compassion groups does not differ significantly. So there is no significant influence of the interaction between Cognitive Dissonance and Self Compassion on Academic Procrastination for total sample. It may therefore be concluded that Academic Procrastination is does not

influenced by the interaction between Cognitive Dissonance and Self Compassion. In order to know the trend of influence of interaction between Cognitive Dissonance and Self Compassion Figure 13 has been plotted.



*Figure 13:* Profile plot of Interaction between Cognitive Dissonance and Self Compassion on Academic Procrastination for total sample .

Figure 13 shows that the mean scores of high Cognitive Dissonance belonging to low Self Compassion category is higher than average and high Self Compassion groups. In the case of average Cognitive Dissonance, the mean score of low Self Compassion is higher than average and high Self Compassion category. The mean scores of low Cognitive Dissonance category belonging to average Self Compassion is higher than low and high Self Compassion groups. This is a clear

evidence of the dependency of Academic Procrastination on the interaction between Cognitive Dissonance and Self Compassion for total sample.

**Influence of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students for sub sample male.**

The main effects of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students for the sub sample male. The data were analysed with the help of 3X3 factorial ANOVA. And the results are presented in table17. The influence of independent variables on dependent variable for sub sample male was calculated first and their interaction effect of Cognitive Dissonance And Self Compassion was also found out. The data were analysed with the help of 3X3 Factorial ANOVA and results are presented in table 17

Table17

*Summary of 3X3 factorial ANOVA of influence of Cognitive Dissonance and Self Compassion on Academic Procrastination for sub sample male*

Source of variance	df	SS	MSS	F value	Sig.Value	Level of significance
Cognitive Dissonance	2	17581.13	8790.56	12.52	.00	.01
Self Compassion	2	12906.11	6453.05	9.19	.00	.01
Cognitive Dissonance X Self Compassion	4	10331.96	2582.99	3.67	.00	.01
Error	437	306820.96	702.11			



**Main Effects**

**Influence of Cognitive Dissonance on Academic Procrastination for sub sample male.**

From table 17 it is revealed that F value for Cognitive Dissonance is 12.52 which is significant at .01 level. Since the F value is greater than the table value 4.60 with  $df= 2/437$ . It means that mean scores of Academic Procrastination of students belonging to high, average, low Cognitive Dissonance group differ significantly. So, there is significant influence of Cognitive Dissonance on Academic Procrastination for sub sample male. In order to know which groups mean score of Academic Procrastination is significantly higher, the data were further analysed with the help of Scheffe's test of post hoc comparison and the result are given in Table 18

Table 18

*Summary of Scheffe's test of Post hoc comparison between means of Cognitive Dissonance on Academic Procrastination for sub sample male*

Sl No.	Groups Compared	Mean	Mean difference	SE	F	Sig. value	Level of significance
1.	High CD	193.06					
	Average CD	181.39	11.66	3.88	9.03	.01	.05
2.	High CD	193.06					
	Low CD	17.00	23.06	5.07	20.61	.00	.01
3.	Average CD	181.39					
	Low CD	17.00	11.39	3.85	8.70	.01	.05

From the table 18 shows that absolute difference between the mean scores of high Cognitive Dissonance group and average Cognitive Dissonance group for male sample is 11.66, which is significant at .05 level of significance. Since the F value (9.03) is greater than  $F^I = 5.98$  with df (2/437) at .05 level of significance. This shows that there is significant difference in the Academic Procrastination level of male students with high and average level of Cognitive Dissonance.

The difference between high Cognitive Dissonance group and low Cognitive Dissonance group for male sample is 23.06, which is significant at .01 level of significance. Since the F value (20.61) is greater than  $F^I = 9.2$  with df (2/437) at .01 level of significance. This shows that there is significant difference in the Academic Procrastination level of male students with high and low level of Cognitive Dissonance.

The difference between mean scores of average Cognitive Dissonance group and low Cognitive Dissonance group for male sample is 11.39 , which is significant at .05 level of significance. Since the calculated F value (8.70) is greater than  $F^I = 5.98$  with df (2/437) at .05 level of significance. This shows that there is significant difference in the Academic Procrastination level of male students with average and low level of Cognitive Dissonance.

It can be interpreted that high mean score of Academic Procrastination (193.06) indicated higher level of Cognitive Dissonance. It may therefore, be concluded that students of high Cognitive Dissonance group are found to have significantly higher Academic Procrastination than those of average and low

Cognitive Dissonance group. Average Cognitive Dissonance group is significantly higher in Academic Procrastination than those of low Cognitive Dissonance group.

**Influence of Self Compassion on Academic Procrastination for subsample male**

From table 17 it is revealed that F value for Self Compassion for male sample is 9.19 which is significant at .01 level. Since the calculated F value is greater than the table value 4.60 with  $df= 2/437$ . It means that mean scores of Academic Procrastination of students belonging to high, average, low Self Compassion group differ significantly. So, there is significant influence of Self Compassion on Academic Procrastination for total sample. In order to know which groups mean score of Academic Procrastination is significantly higher, the data were further analysed with the help of Scheffe's test of post hoc comparison and the result are given in Table 19

Table 19

*Summary of Scheffe's Post hoc comparison between means of Self Compassion on Academic Procrastination for male sample*

Sl No.	Groups Compared	Mean	Mean difference	SE	F	Sig. value	Level of significance
1.	High SC	164.66					
	Average SC	183.52	18.86	3.37	31.24	.00	.01
2.	High SC	164.66					
	Low SC	193.69	29.03	4.88	35.28	.00	.01
3.	Average SC	183.52					
	Low SC	193.69	10.17	4.10	6.15	0.04	.05

From the table 19 shows that absolute difference between the mean scores of high Self Compassion group and average Self Compassion group for male sample is 18.86, which is significant at .01 level of significance. Since the F value (31.24) is greater than the table value  $F^I = 9.2$  with df (2/437) at .01 level of significance. This shows that there is significant difference in the Academic Procrastination level of male students with high and average level of Self Compassion.

The difference between high Self Compassion group and low Self Compassion group for male sample is 29.03 which is significant at .01 level of significance. Since the F value (35.28) is greater than  $F^I = 9.2$  with df (2/437) at .01 level of significance. This shows that there is significant difference in the Academic Procrastination level of male students with high and low level of Self Compassion.

The difference between mean scores of average Self Compassion group and low Self Compassion group for male sample is 10.17, which is significant at .05 level of significance. Since the calculated F value (6.15) is greater than  $F^I = 4.6$  with df (2/437) at .05 level of significance. This shows that there is significant difference in the Academic Procrastination level of male students with average and low level of Self Compassion.

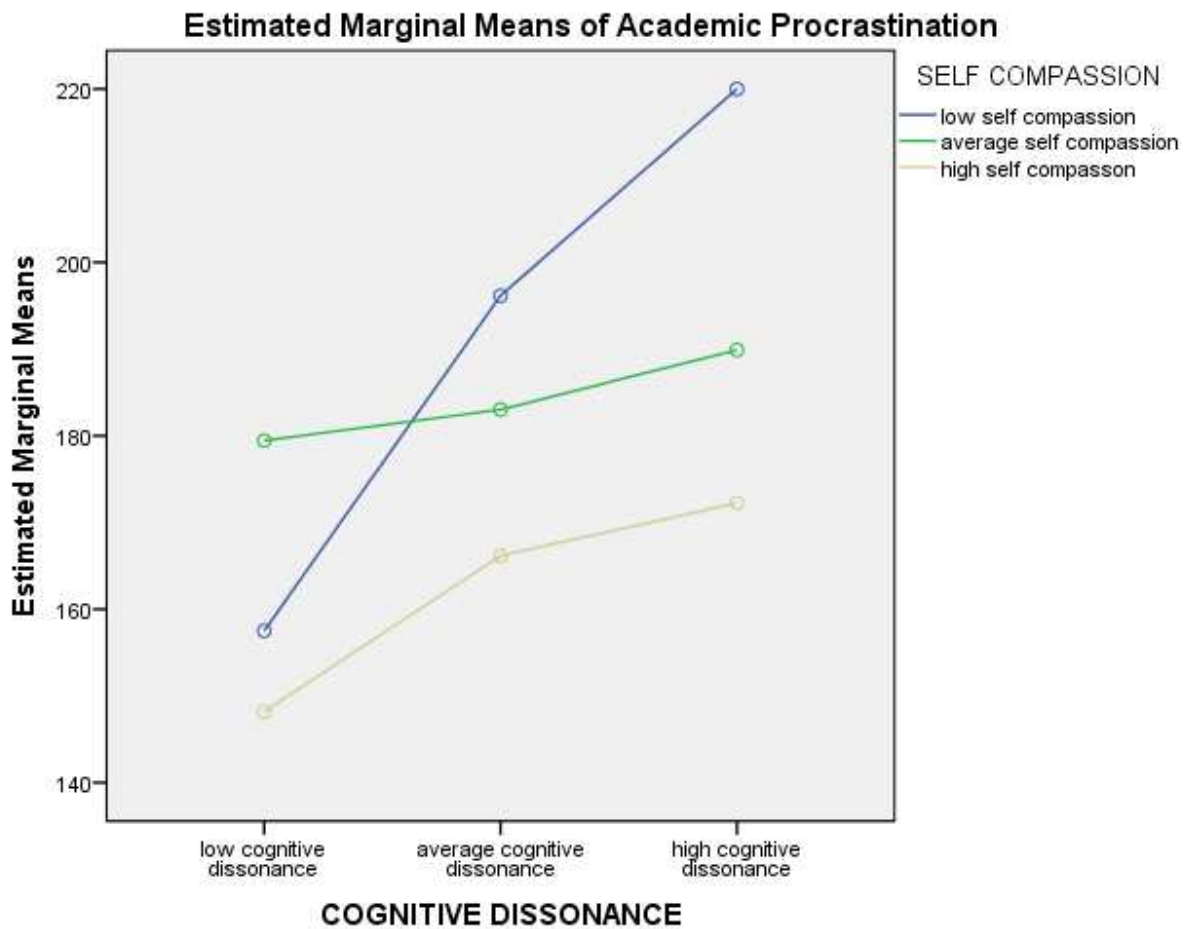
It can be interpreted that in the case of male sample, high mean score of Academic Procrastination (193.69) indicated low level of Self Compassion and low mean score of Academic Procrastination (164.66) indicated high level of Self Compassion. It may therefore, be concluded that students of low Self Compassion group are found to have significantly higher Academic Procrastination than those of average and high Self Compassion group. Average Self Compassion group is

significantly higher in Academic Procrastination than those of high Self Compassion group.

### **First order Interaction Effects**

#### **Influence of interaction between Cognitive Dissonance and Self Compassion on Academic Procrastination for sub sample male.**

The F value for interaction between Cognitive Dissonance and Self Compassion is 3.67 which is significant at .05 level of significance. Since the calculated F value is greater than the table value 3.67 with df (4/437). It shows that the mean scores of Academic Procrastination of high, average, low Self Compassion belonging to high, average and low Self Compassion groups differ significantly. So there is significant influence of the interaction between Cognitive Dissonance and Self Compassion on Academic Procrastination. It may therefore be concluded that Academic Procrastination is influenced by the interaction between Cognitive Dissonance and Self Compassion. In order to know the trend of influence of interaction between Cognitive Dissonance and Self Compassion Figure 14 has been plotted.



*Figure 14:* Profile plot of Interaction between Cognitive Dissonance and Self Compassion on Academic Procrastination for sub sample male.

Figure 14 shows that in the case of male sample, the mean scores of high Cognitive Dissonance belonging to low Self Compassion category is higher than average and high Self Compassion groups. In the case of average Cognitive Dissonance, the mean score of low Self Compassion is higher than average and high Self Compassion category. The mean scores of low Cognitive Dissonance category belonging to average Self Compassion is higher than low and high Self Compassion groups. This is a clear evidence of the dependency of Academic Procrastination on the interaction between Cognitive Dissonance and Self Compassion for male

sample. More over the combination of high self compassion compled with low cognitive dissonance yield low Academic Procrastination.

**Influence of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students for sub sample female.**

The main effects of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students for the sub sample female. The data were analysed with the help of 3X3 factorial ANOVA. And the results are presented in table20. The influence of independent variables on dependent variable for sub sample female was calculated first and their interaction effect of Cognitive Dissonance and Self Compassion was also found out. The data were analysed with the help of 3X3 Factorial ANOVA and results are presented in table 20

Table 20

*Summary of 3X3 factorial ANOVA of influence of Cognitive Dissonance and Self Compassion on Academic Procrastination for sub sample female.*

Source of variance	df	SS	MSS	F value	Sig.Value	Level of significance
Cognitive Dissonance	2	2843.63	1421.81	2.41	0.09	NS
Self Compassion	2	27254.88	13627.44	23.13	.00	.01
Cognitive Dissonance X Self Compassion	4	10158.92	2539.73	4.31	.00	.01
Error	546	321603.30	589.01			

**Main Effects****Influence of Cognitive Dissonance on Academic Procrastination for sub sample female.**

From table 20 it is revealed that F value for Cognitive Dissonance is 2.41 which is not significant even at .05 level of significance. Since the F value is less than the table value 4.60 with  $df= 2/546$ . It means that mean scores of Academic Procrastination of female students belonging to high, average, low Cognitive Dissonance group does not differ significantly. So, there is no significant influence of Cognitive Dissonance on Academic Procrastination for sub sample female.

**Influence of Self Compassion on Academic Procrastination for subsample female**

From table 20 it is revealed that F value for Self Compassion for female sample is 23.13 which is significant at .01 level. Since the calculated F value is greater than the table value 4.60 with  $df= 2/546$ . It means that mean scores of Academic Procrastination of female students belonging to high, average, low Self Compassion group differ significantly. So, there is significant influence of Self Compassion on Academic Procrastination for subsample female. In order to know which groups mean score of Academic Procrastination is significantly higher, the data were further analysed with the help of Scheffe's test of post hoc comparison and the result are given in Table 21.



Table 21

*Summary of Scheffe's Post hoc comparison between means of Self Compassion on Academic Procrastination for female sample*

Sl No.	Groups Compared	Mean	Mean difference	SE	F	Sig. value	Level of significance
1.	High SC	159.53					
	Average SC	182.78	23.25	3.21	52.41	.00	.01
2.	High SC	159.53					
	Low SC	200.57	41.04	4.07	101.60	.00	.01
3.	Average SC	182.78					
	Low SC	200.57	17.79	3.01	34.92	.00	.01

From the table 21 shows that absolute difference between the mean scores of high Self Compassion group and average Self Compassion group for female sample is 23.25, which is significant at .01 level of significance. Since the F value (52.41) is greater than the table value  $F^I = 9.2$  with df (2/546) at .01 level of significance. This shows that there is significant difference in the Academic Procrastination level of female students with high and average level of Self Compassion.

The difference between high Self Compassion group and low Self Compassion group for female sample is 41.04 which is significant at .01 level of significance. Since the F value (101.60) is greater than  $F^I = 9.2$  with df (2/546) at .01 level of significance. This shows that there is significant difference in the Academic Procrastination level of female students with high and low level of Self Compassion.

The difference between mean scores of average Self Compassion group and low Self Compassion group for female sample is 17.79, which is significant at .01 level of significance. Since the calculated F value (34.92) is greater than  $F^1 = 4.6$  with df (2/546) at .01 level of significance. This shows that there is significant difference in the Academic Procrastination level of female students with average and low level of Self Compassion.

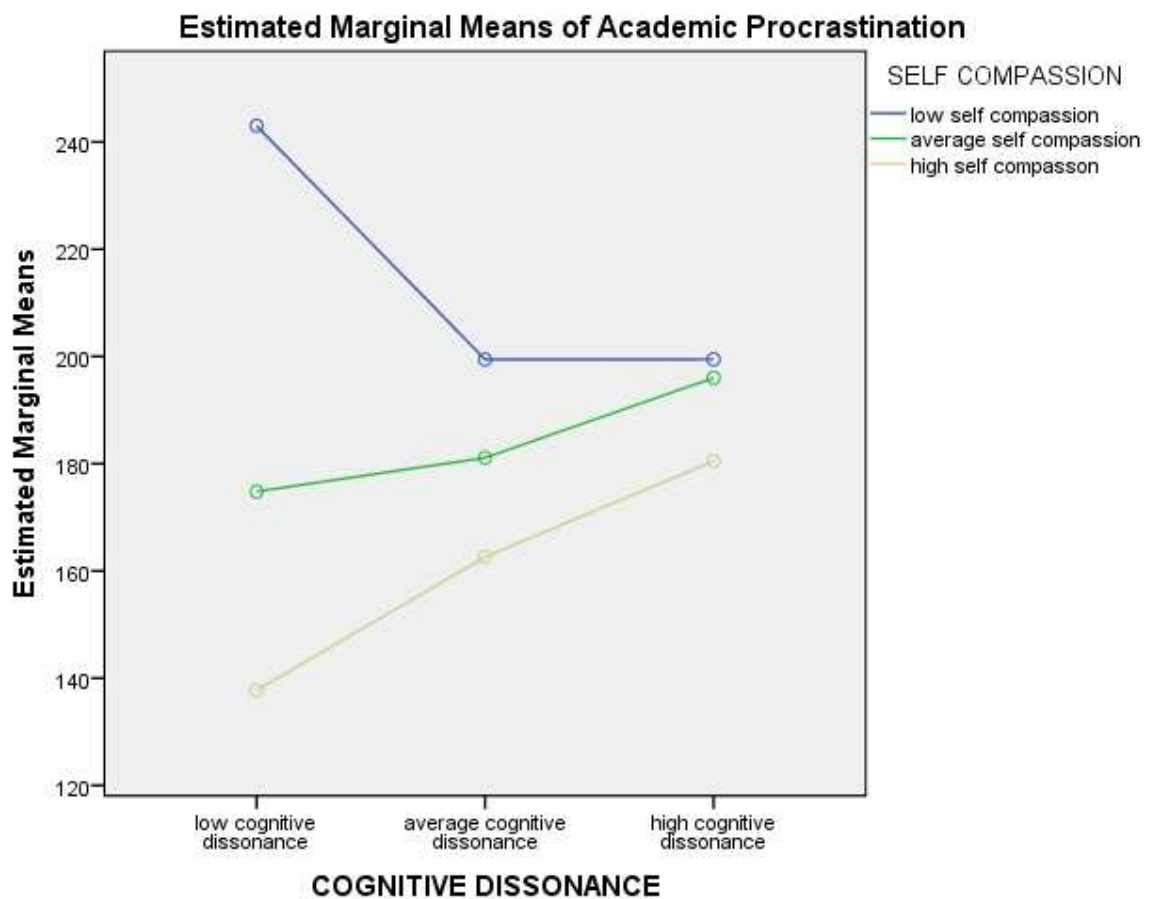
It can be interpreted that in the case of female sample, high mean score of Academic Procrastination (200.57) indicated low level of Self Compassion and low mean score of Academic Procrastination (159.53) indicated high level of Self Compassion. It may therefore, be concluded that female students of low Self Compassion group are found to have significantly higher Academic Procrastination than those of average and high Self Compassion group. Average Self Compassion group is significantly higher in Academic Procrastination than those of high Self Compassion group.

### **First order Interaction Effects**

#### **Influence of interaction between Cognitive Dissonance and Self Compassion on Academic Procrastination for sub sample female.**

The F value for interaction between Cognitive Dissonance and Self Compassion is 4.31 which is significant at .01 level of significance. Since the calculated F value is greater than the table value 3.32 with df (4/546). It shows that the mean scores of Academic Procrastination of high, average, low Cognitive Dissonance belonging to high, average and low Self Compassion groups differ

significantly. So there is significant influence of the interaction between Cognitive Dissonance and Self Compassion on Academic Procrastination. It may therefore be concluded that Academic Procrastination is influenced by the interaction between Cognitive Dissonance and Self Compassion. In order to know the trend of influence of interaction between Cognitive Dissonance and Self Compassion Figure 15 has been plotted.



*Figure 15:* Profile plot of Interaction between Cognitive Dissonance and Self Compassion on Academic Procrastination for sub sample female.

Figure 15 shows that in the case of female sample, the mean scores of high Self Compassion belonging to high Cognitive Dissonance category is higher than

average and low Cognitive Dissonance groups. In the case of average Self Compassion, the mean score of high Cognitive Dissonance is higher than average and low Cognitive Dissonance category. The mean scores of low Self Compassion category belonging to low Cognitive Dissonance category is higher than average and high Cognitive Dissonance groups. Also in low Self Compassion category, mean scores of Academic Procrastination are almost equal at high and average Cognitive Dissonance category. This is a clear evidence of the dependency of Academic Procrastination on the interaction between Cognitive Dissonance and Self Compassion for female sample.

**Influence of Cognitive Dissonance and Self Compassion on Academic Procrastination among rural higher secondary school students.**

The main effects of Cognitive Dissonance and Self Compassion on Academic Procrastination among rural higher secondary school students. The data were analysed with the help of 3X3 factorial ANOVA. And the results are presented in table 22. The influence of independent variables on dependent variable for rural higher secondary school students was calculated first and their interaction effect of Cognitive Dissonance and Self Compassion was also found out. The data were analysed with the help of 3X3 Factorial ANOVA and results are presented in table 22.

Table 22

*Summary of 3X3 factorial ANOVA of influence of Cognitive Dissonance and Self Compassion on Academic Procrastination for rural school students*

Source of variance	df	SS	MSS	F value	Sig.Value	Level of significance
Cognitive Dissonance	2	5148.35	2574.17	4.70	.00	.01
Self Compassion	2	17411.03	8705.51	15.92	.00	.01
Cognitive Dissonance X Self Compassion	4	5083.84	1270.96	2.32	.05	NS
Error	624	341216.90				

**Main Effects**

**Influence of Cognitive Dissonance on Academic Procrastination for rural school students**

From table 22 it is revealed that F value for Cognitive Dissonance is 4.70 which is significant at .01 level. Since the F value is greater than the table value 4.60 with df= 2/624. It means that mean scores of Academic Procrastination of students belonging to high, average, low Cognitive Dissonance group differ significantly. So, there is significant influence of Cognitive Dissonance on Academic Procrastination for rural School students. In order to know which groups mean score of Academic Procrastination is significantly higher, the data were further analysed with the help of Scheffe's test of post hoc comparison and the result are given in Table 23

Table 23

*Summary of Scheffe's test of Post hoc comparison between means of Cognitive Dissonance on Academic Procrastination for rural school students*

Sl No.	Groups Compared	Mean	Mean difference	SE	F	Sig. value	Level of significance
1.	High CD	191.63					
	Average CD	181.80	9.83	3.01	10.62	.00	.01
2.	High CD	191.63					
	Low CD	173.46	18.17	4.30	17.80	.00	.01
3.	Average CD	181.80					
	Low CD	173.46	8.34	3.40	6.00	.05	.05

From the table 23 shows that absolute difference between the mean scores of high Cognitive Dissonance group and average Cognitive Dissonance group for rural school students is 9.83, which is significant at .01 level of significance. Since the F value (10.62) is greater than  $F^1 = 9.2$  with df (2/624) at .01 level of significance. This shows that there is significant difference in the Academic Procrastination level of rural school students with high and average level of Cognitive Dissonance.

The difference between high Cognitive Dissonance group and low Cognitive Dissonance group for rural school students is 18.17, which is significant at .01 level of significance. Since the F value (17.80) is greater than  $F^1 = 9.2$  with df (2/624) at .01 level of significance. This shows that there is significant difference in the

Academic Procrastination level of rural school students with high and low level of Cognitive Dissonance.

The difference between mean scores of average Cognitive Dissonance group and low Cognitive Dissonance group for rural school students is 8.34, which is significant even at .05 level of significance. Since the calculated F value (6) is greater than  $F^l = 5.98$  with df (2/624) at .05 level of significance. This shows that there is significant difference in the Academic Procrastination level of rural school students with average and low level of Cognitive Dissonance.

It can be interpreted that high mean score of Academic Procrastination (191.63) indicated higher level of Cognitive Dissonance. It may therefore, be concluded that students of high Cognitive Dissonance group are found to have significantly higher Academic Procrastination than those of average and low Cognitive Dissonance group. Average Cognitive Dissonance group is significantly higher in Academic Procrastination than those of low Cognitive Dissonance group.

### **Influence of Self Compassion on Academic Procrastination for rural school students**

From table 22 it is revealed that F value for Self Compassion for rural school students is 15.92 which is significant at .01 level. Since the calculated F value is greater than the table value 4.60 with df= 2/624. It means that mean scores of Academic Procrastination of students belonging to high, average, low Self Compassion group differ significantly. So, there is significant influence of Self Compassion on Academic Procrastination for rural school students. In order to know

which groups mean score of Academic Procrastination is significantly higher, the data were further analysed with the help of Scheffe's test of post hoc comparison and the result are given in Table 24

Table 24

*Summary of Scheffe's Post hoc comparison between means of Self Compassion on Academic Procrastination for rural school students*

Sl No.	Groups Compared	Mean	Mean difference	SE	F	Sig. value	Level of significance
1.	High SC	165.44					
	Average SC	182.22	16.78	2.93	32.71	.00	.01
2.	High SC	165.44					
	Low SC	200.07	34.64	3.95	76.73	.00	.01
3.	Average SC	182.22					
	Low SC	200.07	17.86	3.04	34.45	.00	.01

From the table 24 shows that absolute difference between the mean scores of high Self Compassion group and average Self Compassion group for rural school students is 16.78, which is significant at .01 level of significance. Since the F value (32.71) is greater than the table value  $F^1 = 9.2$  with df (2/624) at .01 level of significance. This shows that there is significant difference in the Academic Procrastination level of rural students with high and average level of Self Compassion.



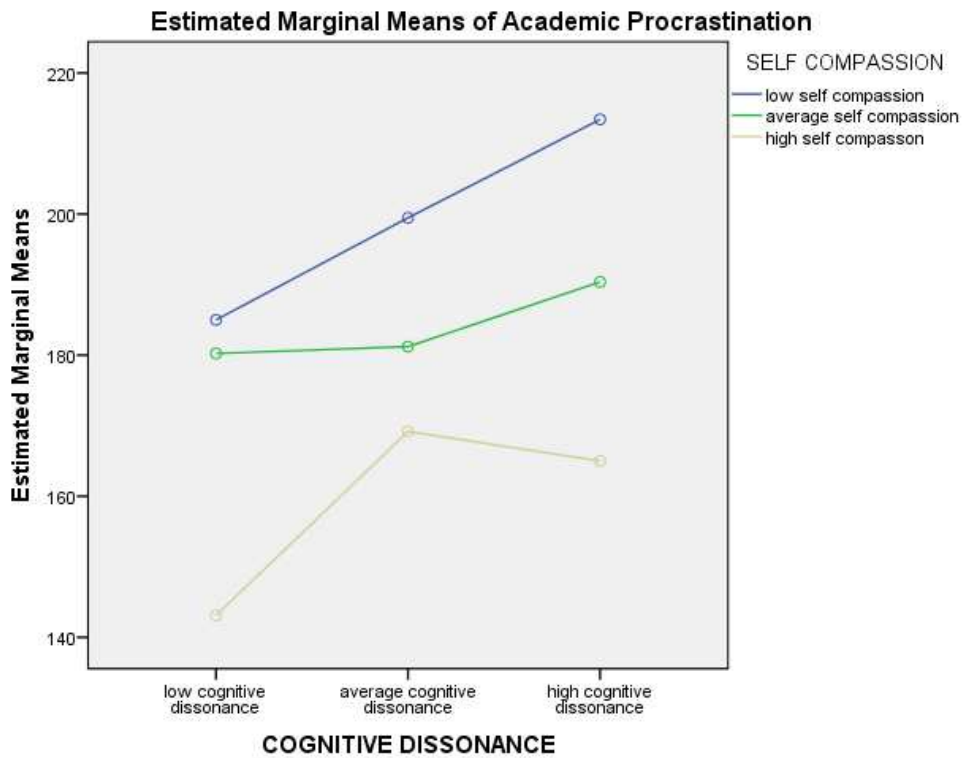
The difference between high Self Compassion group and low Self Compassion group for rural school students is 30.64 which is significant at .01 level of significance. Since the F value (76.73) is greater than  $F^1 = 9.2$  with df (2/624) at .01 level of significance. This shows that there is significant difference in the Academic Procrastination level of rural school students with high and low level of Self Compassion.

The difference between mean scores of average Self Compassion group and low Self Compassion group for rural school students is 17.86, which is significant at .01 level of significance. Since the calculated F value (34.45) is greater than  $F^1 = 9.2$  with df (2/624) at .01 level of significance. This shows that there is significant difference in the Academic Procrastination level of rural school students with average and low level of Self Compassion.

It can be interpreted that in the case of rural school students, high mean score of Academic Procrastination (200.07) indicated low level of Self Compassion and low mean score of Academic Procrastination (165.44) indicated high level of Self Compassion. It may therefore, be concluded that students of low Self Compassion group are found to have significantly higher Academic Procrastination than those of average and high Self Compassion group. Average Self Compassion group is significantly higher in Academic Procrastination than those of high Self Compassion group.

**First order Interaction Effects****Influence of interaction between Cognitive Dissonance and Self Compassion on Academic Procrastination for rural school students.**

The F value for interaction between Cognitive Dissonance and Self Compassion is 2.32 which is not significant even at .05 level of significance. Since the calculated F value is less than the table value 3.32 with df (4/624). It shows that the mean scores of Academic Procrastination of high, average, low Self Compassion belonging to high, average and low Self Compassion groups does not differ significantly. So there is no significant influence of the interaction between Cognitive Dissonance and Self Compassion on Academic Procrastination based on rural school students. In order to know the trend of influence of interaction between Cognitive Dissonance and Self Compassion Figure 16 has been plotted.



*Figure 16:* Profile plot of Interaction between Cognitive Dissonance and Self Compassion on Academic Procrastination for sub sample rural.

Figure 16 shows that in the case of rural sample, the mean scores of high Cognitive Dissonance belonging to low Self Compassion category is higher than average and high Self Compassion groups. In the case of average Cognitive Dissonance, the mean score of low Self Compassion is higher than average and high Self Compassion category. The mean scores of low Cognitive Dissonance category belonging to average Self Compassion is higher than low and high Self Compassion groups. This is a clear evidence of the dependency of Academic Procrastination on the interaction between Cognitive Dissonance and Self Compassion for rural sample.

**Influence of Cognitive Dissonance and Self Compassion on Academic Procrastination among urban higher secondary school students.**

The main effects of Cognitive Dissonance and Self Compassion on Academic Procrastination among urban higher secondary school students, the data were analysed with the help of 3X3 factorial ANOVA. And the results are presented in table 25. The influence of independent variables on dependent variable for urban higher secondary school students was calculated first and their interaction effect of Cognitive Dissonance and Self Compassion was also found out. The data were analysed with the help of 3X3 Factorial ANOVA and results are presented in table 25

Table25

*Summary of 3X3 factorial ANOVA of influence of Cognitive Dissonance and Self Compassion on Academic Procrastination for urban school students*

Source of variance	df	SS	MSS	F value	Sig.Value	Level of significance
Cognitive Dissonance	2	17660.88	8830.44	10.65	.00	.01
Self Compassion	2	14693.75	7346.87	8.86	.00	.01
Cognitive Dissonance X Self Compassion	4	2075.67	518.91	0.626	0.64	NS
Error	359	297440.93	828.52			

**Main Effects**

**Influence of Cognitive Dissonance on Academic Procrastination for urban school students**

From table 25 it is revealed that F value for Cognitive Dissonance is 10.65 which is significant at .01 level. Since the F value is greater than the table value 4.60 with  $df= 2/359$ . It means that mean scores of Academic Procrastination of students belonging to high, average, low Cognitive Dissonance group differ significantly. So, there is significant influence of Cognitive Dissonance on Academic Procrastination for urban School students. In order to know which groups mean score of Academic Procrastination is significantly higher, the data were further analysed with the help of Scheffe's test of post hoc comparison and the result are given in Table 26.

Table 26

*Summary of Scheffe's test of Post hoc comparison between means of Cognitive Dissonance on Academic Procrastination for urban school students*

Sl No.	Groups Compared	Mean	Mean difference	SE	F	Sig. value	Level of significance
1.	High CD	197.97	16.98	4.16	16.64	.00	.01
	Average CD	180.99					
2.	High CD	197.97	34.53	5.87	34.57	.00	.01
	Low CD	163.44					
3.	Average CD	180.99	17.55	4.82	13.24	.00	.01
	Low CD	163.44					

From the table 26 shows that absolute difference between the mean scores of high Cognitive Dissonance group and average Cognitive Dissonance group for urban school students is 16.98, which is significant at .01 level of significance. Since the F value (16.64) is greater than  $F^l = 9.2$  with df (2/359) at .01 level of significance. This shows that there is significant difference in the Academic Procrastination level of urban school students with high and average level of Cognitive Dissonance.

The difference between high Cognitive Dissonance group and low Cognitive Dissonance group for urban school students is 34.53, which is significant at .01 level of significance. Since the F value (34.57) is greater than  $F^l = 9.2$  with df (2/359) at .01 level of significance. This shows that there is significant difference in the Academic Procrastination level of urban school students with high and low level of Cognitive Dissonance.

The difference between mean scores of average Cognitive Dissonance group and low Cognitive Dissonance group for urban school students is 17.55, which is significant n at .01 level of significance. Since the calculated F value (13.24) is greater than  $F^l = 9.2$  with df (2/359) at .01 level of significance. This shows that there is significant difference in the Academic Procrastination level of urban school students with average and low level of Cognitive Dissonance.

It can be interpreted that high mean score of Academic Procrastination (197.97) indicated higher level of Cognitive Dissonance. It may therefore, be concluded that students of high Cognitive Dissonance group are found to have significantly higher Academic Procrastination than those of average and low

Cognitive Dissonance group. Average Cognitive Dissonance group is significantly higher in Academic Procrastination than those of low Cognitive Dissonance group.

**Influence of Self Compassion on Academic Procrastination for urban school students**

From table 25 it is revealed that F value for Self Compassion for urban school students is 8.86 which is significant at .01 level. Since the calculated F value is greater than the table value 4.60 with  $df= 2/359$ . It means that mean scores of Academic Procrastination of students belonging to high, average, low Self Compassion group differ significantly. So, there is significant influence of Self Compassion on Academic Procrastination for urban school students. In order to know which groups mean score of Academic Procrastination is significantly higher, the data were further analysed with the help of Scheffe's test of post hoc comparison and the result are given in Table 27

Table 27

*Summary of Scheffe's Post hoc comparison between means of Self Compassion on Academic Procrastination for urban school students*

Sl No.	Groups Compared	Mean	Mean difference	SE	F	Sig. value	Level of significance
1.	High SC	158.93					
	Average SC	184.93	26	3.93	43.69	.00	.01
2.	High SC	158.93					
	Low SC	195.45	36.52	5.12	50.83	.00	.01
3.	Average SC	184.93					
	Low SC	195.45	10.52	4.21	6.20	0.04	.05

From the table 27 shows that absolute difference between the mean scores of high Self Compassion group and average Self Compassion group for urban school students is 26, which is significant at .01 level of significance. Since the F value (43.69) is greater than the table value  $F^I = 9.2$  with df (2/359) at .01 level of significance. This shows that there is significant difference in the Academic Procrastination level of urban school students with high and average level of Self Compassion.

The difference between high Self Compassion group and low Self Compassion group for urban school students is 36.52 which is significant at .01 level of significance. Since the F value (50.83) is greater than  $F^I = 9.2$  with df (2/359) at .01 level of significance. This shows that there is significant difference in the Academic Procrastination level of urban school students with high and low level of Self Compassion.

The difference between mean scores of average Self Compassion group and low Self Compassion group for urban school students is 10.52, which is significant at .05 level of significance. Since the calculated F value (6.2) is greater than  $F^I = 5.98$  with df (2/359) at .05 level of significance. This shows that there is significant difference in the Academic Procrastination level of urban school students with average and low level of Self Compassion.

It can be interpreted that in the case of urban school students, high mean score of Academic Procrastination (195.45) indicated low level of Self Compassion and low mean score of Academic Procrastination (158.93) indicated high level of Self Compassion. It may therefore, be concluded that students of low Self

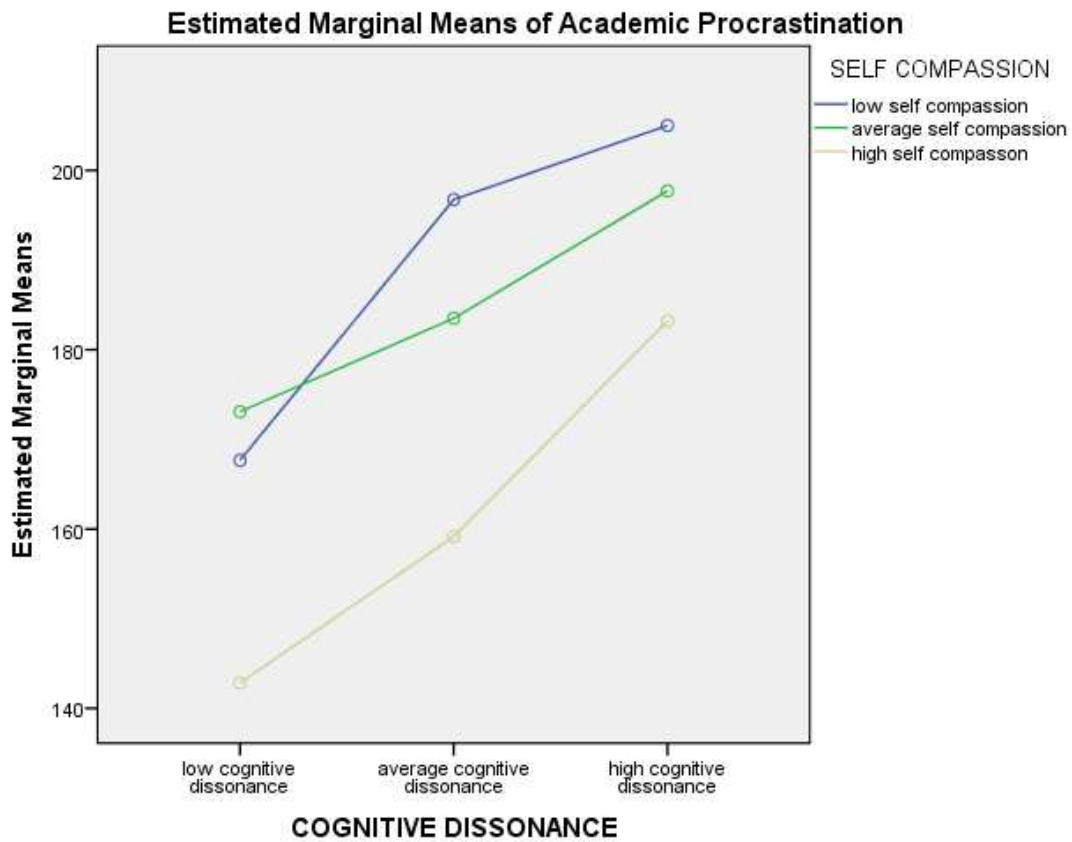


Compassion group are found to have significantly higher Academic Procrastination than those of average and high Self Compassion group. Average Self Compassion group is significantly higher in Academic Procrastination than those of high Self Compassion group.

### **First order Interaction Effects**

#### **Influence of interaction between Cognitive Dissonance and Self Compassion on Academic Procrastination for urban school students.**

The F value for interaction between Cognitive Dissonance and Self Compassion is 0.62 which is not significant even at .05 level of significance. Since the calculated F value is less than the table value 3.32 with df (4/359). It shows that the mean scores of Academic Procrastination of high, average, low Self Compassion belonging to high, average and low Self Compassion groups does not differ significantly. So there is no significant influence of the interaction between Cognitive Dissonance and Self Compassion on Academic Procrastination based on urban school students. In order to know the trend of influence of interaction between Cognitive Dissonance and Self Compassion Figure 17 has been plotted.



*Figure 17:* Profile plot of Interaction between Cognitive Dissonance and Self Compassion on Academic Procrastination for sub sample urban.

Figure 17 shows that in the case of urban sample, the mean scores of high Cognitive Dissonance belonging to low Self Compassion category is higher than average and high Self Compassion groups. In the case of average Cognitive Dissonance, the mean score of low Self Compassion is higher than average and high Self Compassion category. The mean scores of low Cognitive Dissonance category belonging to average Self Compassion is higher than low and high Self Compassion groups. This is a clear evidence of the dependency of Academic Procrastination on the interaction between Cognitive Dissonance and Self Compassion for urban sample.

**Influence of Cognitive Dissonance and Self Compassion on Academic Procrastination among Govt. higher secondary school students.**

The main effects of Cognitive Dissonance and Self Compassion on Academic Procrastination among govt. higher secondary school students. The data were analysed with the help of 3X3 factorial ANOVA. And the results are presented in table 28. The influence of independent variables on dependent variable for Govt. higher secondary school students was calculated first and their interaction effect of Cognitive Dissonance and Self Compassion was also found out. The data were analysed with the help of 3X3 Factorial ANOVA and results are presented in table 28

Table28

*Summary of 3X3 factorial ANOVA of influence of Cognitive Dissonance and Self Compassion on Academic Procrastination for Govt. school students*

Source of variance	df	SS	MSS	F value	Sig.Value	Level of significance
Cognitive Dissonance	2	12994.61	6497.30	10.73	.00	.01
Self Compassion	2	9632.67	4816.33	7.95	.00	.01
Cognitive Dissonance X Self Compassion	4	8193.976	2048.49	3.38	.01	.05
Error	462	279766.64	605.55			

## Main Effects

### Influence of Cognitive Dissonance on Academic Procrastination for govt. school students

From table 28 it is revealed that F value for Cognitive Dissonance is 10.73 which is significant at .01 level. Since the F value is greater than the table value 4.60 with  $df= 2/462$ . It means that mean scores of Academic Procrastination of students belonging to high, average, low Cognitive Dissonance group differ significantly. So, there is significant influence of Cognitive Dissonance on Academic Procrastination for govt. School students. In order to know which groups mean score of Academic Procrastination is significantly higher, the data were further analysed with the help of Scheffe's test of post hoc comparison and the result are given in Table 34

Table 29

*Summary of Scheffe's test of Post hoc comparison between means of Cognitive Dissonance on Academic Procrastination for Govt. school students*

Sl No.	Groups Compared	Mean	Mean difference	SE	F	Sig. value	Level of significance
1.	High CD	194.85					
	Average CD	184.24	10.61	3.15	11.28	.00	.01
2.	High CD	194.85					
	Low CD	169.00	25.85	5.27	24.01	.00	.01
3.	Average CD	184.24					
	Low CD	169.00	15.24	4.60	10.95	.00	.01

From the table 29 shows that absolute difference between the mean scores of high Cognitive Dissonance group and average Cognitive Dissonance group for govt school students is 10.61, which is significant at .01 level of significance. Since the F value (11.28) is greater than  $F^I = 9.2$  with df (2/462) at .01 level of significance. This shows that there is significant difference in the Academic Procrastination level of govt school students with high and average level of Cognitive Dissonance.

The difference between high Cognitive Dissonance group and low Cognitive Dissonance group for govt school students is 25.85, which is significant at .01 level of significance. Since the F value (24.01) is greater than  $F^I = 9.2$  with df (2/462) at .01 level of significance. This shows that there is significant difference in the Academic Procrastination level of govt school students with high and low level of Cognitive Dissonance.

The difference between mean scores of average Cognitive Dissonance group and low Cognitive Dissonance group for govt school students is 15.24, which is significant at .01 level of significance. Since the calculated F value (10.95) is greater than  $F^I = 9.2$  with df (2/462) at .01 level of significance. This shows that there is significant difference in the Academic Procrastination level of govt school students with average and low level of Cognitive Dissonance.

It can be interpreted that high mean score of Academic Procrastination (194.85) indicated higher level of Cognitive Dissonance. It may therefore, be concluded that students of high Cognitive Dissonance group are found to have significantly higher Academic Procrastination than those of average and low

Cognitive Dissonance group. Average Cognitive Dissonance group is significantly higher in Academic Procrastination than those of low Cognitive Dissonance group.

**Influence of Self Compassion on Academic Procrastination for govt school students**

From table 28 it is revealed that F value for Self Compassion for govt school students is 7.95 which is significant at .01 level. Since the calculated F value is greater than the table value 4.60 with  $df= 2/462$ . It means that mean scores of Academic Procrastination of students belonging to high, average, low Self Compassion group differ significantly. So, there is significant influence of Self Compassion on Academic Procrastination for govt school students. In order to know which groups mean score of Academic Procrastination is significantly higher, the data were further analysed with the help of Scheffe's test of post hoc comparison and the result are given in Table 30

Table 30

*Summary of Scheffe's Post hoc comparison between means of Self Compassion on Academic Procrastination for Govt. school students*

Sl No.	Groups Compared	Mean	Mean difference	SE	F	Sig. value	Level of significance
1.	High SC	165.09					
	Average SC	185.75	20.66	3.88	28.30	.00	.01
2.	High SC	165.09					
	Low SC	194.43	29.34	4.85	36.48	.00	.01
3.	Average SC	185.75					
	Low SC	194.43	8.68	3.42	6.40	0.04	.05

From the table 30 shows that absolute difference between the mean scores of high Self Compassion group and average Self Compassion group for govt school students is 20.66, which is significant at .01 level of significance. Since the F value (28.30) is greater than the table value  $F^I = 9.2$  with df (2/462) at .01 level of significance. This shows that there is significant difference in the Academic Procrastination level of male students with high and average level of Self Compassion.

The difference between high Self Compassion group and low Self Compassion group for govt school students is 29.34 which is significant at .01 level of significance. Since the F value (36.48) is greater than  $F^I = 9.2$  with df (2/462) at .01 level of significance. This shows that there is significant difference in the Academic Procrastination level of govt school students with high and low level of Self Compassion.

The difference between mean scores of average Self Compassion group and low Self Compassion group for govt school students is 8.68, which is significant at .05 level of significance. Since the calculated F value (6.40) is greater than  $F^I = 4.6$  with df (2/462) at .05 level of significance. This shows that there is significant difference in the Academic Procrastination level of govt school students with average and low level of Self Compassion.

It can be interpreted that in the case of govt school students, high mean score of Academic Procrastination (194.43) indicated low level of Self Compassion and low mean score of Academic Procrastination (165.09) indicated high level of Self Compassion. It may therefore, be concluded that students of low Self Compassion

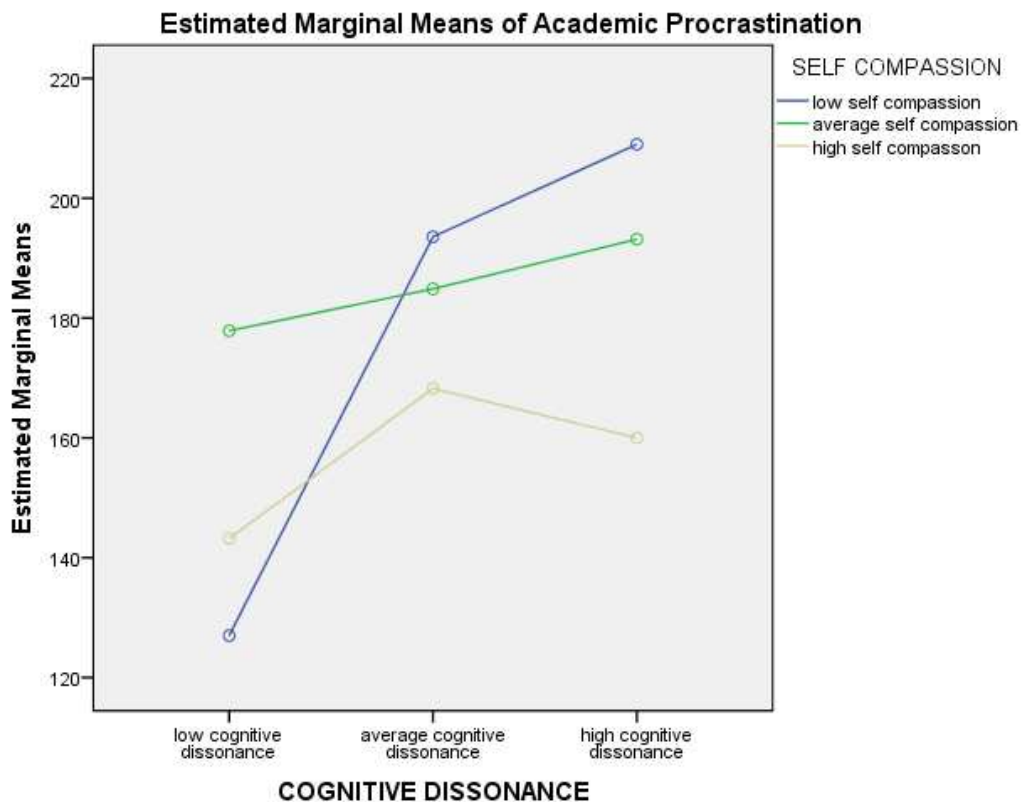
group are found to have significantly higher Academic Procrastination than those of average and high Self Compassion group. Average Self Compassion group is significantly higher in Academic Procrastination than those of high Self Compassion group.

### **First order Interaction Effects**

#### **Influence of interaction between Cognitive Dissonance and Self Compassion on Academic Procrastination for govt school students.**

The F value for interaction between Cognitive Dissonance and Self Compassion is 3.38 which is significant at .05 level of significance. Since the calculated F value is greater than the table value 3.32 with df (4/462). It shows that the mean scores of Academic Procrastination of high, average, low Self Compassion belonging to high, average and low Self Compassion groups differ significantly. So there is significant influence of the interaction between Cognitive Dissonance and Self Compassion on Academic Procrastination. It may therefore be concluded that Academic Procrastination is influenced by the interaction between Cognitive Dissonance and Self Compassion. In order to know the trend of influence of interaction between Cognitive Dissonance and Self Compassion Figure 18 has been plotted.





*Figure 18:* Profile plot of Interaction between Cognitive Dissonance and Self Compassion on Academic Procrastination for govt. School students.

Figure 8 shows that in the case of govt. school students, the mean scores of high Cognitive Dissonance belonging to low Self Compassion category is higher than average and high Self Compassion groups. In the case of average Cognitive Dissonance, the mean score of low Self Compassion is higher than average and high Self Compassion category. The mean scores of low Cognitive Dissonance category belonging to average Self Compassion is higher than low and high Self Compassion groups. This is a clear evidence of the dependency of Academic Procrastination on the interaction between Cognitive Dissonance and Self Compassion for govt. school students.

**Influence of Cognitive Dissonance and Self Compassion on Academic Procrastination among aided higher secondary school students.**

The main effects of Cognitive Dissonance and Self Compassion on Academic Procrastination among aided higher secondary school students. The data were analysed with the help of 3X3 factorial ANOVA. And the results are presented in table 31. The influence of independent variables on dependent variable for aided higher secondary school students was calculated first and their interaction effect of Cognitive Dissonance and Self Compassion was also found out. The data were analysed with the help of 3X3 Factorial ANOVA and results are presented in table 31.

Table31

*Summary of 3X3 factorial ANOVA of influence of Cognitive Dissonance and Self Compassion on Academic Procrastination for aided school students*

Source of variance	df	SS	MSS	F value	Sig.Value	Level of significance
Cognitive Dissonance	2	10974.41	5487.20	8.12	.00	.01
Self Compassion	2	22935.15	11467.57	16.98	.00	.01
Cognitive Dissonance X Self Compassion	4	4685.90	1171.47	1.73	0.14	NS
Error	521	351695.92	675.04			

**Main Effects**

**Influence of Cognitive Dissonance on Academic Procrastination for aided school students**

From table 31 it is revealed that F value for Cognitive Dissonance is 8.12 which is significant at .01 level. Since the F value is greater than the table value 4.60 with df= 2/521. It means that mean scores of Academic Procrastination of students belonging to high, average, low Cognitive Dissonance group differ significantly. So, there is significant influence of Cognitive Dissonance on Academic Procrastination for aided School students. In order to know which groups mean score of Academic Procrastination is significantly higher, the data were further analysed with the help of Scheffe's test of post hoc comparison and the result are given in Table 32.

Table 32

*Summary of Scheffe's test of Post hoc comparison between means of Cognitive Dissonance on Academic Procrastination for aided school students*

S1 No.	Groups Compared	Mean	Mean difference	SE	F	Sig. value	Level of significance
1.	High CD	194.13	15.01	3.79	15.68	.00	.01
	Average CD	179.12					
2.	High CD	194.13	25.07	4.86	26.52	.00	.01
	Low CD	169.06					
3.	Average CD	179.12	1.05	3.53	8.06	.01	.05
	Low CD	169.06					

From the table 32 shows that absolute difference between the mean scores of high Cognitive Dissonance group and average Cognitive Dissonance group for aided school students is 15.01, which is significant at .01 level of significance. Since the F value (15.68) is greater than  $F^I = 9.2$  with df (2/521) at .01 level of significance. This shows that there is significant difference in the Academic Procrastination level of aided school students with high and average level of Cognitive Dissonance.

The difference between high Cognitive Dissonance group and low Cognitive Dissonance group for aided school students is 25.07, which is significant at .01 level of significance. Since the F value (26.52) is greater than  $F^I = 9.2$  with df (2/521) at .01 level of significance. This shows that there is significant difference in the Academic Procrastination level of aided school students with high and low level of Cognitive Dissonance.

The difference between mean scores of average Cognitive Dissonance group and low Cognitive Dissonance group for aided school students is 1.05, which is significant at .01 level of significance. Since the calculated F value (8.06) is greater than  $F^I = 5.98$  with df (2/521) at .01 level of significance. This shows that there is significant difference in the Academic Procrastination level of aided school students with average and low level of Cognitive Dissonance.

It can be interpreted that high mean score of Academic Procrastination (194.13) indicated higher level of Cognitive Dissonance. It may therefore, be concluded that students of high Cognitive Dissonance group are found to have significantly higher Academic Procrastination than those of average and low

Cognitive Dissonance group. Average Cognitive Dissonance group is significantly higher in Academic Procrastination than those of low Cognitive Dissonance group.

**Influence of Self Compassion on Academic Procrastination for aided school students**

From table 31 it is revealed that F value for Self Compassion for aided school students is 16.98 which is significant at .01 level. Since the calculated F value is greater than the table value 4.60 with  $df= 2/521$ . It means that mean scores of Academic Procrastination of students belonging to high, average, low Self Compassion group differ significantly. So, there is significant influence of Self Compassion on Academic Procrastination for aided school students. In order to know which groups mean score of Academic Procrastination is significantly higher, the data were further analysed with the help of Scheffe's test of post hoc comparison and the result are given in Table 33

Table 33

*Summary of Scheffe's Post hoc comparison between means of Self Compassion on Academic Procrastination for aided school students*

Sl No.	Groups Compared	Mean	Mean difference	SE	F	Sig. value	Level of significance
1.	High SC	160.97	19.51	2.96	43.42	.00	.01
	Average SC	180.48					
2.	High SC	160.97	40.18	4.16	93.12	.00	.01
	Low SC	201.15					
3.	Average SC	180.48	20.68	3.49	35.04	.00	.01
	Low SC	201.15					

From the table 33 shows that absolute difference between the mean scores of high Self Compassion group and average Self Compassion group for aided school students is 19.51, which is significant at .01 level of significance. Since the F value (43.42) is greater than the table value  $F^I = 9.2$  with df (2/521) at .01 level of significance. This shows that there is significant difference in the Academic Procrastination level of aided students with high and average level of Self Compassion.

The difference between high Self Compassion group and low Self Compassion group for aided school students is 40.18 which is significant at .01 level of significance. Since the F value (93.12) is greater than  $F^I = 9.2$  with df (2/521) at .01 level of significance. This shows that there is significant difference in the Academic Procrastination level of aided school students with high and low level of Self Compassion.

The difference between mean scores of average Self Compassion group and low Self Compassion group for aided school students is 20.68, which is significant at .01 level of significance. Since the calculated F value (35.04) is greater than  $F^I = 9.2$  with df (2/521) at .01 level of significance. This shows that there is significant difference in the Academic Procrastination level of aided school students with average and low level of Self Compassion.

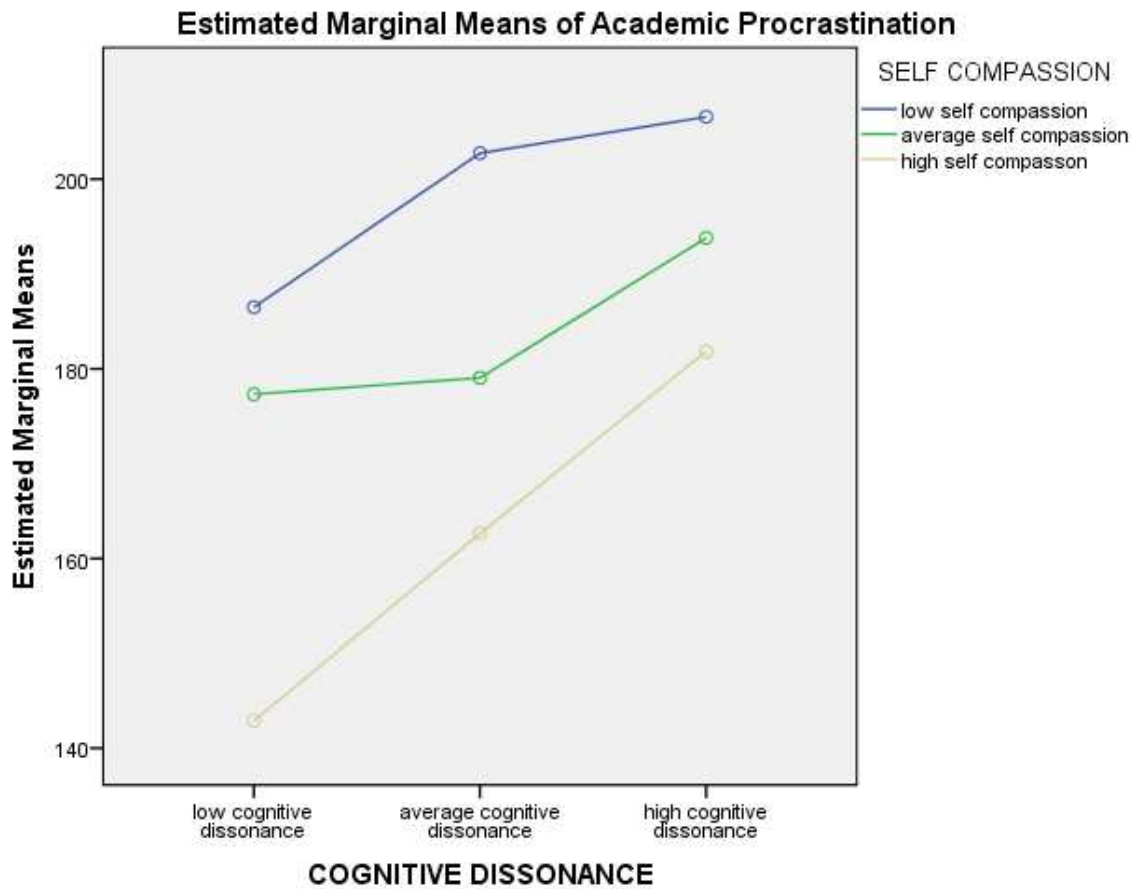
It can be interpreted that in the case of aided school students, high mean score of Academic Procrastination (201.15) indicated low level of Self Compassion and low mean score of Academic Procrastination (160.97) indicated high level of Self Compassion. It may therefore, be concluded that students of low Self

Compassion group are found to have significantly higher Academic Procrastination than those of average and high Self Compassion group. Average Self Compassion group is significantly higher in Academic Procrastination than those of high Self Compassion group.

### **First order Interaction Effects**

#### **Influence of interaction between Cognitive Dissonance and Self Compassion on Academic Procrastination for aided school students.**

The F value for interaction between Cognitive Dissonance and Self Compassion is 1.73 which is not significant even at .05 level of significance. Since the calculated F value is less than the table value 3.32 with df (4/521). It shows that the mean scores of Academic Procrastination of high, average, low Self Compassion belonging to high, average and low Self Compassion groups does not differ significantly. So there is no significant influence of the interaction between Cognitive Dissonance and Self Compassion on Academic Procrastination based on aided school students. In order to know the trend of influence of interaction between Cognitive Dissonance and Self Compassion Figure 19 has been plotted.



*Figure 19:* Profile plot of Interaction between Cognitive Dissonance and Self Compassion on Academic Procrastination for aided School students.

Figure 19 shows that in the case of aided school students, the mean scores of high Cognitive Dissonance belonging to low Self Compassion category is higher than average and high Self Compassion groups. In the case of average Cognitive Dissonance, the mean score of low Self Compassion is higher than average and high Self Compassion category. The mean scores of low Cognitive Dissonance category belonging to average Self Compassion is higher than low and high Self Compassion groups. This is a clear evidence of the dependency of Academic Procrastination on



the interaction between Cognitive Dissonance and Self Compassion for aided school students.

**Influence of Cognitive Dissonance and Self Compassion on Academic Procrastination among HSE students.**

The main effects of Cognitive Dissonance and Self Compassion on Academic Procrastination among HSE students. The data were analysed with the help of 3X3 factorial ANOVA. And the results are presented in table 34. The influence of independent variables on dependent variable for HSE students was calculated first and their interaction effect of Cognitive Dissonance and Self Compassion was also found out. The data were analysed with the help of 3X3 Factorial ANOVA and results are presented in table 34

Table34

*Summary of 3X3 factorial ANOVA of influence of Cognitive Dissonance and Self Compassion on Academic Procrastination for HSE students*

Source of variance	df	SS	MSS	F value	Sig.Value	Level of significance
Cognitive Dissonance	2	24717.65	12358.82	17.88	.00	.01
Self Compassion	2	23981.60	11990.80	17.35	.00	.01
Cognitive Dissonance X Self Compassion	4	5181.83	1295.45	1.87	0.11	NS
Error	691	477500.92	691.02			

**Main Effects**

**Influence of Cognitive Dissonance on Academic Procrastination for HSE students**

From table 34 it is revealed that F value for Cognitive Dissonance is 17.88 which is significant at .01 level. Since the F value is greater than the table value 4.60 with  $df= 2/691$ . It means that mean scores of Academic Procrastination of students belonging to high, average, low Cognitive Dissonance group differ significantly. So, there is significant influence of Cognitive Dissonance on Academic Procrastination for HSE students. In order to know which groups mean score of Academic Procrastination is significantly higher, the data were further analysed with the help of Scheffe's test of post hoc comparison and the result are given in Table 35

Table 35

*Summary of Scheffe's test of Post hoc comparison between means of Cognitive Dissonance on Academic Procrastination for HSE students*

Sl No.	Groups Compared	Mean	Mean difference	SE	F	Sig. value	Level of significance
1.	High CD	198.92					
	Average CD	181.53	17.39	3.16	30.25	.00	.01
2.	High CD	198.92					
	Low CD	167.53	31.40	4.22	55.80	.00	.01
3.	Average CD	181.53					
	Low CD	167.53	14	3.21	19	.00	.01

From the table 35 shows that absolute difference between the mean scores of high Cognitive Dissonance group and average Cognitive Dissonance group for science students is 17.39, which is significant at .01 level of significance. Since the F value (30.25) is greater than  $F^l = 9.2$  with df (2/691) at .01 level of significance. This shows that there is significant difference in the Academic Procrastination level of science students with high and average level of Cognitive Dissonance.

The difference between high Cognitive Dissonance group and low Cognitive Dissonance group for science students is 31.40, which is significant at .01 level of significance. Since the F value (55.8) is greater than  $F^l = 9.2$  with df (2/691) at .01 level of significance. This shows that there is significant difference in the Academic Procrastination level of science students with high and low level of Cognitive Dissonance.

The difference between mean scores of average Cognitive Dissonance group and low Cognitive Dissonance group for science students is 14, which is significant at .01 level of significance. Since the calculated F value (19) is greater than  $F^l = 9.2$  with df (2/691) at .01 level of significance. This shows that there is significant difference in the Academic Procrastination level of science students with average and low level of Cognitive Dissonance.

It can be interpreted that high mean score of Academic Procrastination (198.92) indicated higher level of Cognitive Dissonance. It may therefore, be concluded that students of high Cognitive Dissonance group are found to have significantly higher Academic Procrastination than those of average and low

Cognitive Dissonance group. Average Cognitive Dissonance group is significantly higher in Academic Procrastination than those of low Cognitive Dissonance group.

**Influence of Self Compassion on Academic Procrastination for HSE students**

From table 34 it is revealed that F value for Self Compassion for HSE students is 17.35 which is significant at .01 level. Since the calculated F value is greater than the table value 4.60 with  $df= 2/691$ . It means that mean scores of Academic Procrastination of students belonging to high, average, low Self Compassion group differ significantly. So, there is significant influence of Self Compassion on Academic Procrastination for HSE students. In order to know which groups mean score of Academic Procrastination is significantly higher, the data were further analysed with the help of Scheffe's test of post hoc comparison and the result are given in Table 36

Table 36

*Summary of Scheffe's Post hoc comparison between means of Self Compassion on Academic Procrastination for HSE students*

Sl No.	Groups Compared	Mean	Mean difference	SE	F	Sig. value	Level of significance
1.	High SC Average SC	162.49 183.06	20.57	2.78	54.61	.00	.01
2.	High SC Low SC	162.49 198.84	36.35	3.7	96.43	.00	.01
3.	Average SC Low SC	183.06 198.84	15.78	2.95	28.51	.00	.01

From the table 36 shows that absolute difference between the mean scores of high Self Compassion group and average Self Compassion group for HSE students is 20.57 which is significant at .01 level of significance. Since the F value (54.61) is greater than the table value  $F^I = 9.2$  with df (2/691) at .01 level of significance. This shows that there is significant difference in the Academic Procrastination level of HSE students with high and average level of Self Compassion.

The difference between high Self Compassion group and low Self Compassion group for HSE students is 36.35 which is significant at .01 level of significance. Since the F value (96.43) is greater than  $F^I = 9.2$  with df (2/691) at .01 level of significance. This shows that there is significant difference in the Academic Procrastination level of HSE students with high and low level of Self Compassion.

The difference between mean scores of average Self Compassion group and low Self Compassion group for HSE students is 15.78, which is significant at .01 level of significance. Since the calculated F value (28.51) is greater than  $F^I = 9.2$  with df (2/691) at .01 level of significance. This shows that there is significant difference in the Academic Procrastination level of HSE students with average and low level of Self Compassion.

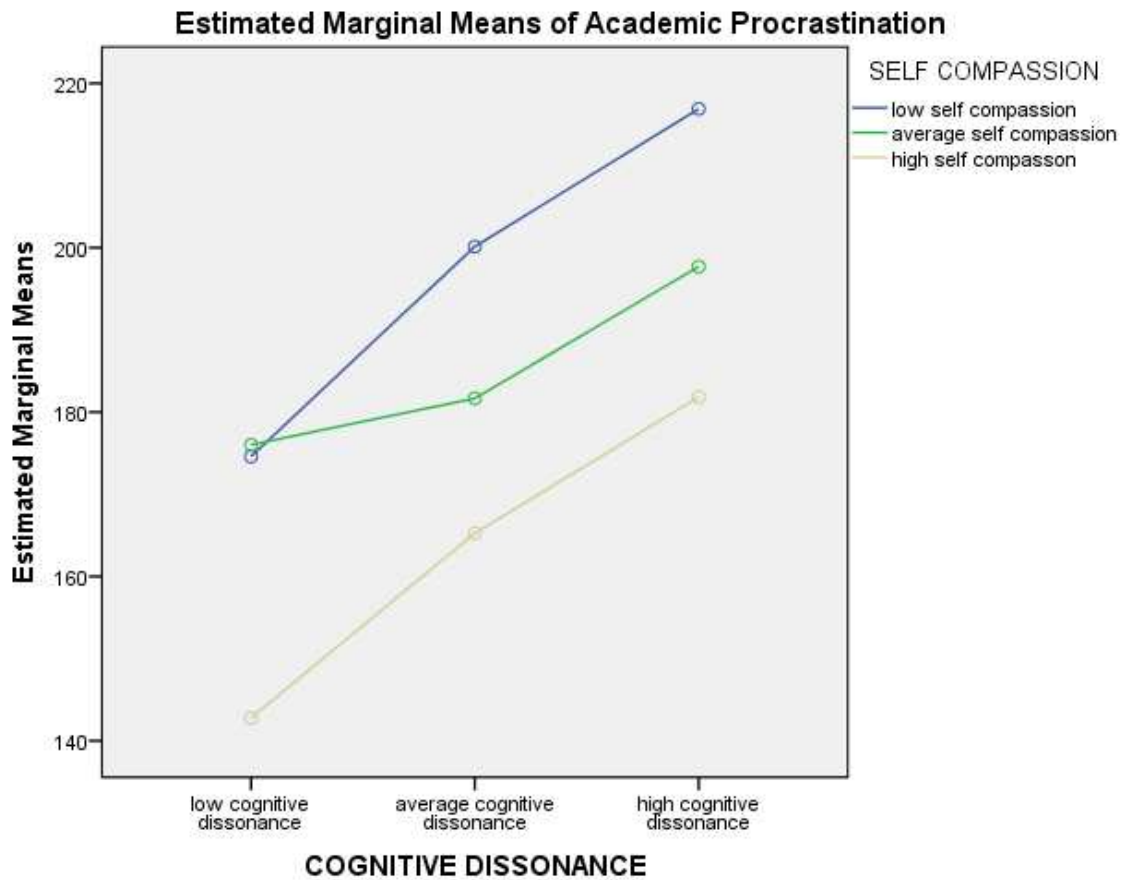
It can be interpreted that in the case of HSE students, high mean score of Academic Procrastination (198.84) indicated low level of Self Compassion and low mean score of Academic Procrastination (162.49) indicated high level of Self Compassion. It may therefore, be concluded that students of low Self Compassion group are found to have significantly higher Academic Procrastination than those of average and high Self Compassion group. Average Self Compassion group is

significantly higher in Academic Procrastination than those of high Self Compassion group.

### **First order Interaction Effects**

#### **Influence of interaction between Cognitive Dissonance and Self Compassion on Academic Procrastination for HSE students.**

The F value for interaction between Cognitive Dissonance and Self Compassion is 1.87 which is not significant even at .05 level of significance. Since the calculated F value is less than the table value 3.32 with df (4/691). It shows that the mean scores of Academic Procrastination of high, average, low Self Compassion belonging to high, average and low Self Compassion groups does not differ significantly. So there is no significant influence of the interaction between Cognitive Dissonance and Self Compassion on Academic Procrastination based on HSE students. In order to know the trend of influence of interaction between Cognitive Dissonance and Self Compassion Figure 20 has been plotted.



*Figure 20:* Profile plot of Interaction between Cognitive Dissonance and Self Compassion on Academic Procrastination for Higher Secondary School students.

Figure 20 shows that in the case of higher secondary school students, the mean scores of high Cognitive Dissonance belonging to low Self Compassion category is higher than average and high Self Compassion groups. In the case of average Cognitive Dissonance, the mean score of low Self Compassion is higher than average and high Self Compassion category. The mean scores of low Cognitive Dissonance category belonging to average Self Compassion is higher than low and high Self Compassion groups. This is a clear evidence of the

dependency of Academic Procrastination on the interaction between Cognitive Dissonance and Self Compassion for higher secondary school students.

**Influence of Cognitive Dissonance and Self Compassion on Academic Procrastination among VHSE students.**

The main effects of Cognitive Dissonance and Self Compassion on Academic Procrastination among VHSE students. The data were analysed with the help of 3X3 factorial ANOVA. And the results are presented in table 37. The influence of independent variables on dependent variable for VHSE students was calculated first and their interaction effect of Cognitive Dissonance and Self Compassion was also found out. The data were analysed with the help of 3X3 Factorial ANOVA and results are presented in table 37

Table37

*Summary of 3X3 factorial ANOVA of influence of Cognitive Dissonance and Self Compassion on Academic Procrastination for VHSE students*

Source of variance	df	SS	MSS	F value	Sig.Value	Level of significance
Cognitive Dissonance	2	726.85	363.42	0.66	0.51	NS
Self Compassion	2	9760.62	4880.31	8.88	.00	.01
Cognitive Dissonance X Self Compassion	3	912.24	304.08	0.55	0.64	NS
Error	293	161002.04	549.49			



## **Main Effects**

### **Influence of Cognitive Dissonance on Academic Procrastination for VHSE students**

From table 37 it is revealed that F value for Cognitive Dissonance is 0.66 which is not significant even at .05 level of significance. Since the F value is less than the table value 2.99 with  $df= 2/293$ . It means that mean scores of Academic Procrastination of students belonging to high, average, low Cognitive Dissonance group does not differ significantly. So, there is no significant influence of Cognitive Dissonance on Academic Procrastination for VHSE students.

### **Influence of Self Compassion on Academic Procrastination for VHSE students**

From table 37 it is revealed that F value for Self Compassion for VHSE students is 8.88 which is significant at .01 level. Since the calculated F value is greater than the table value 4.60 with  $df= 2/293$ . It means that mean scores of Academic Procrastination of students belonging to high, average, low Self Compassion group differ significantly. So, there is significant influence of Self Compassion on Academic Procrastination for VHSE students. In order to know which groups mean score of Academic Procrastination is significantly higher, the data were further analysed with the help of Scheffe's test of post hoc comparison and the result are given in Table 38

Table 38

*Summary of Scheffe's Post hoc comparison between means of Self Compassion on Academic Procrastination for VHSE students*

Sl No.	Groups Compared	Mean	Mean difference	SE	F	Sig. value	Level of significance
1.	High SC	161.58					
	Average SC	183.21	21.64	4.35	24.74	.00	.01
2.	High SC	161.58					
	Low SC	195.16	33.59	5.86	32.85	.00	.01
3.	Average SC	183.21					
	Low SC	195.16	11.95	4.47	7.12	.00	.01

From the table 38 shows that absolute difference between the mean scores of high Self Compassion group and average Self Compassion group for VHSE students is 21.64 which is significant at .01 level. Since the F value (24.74) is greater than the table value  $F^I = 9.2$  with df (2/293) at .01 level of significance. This shows that there is significant difference in the Academic Procrastination level of VHSE students with high and average level of Self Compassion.

The difference between high Self Compassion group and low Self Compassion group for VHSE students is 33.59 which is significant at .01 level of significance. Since the F value (32.85) is greater than  $F^I = 9.2$  with df (2/293) at .01 level of significance. This shows that there is significant difference in the Academic Procrastination level of VHSE students with high and low level of Self Compassion.

The difference between mean scores of average Self Compassion group and low Self Compassion group for VHSE students is 11.95, which is significant at .01 level of significance. Since the calculated F value (7.12) is greater than  $F^1 = 5.98$  with df (2/293) at .01 level of significance. This shows that there is significant difference in the Academic Procrastination level of VHSE students with average and low level of Self Compassion.

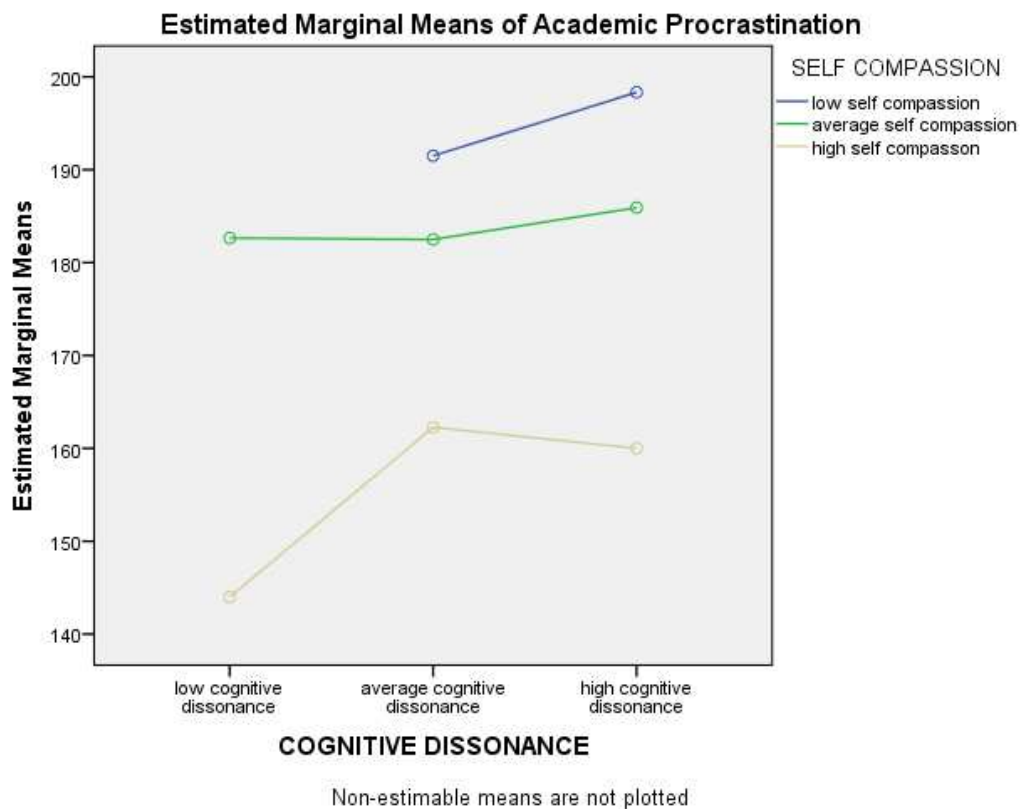
It can be interpreted that in the case of VHSE students, high mean score of Academic Procrastination (195.16) indicated low level of Self Compassion and low mean score of Academic Procrastination (161.58) indicated high level of Self Compassion. It may therefore, be concluded that students of low Self Compassion group are found to have significantly higher Academic Procrastination than those of average and high Self Compassion group. Average Self Compassion group is significantly higher in Academic Procrastination than those of high Self Compassion group.

### **First order Interaction Effects**

#### **Influence of interaction between Cognitive Dissonance and Self Compassion on Academic Procrastination for VHSE students.**

The F value for interaction between Cognitive Dissonance and Self Compassion is 0.55 which is not significant even at .05 level of significance. Since the calculated F value is less than the table value 2.60 with df (3/293). It shows that the mean scores of Academic Procrastination of high, average, low Self Compassion belonging to high, average and low Self Compassion groups does not differ

significantly. So there is no significant influence of the interaction between Cognitive Dissonance and Self Compassion on Academic Procrastination based on VHSE students. In order to know the trend of influence of interaction between Cognitive Dissonance and Self Compassion Figure 21 has been plotted.



*Figure 21:* Profile plot of Interaction between Cognitive Dissonance and Self Compassion on Academic Procrastination for VHSE students.

Figure 21 shows that in the case of VHSE students, the mean scores of high Cognitive Dissonance belonging to low Self Compassion category is higher than average and high Self Compassion groups. In the case of average Cognitive Dissonance, the mean score of low Self Compassion is higher than average and high Self Compassion category. The mean scores of low Cognitive Dissonance category

belonging to average Self Compassion is higher than low and high Self Compassion groups. This is a clear evidence of the dependency of Academic Procrastination on the interaction between Cognitive Dissonance and Self Compassion for VHSE students.

### **Discussion of the Results of ANOVA for Academic Procrastination**

As the analysis process comprises Nine Two way ANOVA (total sample and Eight subsamples) it is badly needed to present the results in a summarized form. The focus of the study is to determine the main and interaction effects of Cognitive Dissonance and Self Compassion on Academic Procrastination. The investigation is conducted for the total sample and further carried to the sub samples formed on the basis of gender, locale, type of management and stream of study.

Till now the ANOVA table presented graphical representation and their corresponding interpretations are given sample wise separately that is for total sample and sub samples such as boys, girls, rural, urban. Govt, aided, HSE and VHSE. In this part of the chapter, the whole observations and results are consolidated and presented. And it is hoped that this will be helpful to reach more meaningful interpretation from the obtained data. The summary of ANOVA presented in the following table. 39

Table :39

*Summary of 3x3 factorial ANOVA of Influence of Cognitive Dissonance and Self Compassion on Academic Procrastination for total sample and relevant subsamples.*

Nature of Sample	Source of Variation	Main Effects		Interaction effects
		Cognitive Dissonance	Self Compassion	Cognitive Dissonance x Self Compassion
Total	SS	20921.48	30086.29	6169.26
	df	2	2	4
	MS	10460.74	15043.14	1542.31
Boys	F	16.08**	23.12**	2.37
	SS	17581.13	12906.11	10331.96
	df	2	2	4
Girls	MS	8790.56	6453.05	2582.99
	F	12.52**	9.19**	3.67**
	SS	2843.63	27254.88	10158.92
Rural	df	2	2	4
	MS	1421.81	13627.44	2539.73
	F	2.41	23.13**	4.31**
Urban	SS	5148.35	17411.03	5083.84
	df	2	2	4
	MS	2574.17	8705.51	1270.96
Govt.	F	4.70**	15.92**	2.32
	SS	17660.88	14693.75	2075
	df	2	2	4
Aided	MS	8830.44	7346.87	518.91
	F	10.65**	8.86**	0.62
	SS	12994.61	9632.67	8193.97
HSE	df	2	2	4
	MS	6497.3	4816.33	2048.49
	F	10.73**	7.95**	3.38*
VHSE	SS	10974.41	22935.15	4685.90
	df	2	2	4
	MS	5487.20	11467.57	1171.47
VHSE	F	8.12**	16.98**	1.73
	SS	24717.65	23981.60	5181.83
	df	2	2	4
VHSE	MS	12358.82	11990.80	1295.45
	F	17.88**	17.35**	1.87
	SS	726.85	9760.62	912.24
VHSE	df	2	2	3
	MS	363.42	4880.31	304.08
	F	0.66	8.88**	0.55

\*\* p<.01- significance at .01 level

\*p<.05 –significance at .05 level

A scrutiny of the summary table 39 of two-way ANOVA unveils the following facts

Main effects of Cognitive Dissonance on Academic Procrastination are significant except sub sample girls and VHSE.

Main effects of Self Compassion on Academic Procrastination are significant for total sample and all relevant subsamples.

The interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination is significant only in boys, girls and govt subsamples.

### **Multiple Regression Analysis**

Multiple correlation and regression analysis using enter method has been employed to find out

1. The individual and joint contributions of Cognitive Dissonance and Self Compassion in predicting Academic Procrastination of higher secondary school students
2. The individual and joint contributions of Self Kindness, Common Humanity and Mindfulness in Predicting Academic Procrastination of higher secondary school students.

Analysis has been done using SPSS programme and details presented. Enter method is a regression method in which predictors are forced into the model simultaneously. This method relies on good theoretical reasons for including the

chosen predictors, but the experimenter makes no decision about the order in which variables are entered. Researchers believe that this method is the only appropriate method for theory testing because stepwise techniques are influenced by random variation in the data and seldom give replicable results if the model is retested.

**The individual and joint contributions of Cognitive Dissonance and Self Compassion in predicting Academic Procrastination of higher secondary school students**

The data of inter –correlation of criterion variable with two predictor variables are given in table 40

Table 40

*Correlation matrix of variables*

Variables	Academic Procrastination	Self Compassion	Cognitive Dissonance
Academic Procrastination	1.00	-0.43	0.26
Self Compassion	-0.43	1.00	-0.16
Cognitive Dissonance	0.26	-0.16	1.00

It can be observed from table 40 that the predictor variable Self Compassion obtained highest correlation coefficient (r=-0.43) with the criterion variable. The second in the sequence is Cognitive Dissonance (r= 0.26). this model summary of multiple regression analysis is presented in table 41.



Table 41

*Model summary of multiple correlation coefficients for Academic Procrastination*

Predictors	R	R <sup>2</sup>	Level Of Significance
Cognitive Dissonance Self Compassion	0.47	0.227	.01

Table 41 shows that the multiple correlation coefficient was found to be 0.47 which is significant at .01 level. It means that Cognitive Dissonance and Self Compassion jointly contribute significantly in predicting Academic Procrastination among higher secondary school students. Further the percentage of joint contribution of Cognitive Dissonance and Self Compassion in predicting Academic Procrastination is 22.7 percent. In order to know the individual contributions, the data were further analysed with the help of regression analysis and the results are presented in table 42.

Table 42

*Variable- wise Beta coefficients, percentage of contribution and t values in prediction Academic Procrastination*

Predictors	Beta Coefficients	% of Contribution	t Value	Sig. value	Level of significance
Cognitive Dissonance	0.194	5.04	6.87	.00	.01
Self Compassion	-0.40	17.2	14.14	.00	.01

From table 42 it is evident that Beta Coefficients for Cognitive Dissonance and Self Compassion is 0.194 and -0.40, which are significant at .01 level. It means

that the individual contribution of Cognitive Dissonance and Self Compassion in predicting Academic Procrastination is significant. Further, the individual contributions of Cognitive Dissonance and Self Compassion in predicting Academic Procrastination is 5.04 percent, 17.2 percent respectively. Looking at the individual contribution, it can be said that Self Compassion contributes higher than Cognitive Dissonance. Cognitive Dissonance comes second in the sequence in predicting Academic Procrastination. Thus Academic Procrastination can be reduced by improving Self Compassion. For predicting Academic Procrastination from two predictor variables, viz Cognitive Dissonance and Self Compassion, the regression equation is calculated and presented as follows.

$$Y = 1.092 X_1 - 0.549 X_2 + 182.56$$

Where

Y = Academic Procrastination

X<sub>1</sub> = Cognitive Dissonance

X<sub>2</sub> = Self Compassion

This equation can be used for Academic Procrastination of higher secondary school students provided the score of the subject in Self Compassion and Cognitive Dissonance is known.

**The individual and joint contributions of Self Kindness, Common Humanity and Mindfulness in Predicting Academic Procrastination of higher secondary school students**

The data of inter –correlation of criterion variable with two predictor variables are given in table 43

Table 43

*Correlation matrix of variables*

Variables	Academic Procrastination	Self Kindness	Common Humanity	Mindfulness
Academic Procrastination	1	-0.37	-0.35	-0.27
Self Kindness	-0.37	1	0.58	0.18
Common Humanity	-0.35	0.58	1	0.39
Mindfulness	-0.27	0.18	0.39	1

It can be observed from table 43 that the predictor variable self kindness obtained highest correlation coefficient ( $r=-0.37$ ) with the criterion variable. The second in the sequence is Common Humanity ( $r= 0.35$ ). This model summary of multiple regression analysis is presented in table 44.

Table 44

*Model summary of multiple correlation coefficients for Academic Procrastination*

Predictors	R	R <sup>2</sup>	Level Of Significance
Self Kindness Common Humanity Mindfulness	0.43	0.19	.01

Table 44 shows that the multiple correlation coefficient was found to be 0.43 which is significant at .01 level. It means that Self Kindness, Common Humanity and Mindfulness jointly contribute significantly in predicting Academic Procrastination among higher secondary school students. Further the percentage of joint contribution of Self Kindness, Common Humanity and Mindfulness in predicting Academic Procrastination is 19 percent. In order to know the individual contributions, the data were further analysed with the help of regression analysis and the results are presented in table 45.

Table 45

*Variable- wise Beta coefficients, percentage of contribution and t values in prediction Academic Procrastination*

Predictors	Beta Coefficients	% of Contribution	t Value	Sig. value	Level of significance
Self Kindness	-0.22	8.14	6.45	.00	.01
Common Humanity	-0.17	5.95	4.63	.00	.01
Mindfulness	-0.16	4.32	5.18	.00	.01

From table 45 it is evident that Beta Coefficients for Cognitive Dissonance and Self Compassion is 0.194 and -0.40, which are significant at .01 level. It means that the individual contribution of Self Kindness, Common Humanity and Mindfulness in predicting Academic Procrastination is significant. Further, the individual contributions of Self Kindness, Common Humanity and Mindfulness in predicting Academic Procrastination is 8.14 percent, 5.95, 4.32 percent respectively. Looking at the individual contribution, it can be said that self kindness

contributes higher than common humanity and mindfulness. Mindfulness comes third in the sequence in predicting Academic Procrastination. Thus Academic Procrastination can be reduced by improving the components of Self Compassion viz self kindness, common humanity and mindfulness. The regression equation is calculated and presented as follows.

$$Y = -0.6 X_1 - 0.646 X_2 - 0.53 X_3 + 273.22$$

Where

Y = Academic Procrastination

X<sub>1</sub> = Self Kindness

X<sub>2</sub> = Mindfulness

This equation can be used for Academic Procrastination of higher secondary school students provided the score of the subject in Self Kindness, Common Humanity and Mindfulness is known.

## **Findings**

The findings of the study are

1. Male and female students are significantly differ in Self Compassion and its components Self Kindness and Common humanity, but does not differ in Mindfulness, Cognitive Dissonance and Academic Procrastination.
2. Rural and Urban students does not differ significantly in Cognitive Dissonance, Self Compassion (total score and its components) and Academic Procrastination.

3. Govt and aided students significantly differ in Cognitive Dissonance , Self Compassion (total score and its components) and Academic Procrastination.
4. HSE and VHSE students significantly differ in Cognitive Dissonance. But not differ in Self Compassion (total score and component wise) and Academic Procrastination.
5. Main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination is significant for total sample
6. Main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination for boys is significant.
7. In the case of girls, main effect of Cognitive Dissonance on Academic Procrastination is not significant. Main effect of Self Compassion on Academic Procrastination is significant.
8. For rural students main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination is significant
9. For urban students main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination is significant
10. For govt students main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination is significant
11. For aided students Main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination is significant.
12. For HSE students main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination is significant

13. For VHSE students, main effect of Cognitive Dissonance on Academic Procrastination is not significant. Main effect of Self Compassion on Academic Procrastination is significant
14. For total sample, the interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination is not significant
15. The interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination for male sample is significant.
16. The interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination for female sample is significant
17. The interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination for rural school students is not significant.
18. The interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination for urban school students is not significant.
19. The interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination for Govt. students is significant.
20. The interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination for Aided school students is not significant
21. The interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination for HSE students is not significant.
22. The interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination for VHSE students is not significant.
23. Significant individual and joint contribution of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students.

24. Significant individual and joint contribution of Self Compassion components on Academic Procrastination among higher secondary school students.

**Tenability of hypotheses**

Based on the findings the tenability of hypotheses set for the study, was examined and the following conclusions are made

Table 46

*Tenability of Hypotheses*

<b>Sl No.</b>	<b>Hypotheses</b>	<b>Remarks</b>
1.	There exist significant gender difference in the mean scores of Cognitive Dissonance, Self Compassion (total score and its components) and Academic Procrastination among higher secondary school students	Partially Substantiated
2.	There exist significant locale difference in the mean scores of Cognitive Dissonance, Self Compassion (total score and components) and Academic Procrastination among higher secondary school students	Rejected
3.	There exist significant management difference in the mean scores of Cognitive Dissonance, Self Compassion (total score and components) and Academic Procrastination among higher secondary school students	Rejected
4.	There exist significant difference in the mean scores of Cognitive Dissonance, Self Compassion (total score and components) and Academic Procrastination among higher secondary school students based on stream of study	Partially substantiated
5.	The main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for total sample.	Accepted
6.	The main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for subsample boys	Accepted
7.	The main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for subsample girls.	Partially Substantiated



<b>Sl No.</b>	<b>Hypotheses</b>	<b>Remarks</b>
8.	The main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for rural subsample.	Accepted
9.	The main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for urban subsample	Accepted
10.	The main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for government subsample	Accepted
11.	The main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for aided subsample	Accepted
12.	The main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for HSE students	Accepted
15.	The main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for VHSE students	Partially Substantiated
16.	The first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for total sample	Rejected
17.	The first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for subsample boys	Accepted
18.	The first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for subsample girls	Accepted
19.	The first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for rural subsample	Rejected
20.	The first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for urban subsample	Rejected
21.	The first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for government subsample	Accepted
22.	The first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for aided subsample	Rejected

Sl No.	Hypotheses	Remarks
23.	The first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is not significant for HSE students	Rejected
26.	The first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is not significant for VHSE students	Rejected
27.	There is significant individual and combined contribution of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students of Kerala for total sample.	Accepted
28.	There is significant individual and combined contribution of Self Compassion components on Academic Procrastination among higher secondary school students of Kerala for total sample	Accepted

The first hypotheses states that there exist significant gender difference in the mean scores of Cognitive Dissonance, Self Compassion (total score and components) and Academic Procrastination among higher secondary school students. The findings of the study reveal that there exists significant difference in the Self Compassion and its components self kindness and common humanity of male and female higher secondary school students. There is no significant difference in the Mindfullnes, Cognitive Dissonance and Academic Procrastination of male and female higher secondary school students. Hence the first hypothesis is partially substantiated.

The second hypothesis states that there exist significant locale difference in the mean scores of Cognitive Dissonance, Self Compassion (total score and components) and Academic Procrastination among higher secondary school students. Results of statistical analysis reveal that there is no significant difference in

the Cognitive Dissonance, Self Compassion (total score and its components) and Academic Procrastination between rural and urban higher secondary school students. Therefore the second hypothesis is completely rejected.

The third hypothesis states that there exist significant management difference in the mean scores of Cognitive Dissonance, Self Compassion (total score and components) and Academic Procrastination among higher secondary school students. Results of the study show that there is significant difference in the Cognitive Dissonance and Self Compassion (total score and components) and Academic Procrastination between Govt. and Aided higher secondary school students. Therefore the third hypothesis is completely accepted.

The fourth hypothesis states that there exist significant difference in the mean scores of Cognitive Dissonance, Self Compassion (total score and components) and Academic Procrastination among higher secondary school students based on course of study. The study reveals that there is significant difference between HSE and VHSE students in Cognitive Dissonance, common humanity. But there is no significant difference in Self Compassion and its components self kindness, mindfulness and Academic Procrastination between HSE and VHSE students. Hence this hypothesis is partially substantiated.

The fifth hypothesis states that the main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for total sample. The result shows that main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination is significant. Hence this hypothesis is completely accepted.

The sixth hypothesis states that the main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for subsample boys. The findings shows that main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination is significant. This hypothesis is completely accepted.

The seventh hypothesis states that the main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for subsample girls. *The result revealed that* main effect of Cognitive Dissonance on Academic Procrastination is not significant. Main effect of Self Compassion on Academic Procrastination is significant. Therefore the hypothesis is partially substantiated.

The eighth hypothesis states that the main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for rural subsample. Findings of the study shows main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination is significant. Hence the hypothesis is completely accepted.

The ninth hypothesis states that the main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for urban subsample. Results of statistical analysis shows that main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination is significant. So the hypothesis is completely accepted.

The tenth hypothesis states that the main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for government subsample. The study reveals that main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination is significant. Hence the hypothesis is completely accepted.

The eleventh hypothesis states that the main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for aided subsample. Main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination is significant. Therefore the hypothesis is completely accepted.

The twelfth hypothesis states that the main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for HSE students. Main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination is significant. Hence this hypothesis is completely accepted.

The thirteenth hypothesis states that the main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for VHSE students. Main effect of Self Compassion on Academic Procrastination is significant. Main effect of Cognitive Dissonance on Academic Procrastination is not significant. So the hypothesis is partially substantiated.

The fourteenth hypothesis states that the first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for total sample. The interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination is not significant. So the hypothesis is rejected.

The fifteenth hypothesis states that the first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for subsample boys. The interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination for male sample is significant. Hence the hypothesis is accepted.

The sixteenth hypothesis states that the first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for subsample girls. The interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination for female sample is significant. Therefore this hypothesis is accepted.

The seventeenth hypothesis states that the first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for rural subsample. The interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination for rural school students is not significant. So the hypothesis is rejected.

The eighteenth hypothesis states that the first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among

higher secondary school students is significant for urban subsample. The interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination for urban school students is not significant. Hence the hypothesis is rejected.

The nineteenth hypothesis states that the first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for government subsample. The interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination for Govt. students is significant. So the hypothesis is accepted.

The twentieth hypothesis states that the first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for aided subsample. The interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination for Aided school students is not significant. So this hypothesis is rejected.

The twenty first hypothesis states that the first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for HSE students. The interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination for HSE students is not significant. Hence the hypothesis is rejected.

The twenty second hypothesis states that *the* first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for VHSE students. The interaction

effect of Cognitive Dissonance and Self Compassion on Academic Procrastination for VHSE students is not significant. So the hypothesis is rejected

The twenty third hypothesis states that there is significant individual and combined contribution of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students of Kerala for total sample. Results of multiple regression analysis shows that there is a significant individual and joint contribution of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students. Therefore this hypothesis is completely accepted.

The last hypothesis states that there is significant individual and combined contribution of Self Compassion components viz., self kindness, common humanity and mindfulness on Academic Procrastination among higher secondary school students of Kerala for total sample. Results of multiple regression analysis shows that there is a significant individual and joint contribution of self kindness, common humanity and mindfulness on Academic Procrastination among higher secondary school students. Therefore this hypothesis is completely accepted.



## SUMMARY OF FINDINGS AND SUGGESTIONS

- *Study in retrospect*
- *Major findings of the study*
- *Tenability of Hypotheses*
- *Conclusions*
- *Suggestion for improving Educational practice*
- *Suggestion for further research*

## **SUMMARY OF FINDINGS AND SUGGESTIONS**

In this chapter an overview of the important aspects of the stages of executing the study, the major findings of the study and their educational significance, suggestion for improving educational practices and suggestion for further research are presented in brief. This chapter is organized under the following headings

- ✓ Study in retrospect
- ✓ Major findings of the study
- ✓ Tenability of Hypotheses
- ✓ Conclusions
- ✓ Suggestion for improving Educational practice
- ✓ Suggestion for further research

### **Study in retrospect**

The various aspects in the different stage of the present investigations like the Title, Variables, Objectives, Hypotheses, Methodology used are viewed retrospectively.

### **Restatement of the problem**

The present study is intended to find out the influence of two independent variables Cognitive Dissonance and Self Compassion on Dependent variable Academic Procrastination among higher secondary school students. Hence the

present study is restated as “INFLUENCE OF COGNITIVE DISSONANCE AND SELF COMPASSION ON ACADEMIC PROCRASTINATION AMONG HIGHER SECONDARY SCHOOL STUDENTS OF KERALA”

The independent variables and dependent variable selected for the study are the following.

**Independent variables**

1. Cognitive Dissonance
2. Self Compassion

**Dependent Variable**

Academic Procrastination

**Objectives of the Study**

Objectives of the present study are

1. To find out the extent of Cognitive Dissonance, Self Compassion (total score and component wise) and Academic Procrastination among higher secondary school students of Kerala
2. To find out whether there exists any significant difference in Cognitive Dissonance, Self Compassion (total score and component wise) and Academic Procrastination among higher secondary school students based on relevant sub groups viz. gender, locale, type of management and stream of their study.

3. To find out the main effects of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students for the total sample and relevant sub groups.
4. To find out the first order interaction effects of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students for the total sample and relevant sub groups.
5. To develop regression equation to predict Academic Procrastination from Cognitive Dissonance and Self Compassion.
6. To develop regression equation to predict Academic Procrastination from Self Kindness, Common Humanity and Mindfulness.

### **Hypotheses of the Study**

The present study is done to test the following hypotheses

1. There exist significant gender difference in the mean scores of Cognitive Dissonance, Self Compassion(total score and component wise) and Academic Procrastination among higher secondary school students.
2. There exist significant locale difference in the mean scores of Cognitive Dissonance, Self Compassion(total score and component wise) and Academic Procrastination among higher secondary school students.
3. There exist significant management difference in the mean scores of Cognitive Dissonance, Self Compassion(total score and component wise) and Academic Procrastination among higher secondary school students.
4. There exist significant difference in the mean scores of Cognitive Dissonance, Self Compassion(total score and component wise) and

Academic Procrastination among higher secondary school students based on stream of study.

5. The main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for total sample.
6. The main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for boys.
7. The main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for girls.
8. The main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for rural students.
9. The main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for urban students.
10. The main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for government students.
11. The main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for aided students.

12. The main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for HSE students.
13. The main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for VHSE students
14. The first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for total sample.
15. The first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for boys.
16. The first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for girls.
17. The first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for rural students.
18. The first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for urban students.
19. The first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for government students.

20. The first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for aided students.
21. The first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for HSE students.
22. The first order interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students is significant for VHSE students
23. There is significant individual and combined contribution of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students of Kerala for total sample.
24. There is significant individual and combined contribution of Self Kindness, Common Humanity and Mindfulness on Academic Procrastination among higher secondary school students of Kerala for total sample.

### **Tools used for the study**

Three tools were used for the present study

#### **Cognitive Dissonance Scale (Koya, H M. P & Shimimol,P.S2015)**

The tool consisted of 58 items from two sections. Section A consists of 29 items based on the academic activities and section B consists of 29 items contradicting the section A's items or supporting items. Initially, the investigators prepared 64 items and it was standardized by the investigators.

**Self Compassion Scale (Koya, H M.P & Shimimol, P.S 2015)**

This instrument consists of 47 items from three major components of Self Compassion viz, Self kindness, common humanity and Mindfulness. Initially the investigators prepared 55 items for the scale. The tool was standardized by the investigators.

**Academic Procrastination Scale (Koya, H. M. P & Shimimol, P.S 2015)**

The scale was consists of 55 items from 8 major components of Academic Procrastination viz, Evaluation anxiety, Perfectionism, Poor time management, dependency and help seeking, lack of self confidence, laziness , lack of assertion and Peer influence. The draft scale consists of 65 items. The tool was standardized by the investigators.

**Sample**

The present study is conducted on a representative sample of 1001 higher secondary school students selected from various districts of Kerala. Due weightages were given to the relevant subgroups of the population such as gender, locale, type of management and course of study. stratified random sampling technique was used for the selection of the sample.

**Statistical techniques used for the study**

The present study is quantitative one and the investigators used both descriptive and inferential statistics for the analysis.



### **Basic descriptive Statistics**

Mean, median , mode, standard deviation, skewness and kurtosis of each variable for total sample and relevant subsamples were calculated as preliminary analysis.

### **Inferential statistics**

The major statistical analysis used for the present study can be summarized as follows

### **Mean Difference Analysis**

Test of significance of difference between two large independent sample were calculated to compare the mean scores of all the independent variables and dependent variable based on gender, locale, type of management and course of study.

### **3x3 ANOVA**

Two way ANOVA with 3x3 factorial design was used as the major statistical technique to identify the influence of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students of Kerala. Each of the two independent variables were categorized into two levels and the main effect of each independent variable on dependent variable were calculated along with their first order interaction effect. Scheffe's post hoc comparison was also calculated for the significant F values to identifying differences among means.

### **Multiple Regression Analysis**

To predict the individual and joint contribution of independent variables on the dependent variables, multiple regression analysis was used. Multiple regression was done using enter method in which all independent variables were entered simultaneously. A regression equation was also developed to predict the dependent variable from the select independent variables.

### **Major Findings of the study**

The findings of the study is summarized as the findings of the mean difference analysis of the independent and dependent variables based on gender, locale, type of management and course of study, the main effects of two independent variables Cognitive Dissonance and Self Compassion on dependent variable Academic Procrastination, the first order interaction effects of two independent variable on dependent variable and the individual and joint contributions of independent variable on dependent variable.

### **Mean difference analysis**

The mean difference analysis was done to know whether there exists any significant difference between male and female, rural and urban, Govt. and Aided, HSE and VHSE higher secondary school students in their Cognitive Dissonance, Self Compassion (Component wise) and Academic Procrastination.

Difference is significant				Difference is not significant				
Variable	Group compared	Mean	t-value	Variable	Group Compared	Mean	t-value	
Cognitive Dissonance	Govt.	78.58	<b>4.86</b>	Cognitive Dissonance	Boys	77.48	<b>1.75</b>	
	Aided	77.08			Girls	78.03		
	HSE	77.33			Rural	77.78		
	VHSE	78.84			Urban	77.80		
Self Compassion	Boys	158.29	<b>3.58</b>	Self Compassion	Rural	156.09	<b>0.68</b>	
	Girls	153.72			Urban	155.18		
	Govt.	152.31			HSE	156.32		
	Aided	158.82			VHSE	154.46		
Academic Procrastination	Govt.	184.88	<b>5.19</b>	Academic Procrastination	Boys	181.40	<b>1.46</b>	
	Aided	Girls			182.49	Girls		182.49
		Rural			182.17	Rural		182.17
		Urban			181.71	Urban		181.71
		179.44	<b>3.13</b>			181.97		
						182.07	<b>.05</b>	

Difference is significant				Difference is not significant			
Component	Group compared	Mean	t-value	Component	Group Compared	Mean	t-value
Self Kindness	Male	58.33	<b>3.44</b>	Self Kindness	Rural	56.99	<b>0.34</b>
	Female	56.07			Urban	57.23	
	Govt.	55.99			HSE	57.22	
	Aided	58.04			VHSE	56.75	
Common Humanity	Male	36.24	<b>3.15</b>	Common Humanity	Rural	35.64	<b>0.68</b>
	Female	34.88			Urban	35.22	
	Govt.	34.31			Male	63.73	
	Aided	36.53			Female	62.86	
Mindfulness	HSE	35.79	<b>4.78</b>	Mindfulness	Rural	63.47	<b>1.62</b>
	VHSE	34.78			Urban	62.85	
	Govt.	62.12					
	Aided	64.25					

**Gender Difference**

The mean difference analysis based on gender of higher secondary school students were done for Cognitive Dissonance, Self Compassion (total score and components) and Academic Procrastination and the findings are summarized as given below:

Variables	Mean scores		t value	Level of significance
	Male	Female		
Self Compassion	158.29	153.72	3.58	.01
Self Kindness	58.33	56.07	3.44	.01
Common Humanity	36.24	34.88	2.87	.01

There is significant difference in the Self Compassion ( $t=1.75$  ,  $p<.01$ ), Self kindness ( $t=3.44, p<.01$ ) and Common Humanity ( $t=2.87, p<.01$ ) of male and female higher secondary school students. Male students have higher Self Compassion, Self Kindness , Common Humanity than that of female students. There is no significant difference in the Cognitive Dissonance and Academic Procrastination of male and female higher secondary school students.

**Locale difference**

The mean difference analysis based on locale of higher secondary school students were done for Cognitive Dissonance, Self Compassion (total score and component wise) and Academic Procrastination and the findings are summarized as given below:

There is no significant difference in the Cognitive Dissonance, Self Compassion (total score and component wise) and Academic Procrastination of rural and urban higher secondary school students.

**Management Difference**

The mean difference analysis based on type of management of higher secondary school students were done for Cognitive Dissonance, Self Compassion (total score and component wise) and Academic Procrastination and the findings are summarized as given below:

Variables	Mean scores		t value	Level of significance
	Govt.	Aided		
Cognitive Dissonance	78.58	77.08	4.86	.01
Self Compassion	152.31	158.82	5.16	.01
Self Kindness	55.99	58.04	3.15	.01
Common Humanity	34.31	36.53	4.78	.01
Mindfulness	62.12	64.25	4.06	.01
Academic Procrastination	184.88	179.44	3.11	.01

There is significant difference in the Cognitive Dissonance of Govt. and Aided higher secondary school students. ( $t=4.86$  ,  $p<.01$ ). Govt. school students have high Cognitive Dissonance. There is significant difference in the Self Compassion ( $t=5.16$ ,  $p<.01$ ), Self Kindness ( $t=3.15$ ,  $p<.01$ ), Common Humanity ( $t=4.78$ ,  $p<.01$ ), mindfulness ( $t=4.06$ ,  $p<.01$ ) between Govt. and aided higher secondary school students. Aided school students have high Self Compassion, Self Kindness, Common Humanity and Mindfulness than Govt. school students. There

is significant difference in the Academic Procrastination between Govt. and aided higher secondary school students( $t=3.11$ ,  $p<.01$ ). Govt. school students have high Academic Procrastination than Aided school students.

**Difference based on stream of study**

Difference between HSE and VHSE

The mean difference analysis based on course of study HSE and VHSE of higher secondary school students were done for Cognitive Dissonance, Self Compassion and Academic Procrastination and the findings are summarized as given below:

Variables	Mean scores		t value	Level of significance
	HSE	VHSE		
Cognitive Dissonance	77.33	78.84	4.55	.01
Common Humanity	35.79	34.78	2.22	.05

There is significant difference in the Cognitive Dissonance of HSE and VHSE higher secondary school students. ( $t=4.55$  ,  $p<.01$ ). VHSE students have high Cognitive Dissonance than HSE students. There is significant difference in the Common Humanity ( $t=2.22$ , $p<.05$ ) between HSE and VHSE students. HSE students have high common humanity than VHSE students. There is no significant difference in the Self Compassion ( $t=1.46$ ,  $p>.05$ ), Self Kindness ( $t=0.68$ ,  $p>.05$ ), Mindfulness ( $t=0.52$ , $p>.05$ ) between HSE and VHSE higher secondary school students. There is no significant difference in the Academic Procrastination between HSE and VHSE higher secondary school students( $t=.05$ ,  $p>.05$ ).

**Main effect of independent variables**

Main effects of two independent variables Cognitive Dissonance and Self Compassion on the dependent variable Academic Procrastination is estimated and the summary of the findings are presented.

Significant					Not Significant					
Variable	Nature of Sample	F value	Sig value	Level of sig.	Variable	Nature of Sample	F value	Sig. Value	Level of sig.	
Cognitive Dissonance	Total sample	16.08	.00	.01	Cognitive Dissonance	Girls	2.41	.09	NS	
	Boys	12.52	.00	.01						
	Rural	4.70	.00	.01						
	Urban	10.65	.00	.01						
	Govt.	10.73	.00	.01						
	Aided	8.12	.00	.01			VHSE	0.66	.51	NS
	HSE	17.88	.00	.01						
Significant										
Nature of Sample		F value	Sig. Value		Level of significance					
Total sample		23.12	.00		.01					
Boys		9.19	.00		.01					
Girls		23.13	.00		.01					
Rural		15.92	.00		.01					
Urban		8.86	.00		.01					
Govt.		7.95	.00		.01					
Aided		16.98	.00		.01					
HSE		17.35	.00		.01					
VHSE		8.33	.00		.01					

**Main effects of independent variables for total sample**

The main effects of independent variables Cognitive Dissonance and Self Compassion on Academic Procrastination is estimated for total sample and presented as given below:

Variables	F value	Level of significance
Cognitive Dissonance	16.08	.01
Self Compassion	23.12	.01

The details of Scheffe’s test of post-hoc comparison is given below

Variable	Groups Compared	Means		F	F <sup>1</sup>		Level of sig.
		M <sub>1</sub>	M <sub>2</sub>		.05	.01	
Cognitive Dissonance	HCD-ACD	194.55	181.52	28.51	5.9	9.2	.01
	HCD-LCD	194.55	169.04	53.58	5.9	9.2	.01
	ACD-LCD	181.52	169.04	19.98	5.9	9.2	.01
Self Compassion	HSC-ASC	162.27	183.11	79.74	5.9	9.2	.01
	HSC-LSC	162.27	197.93	130.4	5.9	9.2	.01
	ASC-LSC	183.11	197.93	36.24	5.9	9.2	.01

HCD- High Cognitive Dissonance

ACD- Average Cognitive Dissonance

LCD- Low Cognitive Dissonance

HSC- High Self Compassion

ASC- Average Self Compassion

LSC- Low Self Compassion



Main effect of Cognitive Dissonance on Academic Procrastination is significant ( $F=16.08, p<.01$ ).

- There is significant difference in the Academic Procrastination level of students with high and average level of Cognitive Dissonance. ( $F=28.51, p<.01$ )
- There is significant difference in the Academic Procrastination level of students with high and low level of Cognitive Dissonance ( $F=53.58, p<.01$ )
- There is significant difference in the Academic Procrastination level of students with average and low level of Cognitive Dissonance ( $F=19.98, p<.01$ )

Students of high Cognitive Dissonance group are found to have significantly higher Academic Procrastination than those of average and low Cognitive Dissonance group.

Main effect of Self Compassion on Academic Procrastination is significant ( $F=23.12, p<.01$ )

- There is significant difference in the Academic Procrastination level of students with high and average level of Self Compassion.
- There is significant difference in the Academic Procrastination level of students with high and low level of Self Compassion.
- There is significant difference in the Academic Procrastination level of students with average and low level of Self Compassion

Students of low Self Compassion group are found to have significantly higher Academic Procrastination than those of average and high Self Compassion group.

**Main effects of independent variables for Male**

The main effects of independent variables Cognitive Dissonance and Self Compassion on Academic Procrastination is estimated for male sample and presented as given below:

Variables	F value	Level of significance
Cognitive Dissonance	12.52	.01
Self Compassion	9.19	.01

The details of Scheffe’s test of post-hoc comparison is given below

Variable	Groups Compared	Means		F	F <sup>1</sup>		Level of sig.
		M <sub>1</sub>	M <sub>2</sub>		.05	.01	
Cognitive Dissonance	HCD-ACD	193.06	181.39	9.03	5.9	9.2	.05
	HCD-LCD	193.06	170	20.61	5.9	9.2	.01
	ACD-LCD	181.39	170	8.7	5.9	9.2	.05
Self Compassion	HSC-ASC	164.66	183.52	31.24	5.9	9.2	.01
	HSC-LSC	164.66	193.69	35.28	5.9	9.2	.01
	ASC-LSC	183.52	193.69	6.15	5.9	9.2	.05

HCD- High Cognitive Dissonance

ACD- Average Cognitive Dissonance

LCD- Low Cognitive Dissonance

HSC- High Self Compassion

ASC- Average Self Compassion

LSC- Low Self Compassion

Main effect of Cognitive Dissonance on Academic Procrastination is significant ( $F=12.52, p<.01$ ).

- there is significant difference in the Academic Procrastination level of male students with high and average level of Cognitive Dissonance ( $F=9.03, p<.05$ )
- there is significant difference in the Academic Procrastination level of male students with high and low level of Cognitive Dissonance ( $F=20.61, p<.01$ )
- there is significant difference in the Academic Procrastination level of male students with average and low level of Cognitive Dissonance ( $F=8.70, p<.05$ )

Students of high Cognitive Dissonance group are found to have significantly higher Academic Procrastination than those of average and low Cognitive Dissonance group.

Main effect of Self Compassion on Academic Procrastination is significant ( $F=9.19, p<.01$ )

- there is significant difference in the Academic Procrastination level of male students with high and average level of Self Compassion. ( $F=31.24, p<.01$ )
- there is significant difference in the Academic Procrastination level of male students with high and low level of Self Compassion ( $F=35.28, p<.01$ )
- there is significant difference in the Academic Procrastination level of male students with average and low level of Self Compassion ( $F=6.15, p<.01$ )

Students of low Self Compassion group are found to have significantly higher Academic Procrastination than those of average and high Self Compassion group.

**Main effects of independent variables for female**

The main effects of independent variables Cognitive Dissonance and Self Compassion on Academic Procrastination is estimated for female sample and presented as given below:

Variables	F value	Level of significance
Cognitive Dissonance	2.41	NS
Self Compassion	23.13	.01

The details of Scheffe’s test of post-hoc comparison is given below

Variable	Groups Compared	Means		F	F <sup>1</sup>		Level of sig.
		M <sub>1</sub>	M <sub>2</sub>		.05	.01	
Self Compassion	HSC-ASC	159.53	182.78	52.41	5.9	9.2	.01
	HSC-LSC	159.53	200.57	101.6	5.9	9.2	.01
	ASC-LSC	182.78	200.57	34.92	5.9	9.2	.01

HSC- High Self Compassion

ASC- Average Self Compassion

LSC- Low Self Compassion

Main effect of Cognitive Dissonance on Academic Procrastination is not significant (F=2.41, p>.05).

Main effect of Self Compassion on Academic Procrastination is significant (F=23.13, p<.01)

- there is significant difference in the Academic Procrastination level of female students with high and average level of Self Compassion (F=52.41,p<.01)
- there is significant difference in the Academic Procrastination level of female students with high and low level of Self Compassion(F=101.60,p<.01)
- there is significant difference in the Academic Procrastination level of female students with average and low level of Self Compassion(F= 34.92,p<.01)

Students of low Self Compassion group are found to have significantly higher Academic Procrastination than those of average and high Self Compassion group.

**Main effects of independent variables for rural.**

The main effects of independent variables Cognitive Dissonance and Self Compassion on Academic Procrastination is estimated for rural sample and presented as given below:

Variables	F value	Level of significance
Cognitive Dissonance	4.70	.01
Self Compassion	15.92	.01

The details of Scheffe’s test of post-hoc comparison is given below

Variable	Groups Compared	Means		F	F <sup>1</sup>		Level of sig.
		M <sub>1</sub>	M <sub>2</sub>		.05	.01	
Cognitive Dissonance	HCD-ACD	191.63	181.80	10.62	5.9	9.2	.01
	HCD-LCD	191.63	173.46	17.80	5.9	9.2	.01
	ACD-LCD	181.80	173.46	6	5.9	9.2	.05
Self Compassion	HSC-ASC	165.44	182.22	32.71	5.9	9.2	.01
	HSC-LSC	165.44	200.07	76.73	5.9	9.2	.01
	ASC-LSC	182.22	200.07	34.45	5.9	9.2	.01

HCD- High Cognitive Dissonance

ACD- Average Cognitive Dissonance

LCD- Low Cognitive Dissonance

HSC- High Self Compassion

ASC- Average Self Compassion

LSC- Low Self Compassion

Main effect of Cognitive Dissonance on Academic Procrastination is significant (F=4.70, p<.01).

- there is significant difference in the Academic Procrastination level of rural school students with high and average level of Cognitive Dissonance (F=10.62,p<.01)

- there is significant difference in the Academic Procrastination level of rural school students with high and low level of Cognitive Dissonance( $F=17.80, p<.01$ )
- there is significant difference in the Academic Procrastination level of rural school students with average and low level of Cognitive Dissonance( $F=6, p<.05$ )

Students of high Cognitive Dissonance group are found to have significantly higher Academic Procrastination than those of average and low Cognitive Dissonance group

Main effect of Self Compassion on Academic Procrastination is significant ( $F=15.92, p<.01$ )

- there is significant difference in the Academic Procrastination level of rural students with high and average level of Self Compassion( $F=32.71, p<.01$ )
- there is significant difference in the Academic Procrastination level of rural school students with high and low level of Self Compassion( $F=76.73, p<.01$ )
- there is significant difference in the Academic Procrastination level of rural school students with average and low level of Self Compassion( $F=34.45, p<.01$ )

Students of low Self Compassion group are found to have significantly higher Academic Procrastination than those of average and high Self Compassion group.

**Main effects of independent variables for Urban.**

The main effects of independent variables Cognitive Dissonance and Self Compassion on Academic Procrastination is estimated for Urban sample and presented as given below:

Variables	F value	Level of significance
Cognitive Dissonance	10.65	.01
Self Compassion	8.86	.01

The details of Scheffe’s test of post-hoc comparison is given below

Variable	Groups Compared	Means		F	F <sup>1</sup>		Level of sig.
		M <sub>1</sub>	M <sub>2</sub>		.05	.01	
Cognitive Dissonance	HCD-ACD	197.97	180.99	16.64	5.9	9.2	.01
	HCD-LCD	197.97	163.44	34.57	5.9	9.2	.01
	ACD-LCD	180.99	163.44	13.24	5.9	9.2	.05
Self Compassion	HSC-ASC	158.93	184.93	43.69	5.9	9.2	.01
	HSC-LSC	158.93	195.45	50.83	5.9	9.2	.01
	ASC-LSC	184.93	195.45	6.20	5.9	9.2	.05

HCD- High Cognitive Dissonance

ACD- Average Cognitive Dissonance

LCD- Low Cognitive Dissonance

HSC- High Self Compassion

ASC- Average Self Compassion

LSC- Low Self Compassion



Main effect of Cognitive Dissonance on Academic Procrastination is significant ( $F=10.65, p<.01$ ).

- there is significant difference in the Academic Procrastination level of urban school students with high and average level of Cognitive Dissonance ( $F=16.64, p<.01$ )
- there is significant difference in the Academic Procrastination level of urban school students with high and low level of Cognitive Dissonance ( $F=34.57, p<.01$ )
- there is significant difference in the Academic Procrastination level of urban school students with average and low level of Cognitive Dissonance ( $F=13.24, p<.01$ )

Students of high Cognitive Dissonance group are found to have significantly higher Academic Procrastination than those of average and low Cognitive Dissonance group

Main effect of Self Compassion on Academic Procrastination is significant ( $F=8.86, p<.01$ )

- there is significant difference in the Academic Procrastination level of urban school students with high and average level of Self Compassion ( $F=43.69, p<.01$ )
- there is significant difference in the Academic Procrastination level of urban school students with high and low level of Self Compassion ( $F=50.83, p<.01$ )

- there is significant difference in the Academic Procrastination level of urban school students with average and low level of Self Compassion( $F=6.2, p<0.5$ )

Students of low Self Compassion group are found to have significantly higher Academic Procrastination than those of average and high Self Compassion group.

**Main effects of independent variables for govt.**

The main effects of independent variables Cognitive Dissonance and Self Compassion on Academic Procrastination is estimated for govt sample and presented as given below:

Variables	F value	Level of significance
Cognitive Dissonance	10.73	.01
Self Compassion	7.95	.01

The details of Scheffe’s test of post-hoc comparison is given below

Variable	Groups Compared	Means		F	F <sup>1</sup>		Level of sig.
		M <sub>1</sub>	M <sub>2</sub>		.05	.01	
Cognitive Dissonance	HCD-ACD	194.85	184.24	11.28	5.9	9.2	.01
	HCD-LCD	194.85	169	24.01	5.9	9.2	.01
	ACD-LCD	184.24	169	10.95	5.9	9.2	.01
Self Compassion	HSC-ASC	169.09	185.75	28.30	5.9	9.2	.01
	HSC-LSC	165.09	194.43	36.48	5.9	9.2	.01
	ASC-LSC	185.75	194.43	6.40	5.9	9.2	.05

HCD- High Cognitive Dissonance

ACD- Average Cognitive Dissonance

LCD- Low Cognitive Dissonance

HSC- High Self Compassion

ASC- Average Self Compassion

LSC- Low Self Compassion

Main effect of Cognitive Dissonance on Academic Procrastination is significant ( $F=10.73, p<.01$ ).

- there is significant difference in the Academic Procrastination level of govt school students with high and average level of Cognitive Dissonance ( $F=11.28, p<.01$ )
- there is significant difference in the Academic Procrastination level of govt school students with high and low level of Cognitive Dissonance ( $F=24.01, p<.01$ )
- there is significant difference in the Academic Procrastination level of govt school students with average and low level of Cognitive Dissonance ( $F=10.95, p<.01$ )

Students of high Cognitive Dissonance group are found to have significantly higher Academic Procrastination than those of average and low Cognitive Dissonance group

Main effect of Self Compassion on Academic Procrastination is significant ( $F=7.95, p<.01$ )

- there is significant difference in the Academic Procrastination level of male students with high and average level of Self Compassion( $F=28.30, p<.01$ )
- there is significant difference in the Academic Procrastination level of govt school students with high and low level of Self Compassion( $F=36.48, p<.01$ )
- there is significant difference in the Academic Procrastination level of govt school students with average and low level of Self Compassion( $F=6.40, p<.05$ )

Students of low Self Compassion group are found to have significantly higher Academic Procrastination than those of average and high Self Compassion group

**Main effects of independent variables for Aided.**

The main effects of independent variables Cognitive Dissonance and Self Compassion on Academic Procrastination is estimated for Aided sample and presented as given below:

Variables	F value	Level of significance
Cognitive Dissonance	8.12	.01
Self Compassion	16.98	.01

The details of Scheffe’s test of post-hoc comparison is given below

Variable	Groups Compared	Means		F	F <sup>1</sup>		Level of sig.
		M <sub>1</sub>	M <sub>2</sub>		.05	.01	
Cognitive Dissonance	HCD-ACD	194.13	179.12	15.68	5.9	9.2	.01
	HCD-LCD	194.13	169.06	26.52	5.9	9.2	.01
	ACD-LCD	179.12	169.06	8.06	5.9	9.2	.01
Self Compassion	HSC-ASC	160.97	180.48	43.42	5.9	9.2	.01
	HSC-LSC	160.97	201.15	93.12	5.9	9.2	.01
	ASC-LSC	180.48	201.15	35.04	5.9	9.2	.01

HCD- High Cognitive Dissonance

ACD- Average Cognitive Dissonance

LCD- Low Cognitive Dissonance

HSC- High Self Compassion

ASC- Average Self Compassion

LSC- Low Self Compassion

Main effect of Cognitive Dissonance on Academic Procrastination is significant (F=8.12, p<.01).

- there is significant difference in the Academic Procrastination level of aided school students with high and average level of Cognitive Dissonance (F=15.68,p<.01)
- there is significant difference in the Academic Procrastination level of aided school students with high and low level of Cognitive Dissonance(F=26.52,p<.01)

- there is significant difference in the Academic Procrastination level of aided school students with average and low level of Cognitive Dissonance (F=8.06,p<.01)

Students of high Cognitive Dissonance group are found to have significantly higher Academic Procrastination than those of average and low Cognitive Dissonance group

Main effect of Self Compassion on Academic Procrastination is significant (F=16.98, p<.01)

- there is significant difference in the Academic Procrastination level of aided students with high and average level of Self Compassion(F=43.42,p<.01)
- there is significant difference in the Academic Procrastination level of aided school students with high and low level of Self Compassion(F=93.12,p<.01)
- there is significant difference in the Academic Procrastination level of aided school students with average and low level of Self Compassion (F=35.04,p<.01)

Students of low Self Compassion group are found to have significantly higher Academic Procrastination than those of average and high Self Compassion group.

**Main effects of independent variables for HSE students.**

The main effects of independent variables Cognitive Dissonance and Self Compassion on Academic Procrastination is estimated for HSE students sample and presented as given below:

Variables	F value	Level of significance
Cognitive Dissonance	17.88	.01
Self Compassion	17.35	.01

The details of Scheffe’s test of post-hoc comparison is given below

Variable	Groups Compared	Means		F	F <sup>1</sup>		Level of sig.
		M <sub>1</sub>	M <sub>2</sub>		.05	.01	
Cognitive Dissonance	HCD-ACD	198.92	181.53	30.25	5.9	9.2	.01
	HCD-LCD	198.92	167.53	55.80	5.9	9.2	.01
	ACD-LCD	181.53	167.53	19	5.9	9.2	.01
Self Compassion	HSC-ASC	162.49	183.06	54.61	5.9	9.2	.01
	HSC-LSC	162.49	198.84	96.43	5.9	9.2	.01
	ASC-LSC	183.06	198.84	28.51	5.9	9.2	.01

HCD- High Cognitive Dissonance

ACD- Average Cognitive Dissonance

LCD- Low Cognitive Dissonance

HSC- High Self Compassion

ASC- Average Self Compassion

LSC- Low Self Compassion

Main effect of Cognitive Dissonance on Academic Procrastination is significant ( $F=17.88, p<.01$ ).

- there is significant difference in the Academic Procrastination level of HSE students with high and average level of Cognitive Dissonance ( $F=30.25, p<.01$ )
- there is significant difference in the Academic Procrastination level of HSE students with high and low level of Cognitive Dissonance ( $F=55.80, p<.01$ )
- there is significant difference in the Academic Procrastination level of HSE students with average and low level of Cognitive Dissonance ( $F=19, p<.01$ )

Students of high Cognitive Dissonance group are found to have significantly higher Academic Procrastination than those of average and low Cognitive Dissonance group.

Main effect of Self Compassion on Academic Procrastination is significant ( $F=17.35, p<.01$ )

- there is significant difference in the Academic Procrastination level of HSE students with high and average level of Self Compassion ( $F=54.61, p<.01$ )
- there is significant difference in the Academic Procrastination level of HSE students with high and low level of Self Compassion ( $F=96.43, p<.01$ )
- there is significant difference in the Academic Procrastination level of HSE students with average and low level of Self Compassion ( $F=28.51, p<.01$ )



Students of low Self Compassion group are found to have significantly higher Academic Procrastination than those of average and high Self Compassion group.

**Main effects of independent variables for VHSE students.**

The main effects of independent variables Cognitive Dissonance and Self Compassion on Academic Procrastination is estimated for VHSE students sample and presented as given below:

Variables	F value	Level of significance
Cognitive Dissonance	0.66	NS
Self Compassion	8.88	.01

The details of Scheffe’s test of post-hoc comparison is given below

Variable	Groups Compared	Means		F	F <sup>1</sup>		Level of sig.
		M <sub>1</sub>	M <sub>2</sub>		.05	.01	
Self Compassion	HSC-ASC	161.58	183.21	24.74	5.9	9.2	.01
	HSC-LSC	161.58	195.16	32.85	5.9	9.2	.01
	ASC-LSC	183.21	195.16	7.12	5.9	9.2	.05

HSC- High Self Compassion

ASC- Average Self Compassion

LSC- Low Self Compassion

Main effect of Cognitive Dissonance on Academic Procrastination is significant (F=0.66, p>.05).

Main effect of Self Compassion on Academic Procrastination is significant (F=8.88, p<.01)

- there is significant difference in the Academic Procrastination level of VHSE students with high and average level of Self Compassion( $F=24.7, p<.01$ )
- there is significant difference in the Academic Procrastination level of VHSE students with high and low level of Self Compassion( $F=32.84, p<.01$ )
- there is significant difference in the Academic Procrastination level of VHSE students with average and low level of Self Compassion( $F=7.12, p<.05$ )

Students of low Self Compassion group are found to have significantly higher Academic Procrastination than those of average and high Self Compassion group.

**Interaction effect of Independent Variables**

Interaction effect of independent variables Cognitive Dissonance and Self Compassion on the dependent variable Academic Procrastination were estimated for total sample and sub samples based on Gender, locale, type of management and Stream of study. Summary of first order interaction effects are presented:

Significant				Not Significant			
Nature of Sample	F value	Sig. value	Level of sig.	Nature of Sample	F value	Sig value	Level of Sig.
Boys	3.67	.00	.01	Total sample	2.37	.05	NS
Girls	4.31	.00	.01	Rural	2.32	.05	NS
				Urban	0.62	0.64	NS
Govt	3.38	.01	.05	Aided	1.73	0.14	NS
				HSE	1.87	0.11	NS
				VHSE	0.6	0.61	NS

**Interaction Effects of Independent Variables for total sample**

The interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination is not significant ( $F= 2.37, p>.05$ )

**Interaction Effects of Independent Variables for Male sample**

The interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination for male sample is significant ( $F= 3.67, p<.01$ )

**Interaction Effects of Independent Variables for Female sample**

The interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination for female sample is significant ( $F= 4.31, p<.01$ )

**Interaction Effects of Independent Variables for Rural school students**

The interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination for rural school students is not significant ( $F= 2.32, p>.05$ )

**Interaction Effects of Independent Variables for urban school students**

The interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination for urban school students is not significant ( $F= 0.62, p>.05$ )

**Interaction Effects of Independent Variables for Govt. sample**

The interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination for Govt. students is significant ( $F= 3.38, p<.05$ )

### **Interaction Effects of Independent Variables for aided school students**

The interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination for Aided school students is not significant ( $F=1.73, p>.05$ )

### **Interaction Effects of Independent Variables for HSE students**

The interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination for Science students is not significant ( $F=1.03, p>.05$ )

### **Interaction Effects of Independent Variables for VHSE students**

The interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination for VHSE students is not significant ( $F=0.55, p>.05$ )

### **Individual and combined contribution of Cognitive Dissonance and Self Compassion on Academic Procrastination**

Cognitive Dissonance and Self Compassion jointly contribute significantly in predicting Academic Procrastination among higher secondary school students. Multiple correlation coefficient =0.47 ,  $p<.01$

### **Individual and combined contribution of Self Kindness, Common Humanity and Mindfulness on Academic Procrastination.**

Self Kindness, Common Humanity and Mindfulness jointly contribute significantly in predicting Academic Procrastination among higher secondary school students. Multiple correlation coefficient =0.43 ,  $p<.01$

## **Conclusions**

Male and female students are significantly differ in Self Compassion, but do not differ in Cognitive Dissonance and Academic Procrastination. High mean scores associated with males suggest the superiority of males over females in high Self Compassion. The finding supports that that women are less Self Compassionate than men is consistent with past findings that females tend to be more critical of themselves and to use more negative self-talk than males do (DeVore, 2013; Leadbeater et al., 1999). Women have also been found to be more critical of themselves and to use more negative self-talk than males (DeVore, 2013; Leadbeater, Kuperminc, Blatt, & Hertzog, 1999).

Rural and Urban students does not differ significantly in Cognitive Dissonance, Self Compassion and Academic Procrastination.

Govt and aided students significantly differ in Cognitive Dissonance , Self Compassion and Academic Procrastination. High mean scores associated with Govt. sample suggest the superiority of Govt. students over Aided students in Cognitive Dissonance. High mean scores associated with Aided students suggest the superiority of Aided over Govt students in high Self Compassion. High mean scores associated with Govt. students suggest the superiority of Govt. students over Aided students in high Academic Procrastination.

HSE and VHSE students are significantly differ in Cognitive Dissonance, Self Compassion and Academic Procrastination. Mean value shows that VHSE students have higher Cognitive Dissonance than HSE students. Mean value shows

that HSE students have higher Self Compassion than VHSE students. Mean value shows that VHSE students have higher Academic Procrastination than HSE students.

Main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination is significant for total sample. High mean score of Academic Procrastination indicated higher level of Cognitive Dissonance. It may therefore, be concluded that students of high Cognitive Dissonance group are found to have significantly higher Academic Procrastination than those of average and low Cognitive Dissonance group. Average Cognitive Dissonance group is significantly higher in Academic Procrastination than those of low Cognitive Dissonance group. High mean score of Academic Procrastination indicated low level of Self Compassion and low mean score of Academic Procrastination indicated high level of Self Compassion. It may therefore, be concluded that students of low Self Compassion group are found to have significantly higher Academic Procrastination than those of average and high Self Compassion group. Average Self Compassion group is significantly higher in Academic Procrastination than those of high Self Compassion group.

Main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination for boys is significant. High mean score of Academic Procrastination indicated higher level of Cognitive Dissonance. It may therefore, be concluded that students of high Cognitive Dissonance group are found to have significantly higher Academic Procrastination than those of average and low Cognitive Dissonance group. Average Cognitive Dissonance group is significantly higher in Academic

Procrastination than those of low Cognitive Dissonance group. High mean score of Academic Procrastination indicated low level of Self Compassion and low mean score of Academic Procrastination indicated high level of Self Compassion. It may therefore, be concluded that students of low Self Compassion group are found to have significantly higher Academic Procrastination than those of average and high Self Compassion group. Average Self Compassion group is significantly higher in Academic Procrastination than those of high Self Compassion group.

In the case of girls, main effect of Cognitive Dissonance on Academic Procrastination is not significant. Main effect of Self Compassion on Academic Procrastination is significant. High mean score of Academic Procrastination indicated low level of Self Compassion and low mean score of Academic Procrastination indicated high level of Self Compassion. It may therefore, be concluded that female students of low Self Compassion group are found to have significantly higher Academic Procrastination than those of average and high Self Compassion group. Average Self Compassion group is significantly higher in Academic Procrastination than those of high Self Compassion group.

For rural students main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination is significant. High mean score of Academic Procrastination indicated higher level of Cognitive Dissonance. It may therefore, be concluded that students of high Cognitive Dissonance group are found to have significantly higher Academic Procrastination than those of average and low Cognitive Dissonance group. Average Cognitive Dissonance group is significantly higher in Academic Procrastination than those of low Cognitive Dissonance group.

High mean score of Academic Procrastination indicated low level of Self Compassion and low mean score of Academic Procrastination indicated high level of Self Compassion. It may therefore, be concluded that students of low Self Compassion group are found to have significantly higher Academic Procrastination than those of average and high Self Compassion group. Average Self Compassion group is significantly higher in Academic Procrastination than those of high Self Compassion group.

For urban students main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination is significant. High mean score of Academic Procrastination indicated higher level of Cognitive Dissonance. It may therefore, be concluded that students of high Cognitive Dissonance group are found to have significantly higher Academic Procrastination than those of average and low Cognitive Dissonance group. Average Cognitive Dissonance group is significantly higher in Academic Procrastination than those of low Cognitive Dissonance group. High mean score of Academic Procrastination indicated low level of Self Compassion and low mean score of Academic Procrastination indicated high level of Self Compassion. It may therefore, be concluded that students of low Self Compassion group are found to have significantly higher Academic Procrastination than those of average and high Self Compassion group. Average Self Compassion group is significantly higher in Academic Procrastination than those of high Self Compassion group.

For govt students main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination is significant. High mean score of Academic



Procrastination indicated higher level of Cognitive Dissonance. It may therefore, be concluded that students of high Cognitive Dissonance group are found to have significantly higher Academic Procrastination than those of average and low Cognitive Dissonance group. Average Cognitive Dissonance group is significantly higher in Academic Procrastination than those of low Cognitive Dissonance group. High mean score of Academic Procrastination indicated low level of Self Compassion and low mean score of Academic Procrastination indicated high level of Self Compassion. It may therefore, be concluded that students of low Self Compassion group are found to have significantly higher Academic Procrastination than those of average and high Self Compassion group. Average Self Compassion group is significantly higher in Academic Procrastination than those of high Self Compassion group.

For aided students Main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination is significant. High mean score of Academic Procrastination indicated higher level of Cognitive Dissonance. It may therefore, be concluded that students of high Cognitive Dissonance group are found to have significantly higher Academic Procrastination than those of average and low Cognitive Dissonance group. Average Cognitive Dissonance group is significantly higher in Academic Procrastination than those of low Cognitive Dissonance group. High mean score of Academic Procrastination indicated low level of Self Compassion and low mean score of Academic Procrastination indicated high level of Self Compassion. It may therefore, be concluded that students of low Self Compassion group are found to have significantly higher Academic Procrastination

than those of average and high Self Compassion group. Average Self Compassion group is significantly higher in Academic Procrastination than those of high Self Compassion group.

For HSE students Main effect of Cognitive Dissonance and Self Compassion on Academic Procrastination is significant. High mean score of Academic Procrastination indicated higher level of Cognitive Dissonance. It may therefore, be concluded that students of high Cognitive Dissonance group are found to have significantly higher Academic Procrastination than those of average and low Cognitive Dissonance group. Average Cognitive Dissonance group is significantly higher in Academic Procrastination than those of low Cognitive Dissonance group. High mean score of Academic Procrastination indicated low level of Self Compassion and low mean score of Academic Procrastination indicated high level of Self Compassion. It may therefore, be concluded that students of low Self Compassion group are found to have significantly higher Academic Procrastination than those of average and high Self Compassion group. Average Self Compassion group is significantly higher in Academic Procrastination than those of high Self Compassion group.

For VHSE students, main effect of Cognitive Dissonance on Academic Procrastination is significant. Main effect of Self Compassion on Academic Procrastination is significant. High mean score of Academic Procrastination indicated low level of Self Compassion and low mean score of Academic Procrastination indicated high level of Self Compassion. It may therefore, be concluded that students of low Self Compassion group are found to have

significantly higher Academic Procrastination than those of average and high Self Compassion group. Average Self Compassion group is significantly higher in Academic Procrastination than those of high Self Compassion group.

For total sample, the interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination is not significant

The interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination for male sample is significant. The mean scores of high Cognitive Dissonance belonging to low Self Compassion category is higher than average and high Self Compassion groups. In the case of average Cognitive Dissonance, the mean score of low Self Compassion is higher than average and high Self Compassion category. The mean scores of low Cognitive Dissonance category belonging to average Self Compassion is higher than low and high Self Compassion groups. This is a clear evidence of the dependency of Academic Procrastination on the interaction between Cognitive Dissonance and Self Compassion for male sample.

The interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination for female sample is significant. The mean scores of high Self Compassion belonging to high Cognitive Dissonance category is higher than average and low Cognitive Dissonance groups. In the case of average Self Compassion, the mean score of high Cognitive Dissonance is higher than average and low Cognitive Dissonance category. The mean scores of low Self Compassion category belonging to low Cognitive Dissonance category is higher than average and high Cognitive Dissonance groups. Also in low Self Compassion category,

mean scores of Academic Procrastination are almost equal at high and average Cognitive Dissonance category. This is a clear evidence of the dependency of Academic Procrastination on the interaction between Cognitive Dissonance and Self Compassion for female sample.

The interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination for rural school students is not significant.

The interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination for urban school students is not significant.

The interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination for Govt. students is significant. The mean scores of high Cognitive Dissonance belonging to low Self Compassion category is higher than average and high Self Compassion groups. In the case of average Cognitive Dissonance, the mean score of low Self Compassion is higher than average and high Self Compassion category. The mean scores of low Cognitive Dissonance category belonging to average Self Compassion is higher than low and high Self Compassion groups. This is a clear evidence of the dependency of Academic Procrastination on the interaction between Cognitive Dissonance and Self Compassion for govt. school students.

The interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination for Aided school students is not significant

The interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination for HSE students is not significant.

The interaction effect of Cognitive Dissonance and Self Compassion on Academic Procrastination for VHSE students is not significant.

The individual contribution of Cognitive Dissonance and Self Compassion in predicting Academic Procrastination is significant. Self Compassion contributes higher than Cognitive Dissonance. Cognitive Dissonance comes second in the sequence in predicting Academic Procrastination.

The individual contribution of Self Kindness, Common Humanity and Mindfulness in predicting Academic Procrastination is significant. Self kindness contributes higher than common humanity and mindfulness. Mindfulness comes third in the sequence in predicting Academic Procrastination.

### **Suggestions for improving educational practices**

Based on the findings of the study investigator concluded that Cognitive Dissonance and Self Compassion have significant effect on Academic Procrastination among higher secondary school students. So the Cognitive Dissonance must be reduced and at the same time Self Compassion must be improved among students to reduce the habit of Academic Procrastination. Results of the study is promising to the application at different levels. The study is found relevant in many educational areas like policy making and curriculum development, methodology, evaluation, class room or home environment etc.

### **Curriculum**

The following implications are recommended the light of the present findings.

### **Reduce Cognitive Dissonance**

To reduce Cognitive Dissonance the following strategies are suggested.

*Selective exposure:* Content should be presented in such a way that should not produce conflict among students. Similarly curriculum may provide selective exposure to information. This may reduce Cognitive Dissonance. The opportunities of the course should be highlighted and the objectives of the course are to be given in advance.

*Consonance between theory and practice:* To reduce Cognitive Dissonance there should be consonance between theory and practical in all subjects. The practical experiments may support theoretical concepts and vice versa. This may provide opportunity for rational thinking and develop power of argumentation.

*Life skill:* To reduce Cognitive Dissonance contents and skills related with life skill may be added to curriculum. These experiences will certainly reduce Academic Procrastination. The life skill which is indented to reduce conflicts may given as an add on course to suitable programmes. It is a type of additional skill acquisition programme.

### **Foster Self Compassion**

The findings highlight the importance of Self Compassion and self kindness. This could be developed through various curricular and co-curricular programmes.

*Intervention programmes:* To promote Self Compassion Intervention programmes could be organized to train for mindfulness. The adolescent students

are directed by many emotional problems and lack of mindfulness. During vacation and holidays intervention program can be arranged successfully. Neff and Germer (2013) have developed the eight-week mindful Self Compassion (MSC) program, which has been shown to significantly increase Self Compassion and life satisfaction while reducing depression, anxiety and stress for at least one year. The intention is to develop or strengthen Self Compassion which may lead to reduce Academic Procrastination.

*Interdisciplinary approach:* To foster Self Compassion interdisciplinary approach is preferred. Integrate human kindness, Common humanity as a common thread in Humanities subjects and languages. In science subjects while explaining historical anecdotes of various investigations the perspectives of how the science helped for common humanity may be integrated.

*Collaborative Ventures:* Institution can collaborate with voluntary organization to foster common humanity. The projects like 'compassionate Kerala', 'Compassionate Calicut' etc are good examples. The project is intended to utilize the human and material resources for common humanity.

*Emphasis to soft skills:* To a certain extent soft skills are essential to foster Self Compassion. The skills like negotiation skills, self asserting skills are helpful to promote mindfulness and common humanity. These curricular programmes may lead to reduce Academic Procrastination. Other strategies to foster Self Compassion are following.

- ✓ Promote self regulated learning among students.

- ✓ Enhance innate capability of child through voluntary participation NSS, SPC etc.,
- ✓ Promoting reflective thinking
- ✓ Independent learning
- ✓ Promote common humanity, opportunity for blood donation programme, pain and palliative, providing financial support to students or in difficult situations.
- ✓ Incorporate Yoga in curriculum to facilitate mindfulness.

### **Methodology**

The following strategies are suggested at methodology level.

#### **Reduce Cognitive Dissonance**

- ✓ Train students in conflict resolution strategies: the methods like role playing, tracking, writing about the conflict etc. are the effective strategies.
- ✓ Develop general problem solving skills.
- ✓ Use methods like debate and seminar: debate provide opportunity to rationalize the findings or thought. Seminar provide opportunity to make references in consonance with given assignment.

#### **Foster Self Compassion**

- ✓ Changing your critical self talk: This exercise should be done over several weeks and will eventually form the blueprint for changing how you relate to yourself long-term. Some people find it useful to work on their inner critic



by writing in a journal. Others are more comfortable doing it via internal dialogues. If you are someone who likes to write things down and revisit them later, journaling can be an excellent tool for transformation. If you are someone (like me) who never manages to be consistent with a journal, then do whatever works for you. You can speak aloud to yourself, or think silently (Neff, 2003). Other strategies includes:

- ✓ Teaching methods should be compassionate
- ✓ Co-operative learning strategies: More liberal and relaxed environment which involve the principle of common humanity.
- ✓ Approach problems of the students compassionately; Address personal problems in Compassionate manner.
- ✓ Develop projects to promote compassion

### **Evaluation**

A shift in evaluation procedure is suggested to incorporate the findings.

- ✓ Evaluation strategy should encompass knowledge and behaviour especially out of the school.
- ✓ Measure emotional vulnerability, Cognitive Dissonance.
- ✓ Provide self evaluation strategies
- ✓ Provide self reflection strategies
- ✓ Provide positive reinforcement.
- ✓ Write positive comments in the answer scripts.

## **Home Environment**

The role of parents are importance to create / reduce Cognitive Dissonance among students. Most often the values of students and parents are found to be unparallel especially in the globalized era. The home environment should be restructured to the level best to reduce Cognitive Dissonance there by to reduce Academic Procrastination. Similarly parents should adopt compassionate attitude to the various problems of adolescent's age. Students should be respected as adult and their opinion are to be valued. The following strategies are suggested to reduce Cognitive Dissonance and foster Self Compassion. Other strategies includes:

✓ *Self Compassion: 'A third Parent'*

Be a good parent to yourself- Don't face too strain with yourself , but don't be over indulgent. Finding the sweet spot between there two extremes- being Self Compassionate.

*Self writing*

Write yourself a letter about the issue that's bothering you from perspectives of an imaginary friend who is kind

(Neff,2006)

- ✓ Provide opportunities to relax for few hours after a tough day work.
- ✓ Offers an entertainment or refreshment after a solid piece of work.
- ✓ Encourage to learn from mistake.
- ✓ Avoid self indulgence/ over indulgence.

- ✓ Parents should not impose child for conflicting activities
- ✓ Parents and teachers should helps the child to select right option from two contradictory matters.
- ✓ Ensure the proper functioning of counseling cells.
- ✓ Do not spy on them or accuse them of any wrongdoing. Encourage them to talk and be honest. Tell them what your concerns are and discuss the problem with them.
- ✓ Most of the time, talking about the problems and maintaining a healthy lifestyle can prevent the onset of depression.
- ✓ Teach him to believe in himself.

### **Gender concerns**

The present study reveals that female students lack of Self Compassion has a whole, and common humanity in particular. This create an urgent attention to focus on female students. All the activities to foster Self Compassion, self kindness should be given to students.the results are consistent with past findings women are socialized with the norm of self sacrifice—prioritizing the needs of others over their own—which may impact their ability to give themselves compassion (Baker-Miller, 1986; Raffaelli & Ontai, 2004; Ruble & Martin, 1998). Women have also been found to be more critical of themselves and to use more negative self-talk than males (DeVore, 2013; Leadbeater, Kuperminc, Blatt, & Hertzog, 1999). Moreover, several existing meta-analyses have suggested that women have lower levels of self-esteem (Gentile et al., 2009; Kling, Hyde, Showers, & Buswell, 1999). It is possible that

the greater tendency of women to judge themselves negatively extends to their tendency to be Self Compassionate. Thus, there is reason to believe that women are more likely to lack Self Compassion than men.

**Focus on govt. and VHSE students**

Immediate attention should be given to govt. students in general VHSE students in particular. The govt. school can be reformed to international level by collaborating private public partnership. This will facilitate to implement various intervention programmes to facilitate compassion and to reduce Academic Procrastination.

The summary of the implication presented in the following figure 22

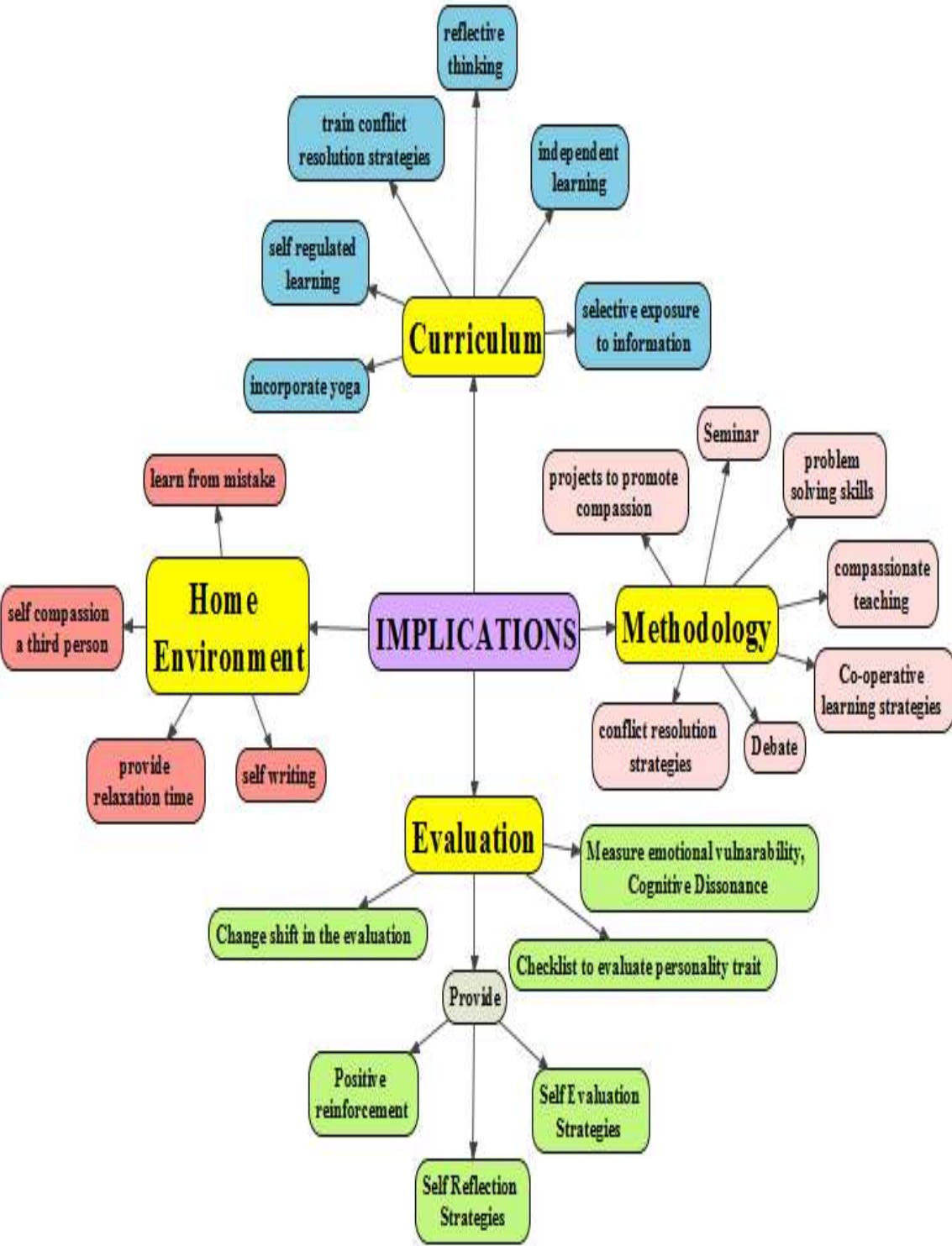


Figure 22: Highlights of implications

### **Suggestions for further research**

The present study is conducted specifying the boundaries of the research area into the influence of Cognitive Dissonance and Self Compassion on Academic Procrastination among higher secondary school students of Kerala. The investigator has faced several limitations to conduct the present study. Hence the investigator suggests a few research areas in which future research must be concentrated.

1. Parallel studies can be conducted to other sample such as primary, upper primary, secondary and graduate students.
2. Replication of the study in other states of the country may be done so that possible differences in the findings resulted from cultural variations can be known.
3. The same study can be conducted with additional independent variables like self regulated learning, techno stress, parenting style, classroom climate , teaching styles of teachers, home environment, motivational belief etc.
4. Experimental study can be conducted to identify Cognitive Dissonance among students.
5. Studies can be conducted to identify other variables as predictors of Academic Procrastination.
6. Studies can be conducted to compare Cognitive Dissonance ,Self Compassion and Academic Procrastination of male and female, rural and urban and government and aided higher secondary school students controlling the other cognitive, affective and social factors.

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## **APPENDICES**

**APPENDIX I**  
**COGNITIVE DISSONANCE SCALE**  
**MALAYALAM (DRAFT)**

**FAROOK TRAINING COLLEGE, RESEARCH CENTRE IN EDUCATION**

Dr. Hassan Koya M.P  
 Assistant Professor  
 Farook Training College

Shimimol P.S  
 Research Scholar (JRF)  
 Farook Training College

**Personal Information**

Name of the student :  
 Name of the school :  
 Type of school : Govt./Aided/Private  
 Gender : Male/Female  
 Locality : Rural /Urban  
 Subject : HSE/VHSE

**SECTION - A**

**നിർദ്ദേശങ്ങൾ**

താഴെ കൊടുത്തിരിക്കുന്ന ഓരോ പ്രസ്ഥാവനയും ശ്രദ്ധാപൂർവ്വം വായിക്കുക. ഓരോ പ്രസ്ഥാവനയ്ക്കും 1. യോജിക്കുന്നു. 2. വിധേയമാകുന്നു എന്നിങ്ങനെ രണ്ട് വീതം പ്രതികരണങ്ങൾ കൊടുത്തിരിക്കുന്നു. ഓരോ പ്രസ്ഥാവനയ്ക്കും നിങ്ങളെ സംബന്ധിച്ചിടത്തോളം എത്രമാത്രം ശരിയാണെന്ന് തീരുമാനിക്കുക. ആ പ്രതികരണം പ്രസ്ഥാവനയുടെ നമ്പറിന് നേരെയുള്ള കോളത്തിൽ (✓) ചിഹ്നമിട്ട് രേഖപ്പെടുത്തുക. എല്ലാ പ്രസ്താവനകൾക്കും പ്രതികരണം രേഖപ്പെടുത്താൻ മറക്കരുത്.

ക്രമ നമ്പർ	പ്രസ്താവന	യോജിക്കുന്നു	വിധേയമാകുന്നു
1	പഠനത്തിന്റെ ഉന്നത നിലവാരത്തിലെത്തുന്നതിന് എല്ലാ ക്ലാസുകളിലും പങ്കെടുക്കേണ്ടത് അനിവാര്യമാണ്.		
2	എന്റെ പ്രശ്നങ്ങൾ പഠനത്തെ ഒരിക്കൽപോലും ബാധിക്കുകയില്ല എന്ന വിശ്വാസമുണ്ട്.		
3	ആരോഗ്യത്തിന് മുടങ്ങാതെയുള്ള വ്യായാമം അത്യന്താപേക്ഷിതമാണെന്നറിയാം.		
4	NCC, SPC മുതലായ സംഘടനകളുടെ പ്രവർത്തനങ്ങൾ സാമൂഹിക പ്രതിബദ്ധത വളർത്താനുതകുന്നതാണ്.		

ക്രമ നമ്പർ	പ്രസ്താവന	യോജിക്കുന്നു	വിയോജിക്കുന്നു
5	പരിസ്ഥിതി സംരക്ഷണം നമ്മുടെ നിലനിൽപ്പിന് അനിവാര്യമായതാണെന്ന ബോധ്യമെന്നിരിക്കട്ടെ.		
6	അസൈൻമെന്റ്, പ്രോജക്ട് ആദിയായവ സ്വന്തം ചിന്താശേഷി ഉപയോഗിച്ച് ക്രിയാത്മകമായി ചെയ്തുതീർക്കേ താണ്.		
7	അധ്യാപകരുടെ സ്നേഹവും താല്പര്യവും നേടുന്നതിന് ക്ലാസ് വർക്കുകൾ കൃത്യതയോടെ യഥാസമയത്ത് ചെയ്ത് തീർക്കേ താണ്.		
8	മത്സര പരീക്ഷകൾ വിജയിക്കാൻ എല്ലാ വിഷയങ്ങളിലും നല്ല അറിവു വായിരിക്കണമെന്നറിയാം.		
9	ഉന്നത വിജയത്തിന് ചിട്ടയായ പഠനം അത്യന്താപേക്ഷിതമാണ്.		
10	ക്ലാസുകൾ ഏകാഗ്രതയോടെ ശ്രദ്ധിക്കുക വഴി നിത്യേനയുള്ള വായനയിൽ സമയം ലാഭിക്കാൻ സാധിക്കും.		
11	ശരിയായ തീരുമാനങ്ങൾ എടുക്കാൻ എനിക്ക് നന്നായി സാധിക്കുമെന്ന വിശ്വാസമുണ്ട്.		
12	സ്കൂളിലെ അച്ചടക്ക നിയമങ്ങൾ കർശനമാണ്. അത് ലംഘിക്കുന്നവർക്ക് തക്കശിക്ഷ ലഭിക്കാറുണ്ട്.		
13	ഏത് പ്രതിസന്ധികളെയും നേരിടാൻ കഴിയുമെന്ന വിശ്വാസം എനിക്കുണ്ട്.		
14	വിദ്യാർത്ഥികളുടെ ക്രിയാത്മകമായ ശേഷികളെ പരിപോഷിപ്പിക്കാൻ work experience ക്ലാസുകളിലൂടെ സാധിക്കാറുണ്ട്.		
15	എനിക്ക് പ്രതിസന്ധികളെ മുൻകൂട്ടി കാണാനും അവയെ തരണം ചെയ്യാനും കഴിയുമെന്ന വിശ്വാസമുണ്ട്.		
16	അധ്യാപകരുടെ ഉപദേശങ്ങൾക്കനുസരിച്ചുള്ള പ്രവർത്തനം വിജയത്തിലേക്ക് നയിക്കുമെന്ന വിശ്വാസമെന്നിരിക്കട്ടെ.		
17	കഠിനാധ്വാനം മാത്രമാണ് എന്നെ വിജയത്തിലെത്തിക്കുന്നത് എന്ന് പൂർണ്ണമായും ഞാൻ വിശ്വസിക്കുന്നു.		
18	മറ്റുള്ളവരുടെ ഉപദേശങ്ങൾ സ്വീകരിക്കാതെ തന്നെ എന്റെ പ്രശ്നങ്ങൾ പരിഹരിക്കാൻ സാധിക്കുമെന്ന വിശ്വാസമുണ്ട്.		
19	സ്കൂളിൽ ലഭിക്കുന്ന ക്ലാസുകൾ മാത്രം മതി എനിക്ക് വിജയിക്കാനെന്ന് ഉറച്ച വിശ്വാസമെന്നിരിക്കട്ടെ.		
20	കൃത്യനിഷ്ഠയോടെയുള്ള പഠനം പരീക്ഷ വേളകളിൽ മാനസിക സമ്മർദ്ദം കുറയ്ക്കുമെന്നറിയാം.		
21	സാഹിത്യ രചനകളോട് താല്പര്യമുണ്ട്.		
22	സ്വന്തം കഴിവിനും താല്പര്യത്തിനുമനുസരിച്ചാണ് വിദ്യാർത്ഥികൾ പഠനഗ്രൂപ്പുകൾ നിരഞ്ഞെടുക്കേ ത്.		



ക്രമ നമ്പർ	പ്രസ്താവന	യോജിക്കുന്നു	വിയോജിക്കുന്നു
23	ഇന്റർനെറ്റിലെ വിദ്യാഭ്യാസ സൈറ്റുകൾ പഠനത്തിന് ഏറെ സഹായകമാണെന്നറിയാം.		
24	ഇംഗ്ലീഷ് ഭാഷയിലുള്ള അറിവ് വളരെ അത്യന്താപേക്ഷിതമാണെന്നും അത് ഉപയോഗിക്കാൻ കിട്ടുന്ന വേദികൾ പ്രയോജനപ്പെടുത്തേ തുമാണ്.		
25	അധ്യാപകരെ പരിഹസിക്കുന്നത് ധർമ്മികനീതിക്ക് എതിരാണ്.		
26	എന്റെ പ്രവർത്തനങ്ങൾ മറ്റുള്ളവർക്ക് ബുദ്ധിമുട്ടാകരുത് എന്ന് ആഗ്രഹിക്കാറുണ്ട്.		
27	പ്ലാസ്റ്റിക് ഉപയോഗത്തിന്റെ ദുഷ്യഫലങ്ങളെക്കുറിച്ച് എനിക്കറിവുണ്ട്.		
28	സത്യസന്ധത വിദ്യാർത്ഥികളുടെ സ്വഭാവഗുണമാണ്.		
29	ലീഡർഷിപ്പിനോട് താല്പര്യമുണ്ട്.		
30	പുലർച്ചെയുള്ള പഠനം പാഠഭാഗങ്ങൾ വേഗത്തിൽ ഗ്രഹിക്കാൻ സാധിക്കുമെന്നറിയാം.		
31	അവധി ദിനങ്ങൾ പഠനസംബന്ധമായ കാര്യങ്ങൾക്കുവേണ്ടി വിനിയോഗിക്കണമെന്നാഗ്രഹിക്കാറുണ്ട്.		
32	പുസ്തകങ്ങളും, നോട്ട്ബുക്കുകളും അടക്കം ചിട്ടയോടെയും സൂക്ഷിക്കണമെന്ന് ആഗ്രഹിക്കാറുണ്ട്.		

**SECTION B**

**നിർദ്ദേശങ്ങൾ**

താഴെ കൊടുത്തിരിക്കുന്ന ഓരോ പ്രസ്താവനയ്ക്കും 1. എല്ലായ്പ്പോഴും 2. ചിലപ്പോൾമാത്രം 3. ഒരിക്കലുമില്ല എന്നിങ്ങനെ മൂന്ന് വീതം പ്രതികരണങ്ങൾ കൊടുത്തിരിക്കുന്നു. ഓരോ പ്രസ്താവനയും നിങ്ങളെ സംബന്ധിച്ചിടത്തോളം എത്രമാത്രം ശരിയാണെന്ന് തീരുമാനിക്കുക. ആ പ്രതികരണം പ്രസ്താവനയുടെ നമ്പറിന് നേരെയുള്ള കോളത്തിൽ (✓) ചിഹ്നമിട്ട് രേഖപ്പെടുത്തുക. എല്ലാ പ്രസ്താവനകൾക്കും പ്രതികരണം രേഖപ്പെടുത്താൻ മറക്കരുത്.

ക്രമ നമ്പർ	പ്രസ്താവന	എല്ലായ്പ്പോഴും	ചിലപ്പോൾമാത്രം	ഒരിക്കലുമില്ല
1	സഹപാഠികളുമൊത്തുള്ള വിനോദങ്ങൾ കാരണം പലക്ലസുകളും പ്രയോജനപ്പെടുത്താൻ എനിക്ക് സാധിക്കാറില്ല.			

ക്രമ നമ്പർ	പ്രസ്താവന	എല്ലായ്പ്പോഴും	ചിലപ്പോൾമാത്രം	ഒരിക്കലുമില്ല
2	പഠനത്തിനിടയ്ക്ക് എന്റെ പ്രശ്നങ്ങൾ മൂലം ഏകാഗ്രത നഷ്ടപ്പെടാറുണ്ട്.			
3	വ്യായാമം ചെയ്യാൻ എനിക്ക് സാധിക്കാറുണ്ട്.			
4	NCC, SPC തുടങ്ങിയവയിൽ നിന്ന് ലഭിക്കുന്ന ഗ്രേസ് മാർക്ക് ഉന്നത് വിജയത്തിന് സഹായകമേകുമെന്ന വിശ്വാസമെനിക്കുണ്ട്.			
5	വ്യക്തതകൾ നട്ടുപിടിപ്പിച്ച് പരിപാലിക്കാൻ എനിക്ക് സാധിക്കാറുണ്ട്.			
6	സുഹൃത്തുക്കളുടെ പ്രോജക്ടുകൾ പകർത്തി ക്ലാസധ്യാപകനെ ഏൽപ്പിക്കേ സാഹചര്യമുണ്ടായിട്ടുണ്ട്.			
7	ഹോംവർക്കുകൾ കൃത്യമായി ചെയ്തുകൊണ്ടിരുന്നതിലൂടെ അധ്യാപകരുടെ പ്രശംസ ലഭിക്കാറുണ്ട്.			
8	പഠനസമയത്ത് എന്റെ ഇഷ്ടവിഷയങ്ങൾ പഠിക്കുന്നതിനോടാണ് താല്പര്യം.			
9	എന്റെ ജീവിത സാഹചര്യങ്ങൾ കൃത്യനിഷ്ഠയോടെയുള്ള പഠനത്തിനനുവദിക്കാറില്ല.			
10	ക്ലാസുകൾ ഏകാഗ്രതയോടെ ശ്രദ്ധിക്കാൻ എനിക്ക് സാധിക്കാറില്ല.			
11	വളരെ നേരം ആലോചിച്ചതിനു ശേഷവും കൃത്യമായ ഒരു തീരുമാനത്തിലെത്തിച്ചേരാൻ സാധിക്കാറില്ല.			
12	സുഹൃത്തുക്കളുമായി ചേർന്ന് സ്കൂൾ നിയമങ്ങൾ ലംഘിക്കേ സാഹചര്യമുണ്ടായിട്ടുണ്ട്.			
13	പരീക്ഷ ബുദ്ധിമുട്ടാണെങ്കിൽ ഞാൻ നിരാശനാകാറുണ്ട്.			
14	ക്രിയാത്മകമായ പല കഴിവുകളും എനിക്ക് കൈമാറ്റം സാധിച്ചത് വർക്ക് എക്സ്പീരിയൻസ് ക്ലാസിലൂടെയാണ്.			
15	എന്റെ പ്രശ്നങ്ങൾ പരിഹരിക്കാൻ പുറമെ നിന്നുള്ള സഹായം തേടി വന്നിട്ടുണ്ട്.			
16	അധ്യാപകരുടെ ഉപദേശങ്ങൾക്കനുസരിച്ച് എന്റെ പഠനരീതികൾ മാറ്റാൻ ഞാൻ ശ്രമിക്കാറുണ്ട്.			
17	ഇപ്പോഴുള്ള നിലവാരം മെച്ചപ്പെടുത്താൻ ഞാൻ കഠിനാധ്വാനം ചെയ്യാറുണ്ട്.			
18	ചില പ്രതിസന്ധിഘട്ടങ്ങളിൽ മറ്റുള്ളവരുടെ ഉപദേശങ്ങൾ ഞാൻ തേടാറുണ്ട്.			

ക്രമ നമ്പർ	പ്രസ്താവന	എല്ലായ്പ്പോഴും	ചിലപ്പോൾമാത്രം	ഒരിക്കലുമില്ല
19	ഉന്നത വിജയത്തിന് ട്യൂഷൻ പോകുന്നത് നല്ലതാണെന്ന് തോന്നാറുണ്ട്.			
20	മിക്ക വിഷയങ്ങളും പരീക്ഷയോടനുബന്ധിച്ച് മാത്രമാണ് പഠിക്കാറുള്ളത്.			
21	സ്കൂൾ മാഗസിനുകൾക്ക് വേണ്ടി രചനകൾ തയ്യാറാക്കാറുണ്ട്.			
22	മാതാപിതാക്കളുടെ താല്പര്യത്തിനനുസരിച്ചാണ് ഞാൻ പഠന ഗ്രൂപ്പ് തിരഞ്ഞെടുത്തത്.			
23	അസൈൻമെന്റ്, പ്രൊജക്ട് മുതലായവ പൂർത്തീകരിക്കാൻ ഇൻ്റർനെറ്റ് സൗകര്യങ്ങൾ ഉപയോഗിക്കാറുണ്ട്.			
24	ഇംഗ്ലീഷ് ക്ലാസുകളിൽ വ്യക്തിഗതമായി അവതരിപ്പിക്കേണ്ട കാര്യങ്ങൾ പോലും ഏറ്റെടുക്കുന്നതിൽ വിമുഖത കാണിക്കാറുണ്ട്.			
25	സുഹൃത്തുക്കളുമൊത്ത് അധ്യാപകരെ പരിഹസിച്ച് സംസാരിക്കുന്നതിൽ ഞാനും പങ്കാളിയാക്കാറുണ്ട്.			
26	ഞാൻ അറിയാതെ പോലും എന്റെ പ്രവർത്തനങ്ങൾ മറ്റുള്ളവരെ അലോസരപ്പെടുത്താറുണ്ട്.			
27	സ്കൂളുകളിലും ക്ലാസ് റൂമുകളിലും കാണുന്ന പ്ലാസ്റ്റിക് മാലിന്യങ്ങൾ മറ്റുള്ളവരുടെ നിർബന്ധം കൂടാതെ ഞാൻ വേസ്റ്റ് ബാസ്ക്കറ്റിൽ നിക്ഷേപിക്കാറുണ്ട്.			
28	ചില കാര്യങ്ങൾ നേടിയെടുക്കുന്നതിനായി കളവ് പറയേ സാഹചര്യം ഉണ്ടായിട്ടുണ്ട്.			
29	ക്ലാസ് റൂമിലെ ഗ്രൂപ്പ് പ്രവർത്തനങ്ങളിൽ നേതൃത്വം വഹിക്കാൻ എനിക്ക് സാധിക്കാറുണ്ട്.			
30	രാവിലെ വൈകിയാണ് ഉറക്കം ഉണരാറുള്ളത്.			
31	അവധി ദിവസങ്ങളിൽ പഠനസംബന്ധമായ കാര്യങ്ങൾക്കു വേണ്ടി വിനിയോഗിക്കാറുണ്ട്.			
32	പഠനശേഷം പുസ്തകങ്ങൾ സൂക്ഷ്മതയോടെ എടുത്ത് വെക്കാറുണ്ട്.			

**APPENDIX II**  
**COGNITIVE DISSONANCE SCALE**  
**ENGLISH (DRAFT)**

**FAROOK TRAINING COLLEGE , RESEARCH CENTRE IN EDUCATION**

Dr. Hassan Koya M.P  
 Assistant Professor  
 Farook Training College

Shimimol P.S  
 Research Scholar (JRF)  
 Farook Training College

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**Personal Information**

Name of Student :  
 Name of School :  
 Type of School : Govt/Aided/Private  
 Gender :Male/Female  
 Locality :Rural/Urban  
 Stream of study :HSE/VHSE

**SECTION –A**

**Instructions:**

Read the following statements carefully. For each statements two responses- Agree, Disagree were given. How far each statement is right about you. Mark your responses by putting tick mark in the column provided. Please don't forget to mark your response for all statements.

Item No.	Statements	Agree	Disagree
1.	It is necessary to attend all class in order to achieve great success.		
2.	I believe that my problem will never effect my learning or education		
3.	I know that exercise is necessary for sound health		
4.	Activities of NCC, SPC and other organizations help to develop social; responsibilities		

<b>Item No.</b>	<b>Statements</b>	<b>Agree</b>	<b>Disagree</b>
5.	I know that environmental protection is necessary for our existence.		
6.	We should complete assignment, project etc. by using our own thinking ability and creativity.		
7.	It is necessary to do our class works on time in order to attain the love and affection of teachers.		
8.	I know that it is necessary to have through knowledge in every subject in order to win competitive exam		
9.	Organized and systematic learning is necessary to achieve success		
10	Listening all the classes carefully will help to consume the reading time.		
11.	I believe that I have the ability to take appropriate decisions.		
12.	There are strict rule and regulations for discipline. Students will be punished if they violated it.		
13	I believe that I have the ability to overcome all the barriers.		
14	Work experience classes help to develop the creative ability of the students		
15	I believe that I have the ability to pursue the problems and overcome it.		
16	I believe that the activities according to the instruction of our teachers will lead to great success		
17	I completely believe that only the hard work lead me to my achievements		
18	I believe that I have the ability to solve my problems without depending on others that get from the school.		
19	I truly believe that classes are enough to achieve great success.		

Item No.	Statements	Agree	Disagree
20	Organized learning helps to reduce mental stress during the time of exams		
21	I am interested in literary works.		
22	Students have to select learning group according to their ability and interest.		
23	I know that educational sites on internet is very helpful for learning.		
24	It is necessary to have good knowledge in English language and maximum utilize the opportunities to use it		
25	Harassing / making fun on teachers is against our ethics.		
26	I wish that my activities never disturb others		
27	I know that consequences of using plastic		
28	Honesty is the behavioral quality of students.		
29	I have interested in leadership.		
30	I know that learning during early morning helps to comprehend the ideas easily.		
31	I wish to utilize the holidays for learning purpose.		
32	I wish to keep text books and note books very neatly and orderly.		

### SECTION- B

Instructions :

For each statements given below three responses- always, sometimes, never were given. How far each statement is right about you. Mark your responses by putting tick mark in the column provided. Please don't forget to mark your response for all statements.

Item No.	Statements	Always	Some times	Never
1.	I can't make use of many classes because of the interactions or entertainments with my fellow students or peers.			

<b>Item No.</b>	<b>Statements</b>	<b>Always</b>	<b>Some times</b>	<b>Never</b>
2.	I can't concentrate on my studies due to personal problems.			
3.	I used to do exercise.			
4.	I believe that grace marks obtained from NCC and SPC help to attain great achievements.			
5.	I can plant trees and take care of it.			
6.	There were instance in which I copied the projects of my class mates.			
7.	I get the praise of teacher for doing my home works regularly.			
8.	I like to study my favorite subjects during study time.			
9.	My life situations never allow me to study punctually and systematically.			
10	I can't concentrate my classes			
11.	I never make an appropriate decision even though I think about it a lot.			
12.	There were instances in which I denied the laws of school with friends.			
13	When exam is difficult I used to be disappoint.			
14	I could find out my creative ability through work experience classes..			
15	I seek the helps from outside / others to solve my problems			
16	I try to change my learning styles as per the instructions of teachers.			
17	I work hard to raise the standard of learning.			
18	I seek the guidance of others in some difficult situations.			
19	It is good to attend tution for high achievement.			

<b>Item No.</b>	<b>Statements</b>	<b>Always</b>	<b>Some times</b>	<b>Never</b>
20	I study most of the subjects only during exam period.			
21	I prepare creative works for school magazine.			
22	I selected my study group according to the internet of my parents.			
23	I use face book like social networking sites during the time of using internet for studying purpose.			
24	I hesitate to present individually in English class rooms.			
25	I mock teachers with my friends.			
26	My actions / activities make nuisance to others.			
27	I used to dump the plastic waste from the school and class rooms in the waste baskets.			
28	There were instance in which I lead to achieve something.			
29	I take the leadership of group activities..			
30	In morning I used to wake up late.			
31	Utilize even the holidays for studying.			
32	I keep my books with care after studying.			



**APPENDIX III**  
**COGNITIVE DISSONANCE SCALE**  
**MALAYALAM (FINAL)**

**FAROOK TRAINING COLLEGE, RESEARCH CENTRE IN EDUCATION**

Dr. Hassan Koya M.P  
Assistant Professor  
Farook Training College

Shimimol P.S  
Research Scholar (JRF)  
Farook Training College

**Personal Information**

Name of the student :  
Name of the school :  
Type of school : Govt./Aided/Private  
Gender : Male/Female  
Locality : Rural /Urban  
Subject : HSE/VHSE

**SECTION - A**

**നിർദ്ദേശങ്ങൾ**

താഴെ കൊടുത്തിരിക്കുന്ന ഓരോ പ്രസ്ഥാവനയും ശ്രദ്ധാപൂർവ്വം വായിക്കുക. ഓരോ പ്രസ്ഥാവനയ്ക്കും 1. യോജിക്കുന്നു. 2. വിയോജിക്കുന്നു എന്നിങ്ങനെ രണ്ട് വീതം പ്രതികരണങ്ങൾ കൊടുത്തിരിക്കുന്നു. ഓരോ പ്രസ്ഥാവനയ്ക്കും നിങ്ങളെ സംബന്ധിച്ചിടത്തോളം എത്രമാത്രം ശരിയാണെന്ന് തീരുമാനിക്കുക. ആ പ്രതികരണം പ്രസ്ഥാവനയുടെ നമ്പറിന് നേരെയുള്ള കോളത്തിൽ (✓) ചിഹ്നമിട്ട് രേഖപ്പെടുത്തുക. എല്ലാ പ്രസ്താവനകൾക്കും പ്രതികരണം രേഖപ്പെടുത്താൻ മറക്കരുത്.

ക്രമ നമ്പർ	പ്രസ്താവന	യോജിക്കുന്നു	വിയോജിക്കുന്നു
1	പഠനത്തിന്റെ ഉന്നത നിലവാരത്തിലെത്തുന്നതിന് എല്ലാ ക്ലാസുകളിലും പങ്കെടുക്കേ തീർന്നിരിക്കണം.		
2	എന്റെ പ്രശ്നങ്ങൾ പഠനത്തെ ഒരിക്കൽപോലും ബാധിക്കുകയില്ല എന്ന വിശ്വാസമുണ്ട്.		
3	ആരോഗ്യത്തിന് മുടങ്ങാതെയുള്ള വ്യായാമം അത്യന്താപേക്ഷിതമാണെന്നറിയാം.		
4	NCC, SPC മുതലായ സംഘടനകളുടെ പ്രവർത്തനങ്ങൾ സാമൂഹിക പ്രതിബദ്ധത വളർത്താനുതകുന്നതാണ്.		

ക്രമ നമ്പർ	പ്രസ്താവന	യോജിക്കുന്നു	വിയോജിക്കുന്നു
5	അസൈൻമെന്റ്, പ്രൊജക്ട് ആദിയായവ സ്വന്തം ചിന്താശേഷി ഉപയോഗിച്ച് ക്രിയാത്മകമായി ചെയ്തുതീർക്കേ താണ്.		
6	അധ്യാപകരുടെ സ്നേഹവും താല്പര്യവും നേടുന്നതിന് ക്ലാസ് വർക്കുകൾ കൃത്യതയോടെ യഥാസമയത്ത് ചെയ്ത് തീർക്കേ താണ്.		
7	മത്സര പരീക്ഷകൾ വിജയിക്കാൻ എല്ലാ വിഷയങ്ങളിലും നല്ല അറിവു വായിരിക്കണമെന്നറിയാം.		
8	ഉന്നത വിജയത്തിന് ചിട്ടയായ പഠനം അത്യന്താപേക്ഷിതമാണ്.		
9	ക്ലാസുകൾ ഏകാഗ്രതയോടെ ശ്രദ്ധിക്കുക വഴി നിത്യേനയുള്ള വായനയിൽ സമയം ലാഭിക്കാൻ സാധിക്കും.		
10	ശരിയായ തീരുമാനങ്ങൾ എടുക്കാൻ എനിക്ക് നന്നായി സാധിക്കുമെന്ന വിശ്വാസമുണ്ട്.		
11	സ്കൂളിലെ അച്ചടക്ക നിയമങ്ങൾ കർശനമാണ്. അത് ലംഘിക്കുന്നവർക്ക് തക്കശിക്ഷ ലഭിക്കാറുണ്ട്.		
12	ഏത് പ്രതിസന്ധികളെയും നേരിടാൻ കഴിയുമെന്ന വിശ്വാസം എനിക്കുണ്ട്.		
13	വിദ്യാർത്ഥികളുടെ ക്രിയാത്മകമായ ശേഷികളെ പരിപോഷിപ്പിക്കാൻ work experience ക്ലാസുകളിലൂടെ സാധിക്കാറുണ്ട്.		
14	എനിക്ക് പ്രതിസന്ധികളെ മുൻകൂട്ടി കാണാനും അവയെ തരണം ചെയ്യാനും കഴിയുമെന്ന വിശ്വാസമുണ്ട്.		
15	അധ്യാപകരുടെ ഉപദേശങ്ങൾക്കനുസരിച്ചുള്ള പ്രവർത്തനം വിജയത്തിലേക്ക് നയിക്കുമെന്ന വിശ്വാസമെനിക്കുണ്ട്.		
16	കഠിനാധ്വാനം മാത്രമാണ് എന്ന വിജയത്തിലെത്തിക്കുന്നത് എന്ന് പൂർണ്ണമായും ഞാൻ വിശ്വസിക്കുന്നു.		
17	മറ്റുള്ളവരുടെ ഉപദേശങ്ങൾ സ്വീകരിക്കാതെ തന്നെ എന്റെ പ്രശ്നങ്ങൾ പരിഹരിക്കാൻ സാധിക്കുമെന്ന വിശ്വാസമുണ്ട്.		
18	സ്കൂളിൽ ലഭിക്കുന്ന ക്ലാസുകൾ മാത്രം മതി എനിക്ക് വിജയിക്കാണെന്ന് ഉറച്ച വിശ്വാസമെനിക്കുണ്ട്.		
19	കൃത്യനിഷ്ഠയോടെയുള്ള പഠനം പരീക്ഷ വേളകളിൽ മാനസിക സമ്മർദ്ദം കുറയ്ക്കുമെന്നറിയാം.		
20	സാഹിത്യ രചനകളോട് താല്പര്യമുണ്ട്.		
21	ഇന്റർനെറ്റിലെ വിദ്യാഭ്യാസ സൈറ്റുകൾ പഠനത്തിന് ഏറെ സഹായകമാണെന്നറിയാം.		
22	ഇംഗ്ലീഷ് ഭാഷയിലുള്ള അറിവ് വളരെ അത്യന്താപേക്ഷിതമാണെന്നും അത് ഉപയോഗിക്കാൻ കിട്ടുന്ന വേദികൾ പ്രയോജനപ്പെടുത്തേ തുമാണ്.		
23	അധ്യാപകരെ പരിഹസിക്കുന്നത് ധാർമ്മികനീതിക്ക് എതിരാണ്.		

ക്രമ നമ്പർ	പ്രസ്താവന	യോജിക്കുന്നു	വിയോജിക്കുന്നു
24	എന്റെ പ്രവർത്തനങ്ങൾ മറ്റുള്ളവർക്ക് ബുദ്ധിമുട്ടാകരുത് എന്ന് ആഗ്രഹിക്കാറുണ്ട്.		
25	പ്ലാസ്റ്റിക് ഉപയോഗത്തിന്റെ ദുഷ്യഫലങ്ങളെക്കുറിച്ച് എനിക്കറിവുണ്ട്.		
26	സത്യസന്ധത വിദ്യാർത്ഥികളുടെ സ്വഭാവഗുണമാണ്.		
27	ലീഡർഷിപ്പിനോട് താല്പര്യമുണ്ട്.		
28	പുലർച്ചെയുള്ള പഠനം പാഠഭാഗങ്ങൾ വേഗത്തിൽ ഗ്രഹിക്കാൻ സാധിക്കുമെന്നറിയാം.		
29	പുസ്തകങ്ങളും, നോട്ട്ബുക്കുകളും അടക്കം ചിട്ടയോടെയും സൂക്ഷിക്കണമെന്ന് ആഗ്രഹിക്കാറുണ്ട്.		

**SECTION B**

**നിർദ്ദേശങ്ങൾ**

താഴെ കൊടുത്തിരിക്കുന്ന ഓരോ പ്രസ്താവനയ്ക്കും 1. എല്ലായ്പ്പോഴും 2. ചിലപ്പോൾമാത്രം 3. ഒരിക്കലുമില്ല എന്നിങ്ങനെ മൂന്ന് വീതം പ്രതികരണങ്ങൾ കൊടുത്തിരിക്കുന്നു. ഓരോ പ്രസ്താവനയും നിങ്ങളെ സംബന്ധിച്ചിടത്തോളം എത്രമാത്രം ശരിയാണെന്ന് തീരുമാനിക്കുക. ആ പ്രതികരണം പ്രസ്താവനയുടെ നമ്പറിന് നേരെയുള്ള കോളത്തിൽ (✓) ചിഹ്നമിട്ട് രേഖപ്പെടുത്തുക. എല്ലാ പ്രസ്താവനകൾക്കും പ്രതികരണം രേഖപ്പെടുത്താൻ മറക്കരുത്.

ക്രമ നമ്പർ	പ്രസ്താവന	എല്ലായ്പ്പോഴും	ചിലപ്പോൾമാത്രം	ഒരിക്കലുമില്ല
1	സഹപാഠികളുമൊത്തുള്ള വിനോദങ്ങൾ കാരണം പലക്ലബ്ബുകളും പ്രയോജനപ്പെടുത്താൻ എനിക്ക് സാധിക്കാറില്ല.			
2	പഠനത്തിനിടയ്ക്ക് എന്റെ പ്രശ്നങ്ങൾ മൂലം ഏകാഗ്രത നഷ്ടപ്പെടാറുണ്ട്.			
3	വ്യായാമം ചെയ്യാൻ എനിക്ക് സാധിക്കാറുണ്ട്.			
4	NCC, SPC തുടങ്ങിയവയിൽ നിന്ന് ലഭിക്കുന്ന ഗ്രേസ് മാർക്ക് ഉന്നത് വിജയത്തിന് സഹായകമേകുമെന്ന വിശ്വാസമെനിക്കുണ്ട്.			
5	സുഹൃത്തുക്കളുടെ പ്രൊജക്ടുകൾ പകർത്തി ക്ലാസധ്യാപകനെ ഏൽപ്പിക്കേ സാഹചര്യമുണ്ടായിട്ടുണ്ട്.			

ക്രമ നമ്പർ	പ്രസ്താവന	എല്ലായ്പ്പോഴും	ചിലപ്പോൾമാത്രം	ഒരിക്കലുമില്ല
6	ഹോംവർക്കുകൾ കൃത്യമായി ചെയ്തുകൊണ്ടിരിക്കുന്നതിലൂടെ അധ്യാപകരുടെ പ്രശംസ ലഭിക്കാറുണ്ട്.			
7	പഠനസമയത്ത് എന്റെ ഇഷ്ടവിഷയങ്ങൾ പഠിക്കുന്നതിനോടാണ് താല്പര്യം.			
8	എന്റെ ജീവിത സാഹചര്യങ്ങൾ കൃത്യനിഷ്ഠയോടെയുള്ള പഠനത്തിനനുവദിക്കാറില്ല.			
9	ക്ലാസുകൾ ഏകാഗ്രതയോടെ ശ്രദ്ധിക്കാൻ എനിക്ക് സാധിക്കാറില്ല.			
10	വളരെ നേരം ആലോചിച്ചതിനു ശേഷവും കൃത്യമായ ഒരു തീരുമാനത്തിലെത്തിച്ചേരാൻ സാധിക്കാറില്ല.			
11	സുഹൃത്തുക്കളുമായി ചേർന്ന് സ്കൂൾ നിയമങ്ങൾ ലംഘിക്കേ സാഹചര്യമുണ്ടായിട്ടുണ്ട്.			
12	പരീക്ഷ ബുദ്ധിമുട്ടാണെങ്കിൽ ഞാൻ നിരാശനാകാറുണ്ട്.			
13	ക്രിയാത്മകമായ പല കഴിവുകളും എനിക്ക് കൈമാറ്റം സാധിച്ചത് വർക്ക് എക്സ്പീരിയൻസ് ക്ലാസിലൂടെയാണ്.			
14	എന്റെ പ്രശ്നങ്ങൾ പരിഹരിക്കാൻ പുറമെ നിന്നുള്ള സഹായം തേടേണ്ടിവന്നിട്ടുണ്ട്.			
15	അധ്യാപകരുടെ ഉപദേശങ്ങൾക്കനുസരിച്ച് എന്റെ പഠനരീതികൾ മാറ്റാൻ ഞാൻ ശ്രമിക്കാറുണ്ട്.			
16	ഇപ്പോഴുള്ള നിലവാരം മെച്ചപ്പെടുത്താൻ ഞാൻ കഠിനാധ്വാനം ചെയ്യാറുണ്ട്.			
17	ചില പ്രതിസന്ധിഘട്ടങ്ങളിൽ മറ്റുള്ളവരുടെ ഉപദേശങ്ങൾ ഞാൻ തേടാറുണ്ട്.			
18	ഉന്നത വിജയത്തിന് ട്യൂഷൻ പോകുന്നത് നല്ലതാണെന്ന് തോന്നാറുണ്ട്.			
19	മിക്ക വിഷയങ്ങളും പരീക്ഷയോടനുബന്ധിച്ച് മാത്രമാണ് പഠിക്കാറുള്ളത്.			
20	സ്കൂൾ മാഗസിനുകൾക്ക് വേണ്ടി രചനകൾ തയ്യാറാക്കാറുണ്ട്.			
21	അസൈൻമെന്റ്, പ്രൊജക്ട് മുതലായവ പൂർത്തീകരിക്കാൻ ഇന്റർനെറ്റ് സൗകര്യങ്ങൾ ഉപയോഗിക്കാറുണ്ട്.			
22	ഇംഗ്ലീഷ് ക്ലാസുകളിൽ വ്യക്തിഗതമായി അവതരിപ്പിക്കേണ്ട കാര്യങ്ങൾ പോലും ഏറ്റെടുക്കുന്നതിൽ വിമുഖത കാണിക്കാറുണ്ട്.			
23	സുഹൃത്തുക്കളുമൊത്ത് അധ്യാപകരെ പരിഹസിച്ച് സംസാരിക്കുന്നതിൽ ഞാനും പങ്കാളിയാകാറുണ്ട്.			
24	ഞാൻ അറിയാതെ പോലും എന്റെ പ്രവർത്തനങ്ങൾ മറ്റുള്ളവരെ അലോസരപ്പെടുത്താറുണ്ട്.			

Appendices

ക്രമ നമ്പർ	പ്രസ്താവന	എല്ലായ്പ്പോഴും	ചിലപ്പോൾമാത്രം	ഒരിക്കലുമില്ല
25	സ്കൂളുകളിലും ക്ലാസ് റൂമുകളിലും കാണുന്ന പ്ലാസ്റ്റിക് മാലിന്യങ്ങൾ മറ്റുള്ളവരുടെ നിർബന്ധം കൂടാതെ ഞാൻ വേസ്റ്റ് ബാസ്കറ്റിൽ നിക്ഷേപിക്കാറുണ്ട്.			
26	ചില കാര്യങ്ങൾ നേടിയെടുക്കുന്നതിനായി കളവ് പറയേ സാഹചര്യം ഉണ്ടായിട്ടുണ്ട്.			
27	ക്ലാസ് റൂമിലെ ഗ്രൂപ്പ് പ്രവർത്തനങ്ങളിൽ നേതൃത്വം വഹിക്കാൻ എനിക്ക് സാധിക്കാറുണ്ട്.			
28	രാവിലെ വൈകിയാണ് ഉറക്കം ഉണരാറുള്ളത്.			
29	പഠനശേഷം പുസ്തകങ്ങൾ സൂക്ഷ്മതയോടെ എടുത്ത് വെക്കാറുണ്ട്.			

**APPENDIX IV****COGNITIVE DISSONANCE SCALE****ENGLISH (FINAL)****FAROOK TRAINING COLLEGE , RESEARCH CENTRE IN EDUCATION**

Dr. Hassan Koya M.P  
Assistant Professor  
Farook Training College

Shimimol P.S  
Research Scholar (JRF)  
Farook Training College

**Personal Information**

Name of Student :  
Name of School :  
Type of School : Govt/Aided/Private  
Gender :Male/Female  
Locality :Rural/Urban  
Stream of study :HSE/VHSE

**SECTION –A****Instructions:**

Read the following statements carefully. For each statements two responses- Agree, Disagree were given. How far each statement is right about you. Mark your responses by putting tick mark in the column provided. Please don't forget to mark your response for all statements.

<b>Item No.</b>	<b>Statements</b>	<b>Agree</b>	<b>Disagree</b>
1.	It is necessary to attend all class in order to achieve great success.		
2.	I believe that my problem will never effect my learning or education		
3.	I know that exercise is necessary for sound health		
4.	Activities of NCC, SPC and other organizations help to develop social; responsibilities		
5	We should complete assignment, project etc. by using our own thinking ability and creativity.		

<b>Item No.</b>	<b>Statements</b>	<b>Agree</b>	<b>Disagree</b>
6	It is necessary to do our class works on time in order to attain the love and affection of teachers.		
7	I know that it is necessary to have through knowledge in every subject in order to win competitive exam		
8	Organized and systematic learning is necessary to achieve success		
9	Listening all the classes carefully will help to consume the reading time.		
10	I believe that I have the ability to take appropriate decisions.		
11	There are strict rule and regulations for discipline. Students will be punished if they violated it.		
12	I believe that I have the ability to overcome all the barriers.		
13	Work experience classes help to develop the creative ability of the students		
14	I believe that I have the ability to pursue the problems and overcome it.		
15	I believe that the activities according to the instruction of our teachers will lead to great success		
16	I completely believe that only the hard work lead me to my achievements		
17	I believe that I have the ability to solve my problems without depending on others that get from the school.		
18	I truly believe that classes are enough to achieve great success.		
19	Organized learning helps to reduce mental stress during the time of exams		
20	I am interested in literary works.		
21	I know that educational sites on internet is very helpful for learning.		

Item No.	Statements	Agree	Disagree
22	It is necessary to have good knowledge in English language and maximum utilize the opportunities to use it		
23	Harassing / making fun on teachers is against our ethics.		
24	I wish that my activities never disturb others		
25	I know that consequences of using plastic		
26	Honesty is the behavioral quality of students.		
27	I have interested in leadership.		
28	I know that learning during early morning helps to comprehend the ideas easily.		
29	I wish to keep text books and note books very neatly and orderly.		

### SECTION- B

Instructions :

For each statements given below three responses- always, sometimes, never were given. How far each statement is right about you. Mark your responses by putting tick mark in the column provided. Please don't forget to mark your response for all statements.

Item No.	Statements	Always	Some times	Never
1.	I can't make use of many classes because of the interactions or entertainments with my fellow students or peers.			
2.	I can't concentrate on my studies due to personal problems.			
3.	I used to do exercise.			
4.	I believe that grace marks obtained from NCC and SPC help to attain great achievements.			



<b>Item No.</b>	<b>Statements</b>	<b>Always</b>	<b>Some times</b>	<b>Never</b>
5	There were instance in which I copied the projects of my class mates.			
6	I get the praise of teacher for doing my home works regularly.			
7	I like to study my favorite subjects during study time.			
8	My life situations never allow me to study punctually and systematically.			
9	I can't concentrate my classes			
10	I never make an appropriate decision even though I think about it a lot.			
11	There were instances in which I denied the laws of school with friends.			
12	When exam is difficult I used to be disappoint.			
13	I could find out my creative ability through work experience classes..			
14	I seek the helps from outside / others to solve my problems			
15	I try to change my learning styles as per the instructions of teachers.			
16	I work hard to raise the standard of learning.			
17	I seek the guidance of others in some difficult situations.			
18	It is good to attend tuition for high achievement.			
19	I study most of the subjects only during exam period.			
20	I prepare creative works for school magazine.			
21	I use face book like social networking sites during the time of using internet for studying purpose.			

<b>Item No.</b>	<b>Statements</b>	<b>Always</b>	<b>Some times</b>	<b>Never</b>
22	I hesitate to present individually in English class rooms.			
23	I mock teachers with my friends.			
24	My actions / activities make nuisance to others.			
25	I used to dump the plastic waste from the school and class rooms in the waste baskets.			
26	There were instance in which I lead to achieve something.			
27	I take the leadership of group activities..			
28	In morning I used to wake up late.			
29	I keep my books with care after studying.			

**APPENDIX V**

**SELF COMPASSION SCALE**

**MALAYALAM (DRAFT)**

FAROOK TRAINING COLLEGE, RESEARCH CENTRE IN EDUCATION

Dr. Hassan Koya M.P  
Assistant Professor  
Farook Training College

Shimimol P.S  
Research Scholar (JRF)  
Farook Training College

**Personal Information**

Name of the student :  
Name of the school :  
Type of school : Govt./Aided/Private  
Gender : Male/Female  
Locality : Rural /Urban  
Subject : HSE/VHSE

**നിർദ്ദേശങ്ങൾ:**

താഴെ കൊടുത്തിരിക്കുന്ന ഓരോ പ്രസ്താവനയും ശ്രദ്ധാപൂർവ്വം വായിക്കുക. ഓരോ പ്രസ്താവനക്കും 1. പൂർണ്ണമായും യോജിക്കുന്നു, 2. യോജിക്കുന്നു, 3. അഭിപ്രായമില്ല, 4. വിധേയമാക്കുന്നു, 5. പൂർണ്ണമായും വിധേയമാക്കുന്നു എന്നിങ്ങനെ അഞ്ചുവീതം പ്രതികരണങ്ങൾ കൊടുത്തിരിക്കുന്നു. ഓരോ പ്രസ്താവനയും നിങ്ങളെ സംബന്ധിച്ചിടത്തോളം എത്രമാത്രം ശരിയാണെന്ന് തീരുമാനിക്കുക. ആ പ്രതികരണം പ്രസ്താവനയുടെ നമ്പറിന് നേരെയുള്ള കോളത്തിൽ (✓) ചിഹ്നമിട്ട് രേഖപ്പെടുത്തുക. എല്ലാ പ്രസ്താവനകൾക്കും പ്രതികരണം രേഖപ്പെടുത്താൻ മറക്കരുത്.

ക്രമ നമ്പർ	പ്രസ്താവന	പൂർണ്ണമായും യോജിക്കുന്നു	യോജിക്കുന്നു	അഭിപ്രായമില്ല	വിധേയമാക്കുന്നു	പൂർണ്ണമായും വിധേയമാക്കുന്നു
1	പരീക്ഷയിൽ കുറഞ്ഞ മാർക്ക് ലഭിക്കുമ്പോൾ സ്വയം കുറ്റപ്പെടുത്തി കഴിവുകുറഞ്ഞവനാണെന്ന് ചിന്തിക്കാറുണ്ട്.					
2	മറ്റുള്ളവർ എന്നെ കുറ്റപ്പെടുത്തുമ്പോൾ അതിൽ നിരാശനാകാറില്ല.					
3	അമിതമായ മാനസിക വിഷമങ്ങൾ ഉണ്ടാകുമ്പോൾ സ്വയം കുറ്റപ്പെടുത്താറില്ല.					

ക്രമ നമ്പർ	പ്രസ്താവന	പൂർണ്ണമായും യോജിക്കുന്നു	യോജിക്കുന്നു	അഭിപ്രായമില്ല	വിയോജിക്കുന്നു	പൂർണ്ണമായും വിയോജിക്കുന്നു
4	പരിമിതമായ ജീവിത സാഹചര്യങ്ങളാണ് പഠനത്തെ പിന്നോക്കം നിർത്തുന്നത് എന്നോർത്ത് നിരാശനകാറു .					
5	അധ്യാപകരും സഹപാഠികളുമായി ആത്മബന്ധമില്ലാത്തതിൽ സ്വയം കുറ്റപ്പെടുത്താറു .					
6	പരിശ്രമിച്ചാൽ വിജയം കൈവരിക്കാൻ സാധിക്കുമെന്ന വിശ്വാസമാണ് എന്നെ മുന്നോട്ട് നയിക്കുന്നത്.					
7	കടുത്ത പ്രതിസന്ധികളെ അഭിമുഖീകരിക്കേ 1 വരുമ്പോൾ സ്വയം പരിഗണനയും കരുതലും കാണിക്കാറു .					
8	പ്രതീക്ഷിച്ചതും ആഗ്രഹിച്ചതുമായ കാര്യങ്ങൾ ലഭിക്കാതെ വരുമ്പോൾ സ്വയം പുച്ഛം തോന്നാറു .					
9	പഠിച്ച കാര്യങ്ങൾ വേ വിധം ഓർത്തെടുക്കാൻ സാധിക്കാതെ വരുമ്പോൾ സങ്കടം തോന്നാറു .					
10	അവശ്യമുള്ള വസ്തുക്കൾ ലഭ്യമാകാതെ വരുമ്പോൾ അതോർത്ത് സങ്കടപ്പെടാറില്ല.					
11	അധ്യാപകർ ചില സാഹചര്യങ്ങളിൽ അഭിനന്ദിക്കുമ്പോൾ പോലും എന്റെ കഴിവ് തിരിച്ചറിയാൻ എനിക്ക് സാധിക്കാറില്ല.					
12	എന്റെ തെറ്റുകൾ കെത്തി ദുഃഖിതനാകാറു .					
13	മാതാപിതാക്കളുടെ പ്രതികരണത്തിൽ ഞാൻ വിഷമിക്കാറില്ല.					
14	എന്റെ പരിമിതികളെക്കുറിച്ചാലോചിച്ച് സങ്കടപ്പെടാറു .					
15	വേദനാജനകമായ സാഹചര്യങ്ങളിൽ ഞാൻ അതീവദുഃഖിതനാകാറു .					
16	മാതാപിതാക്കൾ എന്നെ കുറ്റപ്പെടുത്തുമ്പോൾ എനിക്ക് എന്നോട് തന്നെ അലിവ് തോന്നാറു .					
17	തോൽവിയിൽ വിഷമിക്കാതെ അത് വിജയത്തിലേക്കുള്ള ചവിട്ടുപടിയായി കണക്കാക്കാറു .					

ക്രമ നമ്പർ	പ്രസ്താവന	പൂർണ്ണമായും യോജിക്കുന്നു	യോജിക്കുന്നു	അഭിപ്രായമില്ല	വിയോജിക്കുന്നു	പൂർണ്ണമായും വിയോജിക്കുന്നു
18	സുഹൃത്തുക്കൾ എന്ന കളിയാക്കുമ്പോൾ എന്റെ കഴിവുകേടിനെ കുറപ്പെടുത്താറുണ്ട്.					
19	പ്രതിസന്ധിഘട്ടങ്ങളിൽ സുഹൃത്തുക്കൾ എന്ന സഹായിക്കാത്തത് എന്റെ തെറ്റ് കാരണമാണെന്ന് വിചാരിക്കാറുണ്ട്.					
20	പരീക്ഷകളിൽ വിജയിക്കാൻ സാധിക്കാതെ വരുമ്പോൾ മറ്റുള്ളവർക്കും ഇതേ സാഹചര്യം ഉണ്ടാകാറുണ്ടെന്നോർത്ത് സമാധാനിക്കാറുണ്ട്.					
21	കുറപ്പെടുത്തലുകൾ ഏറ്റുവാങ്ങുമ്പോൾ എല്ലാവർക്കും ഇതേ അനുഭവങ്ങൾ നേരിടേണ്ടിവന്നിട്ടുണ്ടെന്നോർക്കാറുണ്ട്.					
22	മാനസിക വിഷമകൾ മനുഷ്യജീവിതം നേരിടേണ്ടതാണെന്ന ബോധ്യത്തോടെ എന്റെ വിഷമങ്ങളിൽ ആത്മസംയമനം പാലിക്കാറുണ്ട്.					
23	നീതിപൂർവ്വമല്ലാത്ത ശിക്ഷാനടപടികൾ എന്ന സങ്കടപ്പെടുത്താറുണ്ടെങ്കിലും സമാന സാഹചര്യത്തിലുള്ളവരെ ഓർത്ത് ആശ്വസിക്കാറുണ്ട്.					
24	അധ്യാപകർ തന്നെ മാത്രമാണ് കുറപ്പെടുത്തുന്നത് എന്നോർത്ത് സങ്കടപ്പെടാറുണ്ട്.					
25	കഠിനമായി അധ്വാനിച്ചിട്ടും വിജയിക്കാൻ കഴിയാത്തത് എന്നിങ്ങനെയൊന്നോർത്ത് വിഷമിക്കാറുണ്ട്.					
26	പഠനം ഏറ്റവും ബുദ്ധിമുട്ടായി തോന്നുന്നത് എനിക്ക് മാത്രമാണ് എന്ന് വിചാരിക്കാറുണ്ട്.					
27	ഞാൻ സങ്കടപ്പെട്ടിരിക്കുമ്പോൾ മറ്റുള്ളവരെല്ലാം സന്തോഷകരമായി ഇരിക്കുന്നതായി തോന്നാറുണ്ട്.					
28	എനിക്ക് പ്രധാനപ്പെട്ട ഒരു മോവലയിൽ പരാജിതനാകുമ്പോൾ അതിൽ ഞാൻ ഏകനാണ് എന്ന് തോന്നാറുണ്ട്.					
29	മറ്റു കുട്ടികളുടെ മുൻപിൽ വെച്ച് അധ്യാപകർ വഴക്ക് പറയുമ്പോൾ ഞാൻ ഒറ്റപ്പെട്ടു പോകുന്നതായി തോന്നാറുണ്ട്.					
30	ഞാൻ മാത്രമാണ് ഈ ലോകത്ത് ഇത്രയധികം വിഷമങ്ങൾ അനുഭവിക്കുന്നത് എന്ന് തോന്നാറുണ്ട്.					

ക്രമ നമ്പർ	പ്രസ്താവന	പൂർണ്ണമായും യോജിക്കുന്നു	യോജിക്കുന്നു	അഭിപ്രായമില്ല	വിയോജിക്കുന്നു	പൂർണ്ണമായും വിയോജിക്കുന്നു
31	എന്റെ പരിമിതികളെക്കുറിച്ച് ചിന്തിക്കുമ്പോൾ ഞാൻകൂടുതൽ ഒറ്റപ്പെട്ടതായി അനുഭവപ്പെടാറുണ്ട്.					
32	മാനസികമായി വിഷമങ്ങളുടേതുകൊണ്ട് അതിൽഞാൻ ഏകനായിരിക്കാറുണ്ട്.					
33	എന്റെ പ്രശ്നങ്ങൾ കാരണം സുഹൃത്തുക്കളുടെ ഇടയിൽ ഞാൻ ഒറ്റപ്പെട്ടതായി തോന്നാറുണ്ട്.					
34	സന്ദർഭോചിതമായി പെരുമാറുന്നതിൽ ഞാൻ ശ്രദ്ധാലുവാണ്.					
35	വേദനാജനകമായ സംഭവങ്ങളെ യാഥാർത്ഥ്യബോധത്തോടെ കാണാൻ ശ്രമിക്കാറുണ്ട്.					
36	സുഖദുഃഖങ്ങളിൽ മനസിനെ ഒരേ നിലയിൽ കൊടുപോകാൻ ശ്രമിക്കാറുണ്ട്.					
37	ഏത് സാഹചര്യങ്ങളുമായും പൊരുത്തപ്പെടാൻ എന്റെ മനസിനെ ഞാൻ പാകപ്പെടുത്തിയെടുക്കാറുണ്ട്.					
38	സുഹൃത്തുക്കളുമായുള്ള പ്രശ്നങ്ങളിൽ അമിതമായി ദുഃഖിതനാവാതിരിക്കാൻ ഞാൻ ശ്രമിക്കാറുണ്ട്.					
39	തോൽവിയെ അഭിമുഖീകരിക്കുമ്പോൾ മാനസികമായി വേദനിക്കാതിരിക്കാൻ ഞാൻ ശ്രമിക്കാറുണ്ട്.					
40	വ്യക്തിപരമായ പ്രശ്നങ്ങളെയോർത്ത് വ്യാകുലപ്പെടാതെയാണ് പഠനസംബന്ധമായ കാര്യങ്ങൾ കൈകാര്യം ചെയ്യുന്നത്.					
41	അനുഭവങ്ങളെ മുൻധാരണയോടെ സമീപിക്കാറില്ല.					
42	ചെയ്യുന്ന പ്രവർത്തനങ്ങളിൽ പൂർണ്ണ ശ്രദ്ധ കേന്ദ്രീകരിക്കാൻ എനിക്കെളുപ്പത്തിൽ സാധിക്കാറുണ്ട്.					
43	ഒരു പ്രത്യേക സാഹചര്യത്തിൽ ഞാനെടുത്ത തീരുമാനങ്ങളെ മറ്റുള്ളവരോട് വിശദമാക്കാൻ സാധിക്കാറുണ്ട്.					
44	എന്റെ ശ്രദ്ധ പെട്ടെന്ന് വ്യതിചലിക്കാറുണ്ട്.					
45	ബുദ്ധിമുട്ടുള്ള സാഹചര്യങ്ങളിൽ ഞാൻ ആലോചിച്ചതിനു ശേഷമേ പ്രതികരിക്കാറുള്ളൂ.					

ക്രമ നമ്പർ	പ്രസ്താവന	പൂർണ്ണമായും യോജിക്കുന്നു	യോജിക്കുന്നു	അഭിപ്രായമില്ല	വിയോജിക്കുന്നു	പൂർണ്ണമായും വിയോജിക്കുന്നു
46	പ്രയാസമേറിയ പ്രവർത്തനങ്ങൾ ചെയ്യുമ്പോൾ പോലും മാനസികമായ ഒരു സംത്യപ്തി കൈവരാറുണ്ട്.					
47	എന്റെ കാര്യങ്ങൾ പോലെ മറ്റുള്ളവരുടെ കാര്യത്തിലും ഞാൻ അക്ഷമനാണ്.					
48	എന്റെ ചിന്തകളിലെ ശരിയും തെറ്റും ഞാൻ വിലയിരുത്താറുണ്ട്.					
49	യാത്രയിലാണ് ഞാൻ പല കാര്യങ്ങളും ചെയ്യാറുള്ളത്.					
50	ഞാൻ ചെയ്തതെന്താണെന്ന് പിന്നീട്പോഴെങ്കിലും തിരിച്ചറിയാറുള്ളത്.					
51	എന്റെ ഇപ്പോഴത്തെ ജീവിത സാഹചര്യവുമായി പൊരുത്തപ്പെട്ടുപോകാൻ എനിക്ക് സാധിക്കുന്നുണ്ട്.					
52	മറ്റുള്ളവർ പറയുന്നത് ശ്രദ്ധയോടെ കേട്ടിരിക്കാൻ എനിക്ക് സാധിക്കാറില്ല.					
53	തോൽവുകൾ ജീവിതത്തെ കൂടുതൽ മനസ്സിലാക്കാനുള്ള പാഠങ്ങളായി ഞാൻ കാണാറുണ്ട്.					
54	പുതിയ കാര്യങ്ങൾ പഠിക്കാൻ എനിക്ക് കഴിയുമെന്ന് ഞാൻ ഉറച്ച് വിശ്വസിക്കാറുണ്ട്.					
55	തെറ്റുപറ്റിയാൽ 'ഞാൻ എപ്പോഴും ഇങ്ങനെയാ' എന്നൊരിക്കൽക്കൂടി പറഞ്ഞുറപ്പിക്കാറുണ്ട്.					

**APPENDIX VI**  
**SELF COMPASSION SCALE**

**ENGLISH (DRAFT)**

**FAROOK TRAINING COLLEGE , RESEARCH CENTRE IN  
EDUCATION**

Dr. Hassan Koya M.P  
Assistant Professor  
Farook Training College

Shimimol P.S  
Research Scholar (JRF)  
Farook Training College

**Personal Information**

Name of Student :  
Name of School :  
Type of School :Govt/Aided/Private  
Gender :Male/Female  
Locality :Rural/Urban  
Subject :HSE/VHSE

**Instructions:**

Read the following statements carefully. For each statements five responses- Strongly agree (SA), Agree (A), No opinion (NO), disagree (D), Strongly disagree (SD) were given. How far each statement is right about you. Mark your response by putting tick mark in the column provided. Please don't forget to mark your response for all statements.

<b>Item no.</b>	<b>Statements</b>	<b>SA</b>	<b>A</b>	<b>N.O</b>	<b>D</b>	<b>SD</b>
1	I blame myself when I get low score in exams.					
2	I never be disappoint when others blame on me.					
3	I never blame myself when I have high mental pressure.					
4	I became frustrate by thinking that limited life situations are the reason for educational backwardness.					



Item no.	Statements	SA	A	N.O	D	SD
5.	I blame myself for my failure to create an intimate relationships with teachers and friends.					
6	The belief practice helps to attain great achievements lead my life forwards.					
7	I shows self consideration and care when I want to face difficult problems or situations.					
8	I condemn myself when I failed to get expected things.					
9	It makes me unhappy when I failed to remember learned things or lessons.					
10	It never makes me unhappy when I failed to get necessary things.					
11	I can't realize my abilities even when my teachers congratulate me on my success.					
12	I feel desperate on my wrong doings.					
13	I never feel unhappy on the response of my parents.					
14	I feel unhappy by thinking about my limitations.					
15	I feel too much sadness in painful situations.					
16	I pity on myself when parents blame me.					
17	I see failure as a stepping stone to success.					
18	I blame myself on my limitations when friends mocks me.					
19	I believe that the errors from the part of myself are the reason for the unwillingness of my friends to help me in difficult situations.					
20	When I fail in exam I console myself by comparing to those who have the similar situation.					
21	I console myself when others blame on me by comparing to those who face the similar situations.					

<b>Item no.</b>	<b>Statements</b>	<b>SA</b>	<b>A</b>	<b>N.O</b>	<b>D</b>	<b>SD</b>
22	I try to be self controlled in my problems with a view that problems are the part of human life.					
23	Punishments which are based on injustice make me sad meanwhile I console myself by comparing me to those who have the similar situations.					
24	I feel sad by thinking that teachers blame only me.					
25	I feel unhappy by thinking that I am the only person who could not achieve success even though hard worked a lot or practiced a lot.					
26	I think that I am the only person who fail difficulty in learning.					
27	I feel that others are happy when I am unhappy.					
28	I feel alone when I fail in my important or favorite field.					
29	I feel alone when teachers scold me in front of other students.					
30	I used to think that I am the only person who have a lot of problems.					
31	I feel too much loneliness when thinking about my limitations.					
32	I sit alone when I have problems or mental difficulties.					
33	When I am with my friends I feel alone because of my problems.					
34	I am very careful to behave according to different situations.					
35	I try to be realistic on painful situations.					
36	I try to balance happiness and unhappiness					
37	I train my mind to cope up with different life situations.					

<b>Item no.</b>	<b>Statements</b>	<b>SA</b>	<b>A</b>	<b>N.O</b>	<b>D</b>	<b>SD</b>
38	When I have problems with friends I try not to be over tensed					
39	I try to keep my mind away from pain when I face failure.					
40	I handle educational matters by imparting it from my personnel problems.					
41	I never approach experience with prejudice.					
42	I can easily concentrate on the works that I do.					
43	I can justify my decisions to others that I took in a particular situation.					
44	It is very easy to distract my concentration.					
45	In difficult situations I respond my thinking about it a lot.					
46	I get mental satisfaction even though from difficult works.					
47	I am very patient about myself as well as others.					
48	I evaluate the rights and wrongs of my thoughts.					
49	Many things are done by me automatically.					
50	I became aware of my deeds later.					
51	I can cope up with my present life situations.					
52	I can't listen others with concentration.					
53	I consider failures are the lesson to learn the life deeply.					
54	I strongly believe that I can learn new things.					
55	I curse myself when I do wrong.					

**APPENDIX VII**  
**SELF COMPASSION SCALE**

**MALAYALAM (FINAL)**

FAROOK TRAINING COLLEGE, RESEARCH CENTRE IN EDUCATION

Dr. Hassan Koya M.P  
Assistant Professor  
Farook Training College

Shimimol P.S  
Research Scholar (JRF)  
Farook Training College

**Personal Information**

Name of the student :  
Name of the school :  
Type of school : Govt./Aided/Private  
Gender : Male/Female  
Locality : Rural /Urban  
Subject : HSE/VHSE

**നിർദ്ദേശങ്ങൾ:**

താഴെ കൊടുത്തിരിക്കുന്ന ഓരോ പ്രസ്താവനയും ശ്രദ്ധാപൂർവ്വം വായിക്കുക. ഓരോ പ്രസ്താവനക്കും 1. പൂർണ്ണമായും യോജിക്കുന്നു, 2. യോജിക്കുന്നു, 3. അഭിപ്രായമില്ല, 4. വിരോധിക്കുന്നു, 5. പൂർണ്ണമായും വിരോധിക്കുന്നു എന്നിങ്ങനെ അഞ്ചുവീതം പ്രതികരണങ്ങൾ കൊടുത്തിരിക്കുന്നു. ഓരോ പ്രസ്താവനയും നിങ്ങളെ സംബന്ധിച്ചിടത്തോളം എത്രമാത്രം ശരിയാണെന്ന് തീരുമാനിക്കുക. ആ പ്രതികരണം പ്രസ്താവനയുടെ നമ്പറിന് നേരെയുള്ള കോളത്തിൽ (✓) ചിഹ്നമിട്ട് രേഖപ്പെടുത്തുക. എല്ലാ പ്രസ്താവനകൾക്കും പ്രതികരണം രേഖപ്പെടുത്താൻ മറക്കരുത്.

ക്രമ നമ്പർ	പ്രസ്താവന	പൂർണ്ണമായും യോജിക്കുന്നു	യോജിക്കുന്നു	അഭിപ്രായമില്ല	വിരോധിക്കുന്നു	പൂർണ്ണമായും വിരോധിക്കുന്നു
1	പരീക്ഷയിൽ കുറഞ്ഞ മാർക്ക് ലഭിക്കുമ്പോൾ സ്വയംകുറ്റപ്പെടുത്തി കഴിവുകുറഞ്ഞവനാണെന്ന് ചിന്തിക്കാറുണ്ട്.					
2	മറ്റുള്ളവർ എന്നെ കുറ്റപ്പെടുത്തുമ്പോൾ അതിൽ നിരാശനാകാറില്ല.					

ക്രമ നമ്പർ	പ്രസ്താവന	പൂർണ്ണമായും യോജിക്കുന്നു	യോജിക്കുന്നു	അഭിപ്രായമില്ല	വിയോജിക്കുന്നു	പൂർണ്ണമായും വിയോജിക്കുന്നു
3	അമിതമായ മാനസിക വിഷമങ്ങൾ ഉണ്ടാകുമ്പോൾ സ്വയം കുറ്റപ്പെടുത്താറില്ല.					
4	പരിമിതമായ ജീവിത സാഹചര്യങ്ങളാണ് പഠനത്തെ പിന്നോക്കം നിർത്തുന്നത് എന്നോർത്ത് നിരാശനകാറുണ്ട്.					
5	അധ്യാപകരും സഹപാഠികളുമായി ആത്മബന്ധമില്ലാത്തതിൽ സ്വയം കുറ്റപ്പെടുത്താറുണ്ട്.					
6	പരിശ്രമിച്ചാൽ വിജയം കൈവരിക്കാൻ സാധിക്കുമെന്നവിശ്വാസമാണ് എന്നെ മുന്നോട്ട് നയിക്കുന്നത്.					
7	കടുത്ത പ്രതിസന്ധികളെ അഭിമുഖീകരിക്കേണ്ടി വരുമ്പോൾ സ്വയം പരിഗണനയും കരുതലും കാണിക്കാറുണ്ട്.					
8	പ്രതീക്ഷിച്ചതും ആഗ്രഹിച്ചതുമായ കാര്യങ്ങൾ ലഭിക്കാതെ വരുമ്പോൾ സ്വയം പുച്ഛം തോന്നാറുണ്ട്.					
9	പഠിച്ച കാര്യങ്ങൾ വേഗം വിധി ഓർത്തെടുക്കാൻ സാധിക്കാതെ വരുമ്പോൾ സങ്കടം തോന്നാറുണ്ട്.					
10	അധ്യാപകർ ചില സാഹചര്യങ്ങളിൽ അഭിനന്ദിക്കുമ്പോൾ പോലും എന്റെ കഴിവ് തിരിച്ചറിയാൻ എനിക്ക് സാധിക്കാറില്ല.					
11	എന്റെ തെറ്റുകൾ കണ്ടെത്തി ദുഃഖിതനാകാറുണ്ട്.					
12	മാതാപിതാക്കളുടെ പ്രതികരണത്തിൽ ഞാൻ വിഷമിക്കാറില്ല.					
13	എന്റെ പരിമിതികളെക്കുറിച്ചാലോചിച്ച് സങ്കടപ്പെടാറുണ്ട്.					
14	വേദനാജനകമായ സാഹചര്യങ്ങളിൽ ഞാൻ അതീവദുഃഖിതനാകാറുണ്ട്.					
15	തോൽവിയിൽ വിഷമിക്കാതെ അത് വിജയത്തിലേക്കുള്ള ചവിട്ടുപടിയായി കണക്കാക്കാറുണ്ട്.					

ക്രമ നമ്പർ	പ്രസ്താവന	പൂർണ്ണമായും യോജിക്കുന്നു	യോജിക്കുന്നു	അഭിപ്രായമില്ല	വിയോജിക്കുന്നു	പൂർണ്ണമായും വിയോജിക്കുന്നു
16	സുഹൃത്തുക്കൾ എന്നെ കളിയാക്കുമ്പോൾ എന്റെ കഴിവുകേടിനെ കുറ്റപ്പെടുത്താറുണ്ട്.					
17	പ്രതിസന്ധിഘട്ടങ്ങളിൽ സുഹൃത്തുക്കൾ എന്നെ സഹായിക്കാത്തത് എന്റെ തെറ്റ് കാരണമാണെന്ന് വിചാരിക്കാറുണ്ട്.					
18	മാനസിക വിഷമകൾ മനുഷ്യജീവിതം നേരിടേ താണെന്ന ബോധ്യത്തോടെ എന്റെ വിഷമങ്ങളിൽ ആത്മസംയമനം പാലിക്കാറുണ്ട്.					
19	അധ്യാപകർ തന്നെ മാത്രമാണ് കുറ്റപ്പെടുത്തുന്നത് എന്നോർത്ത് സങ്കടപ്പെടാറുണ്ട്.					
20	കഠിനമായി അധ്വാനിച്ചിട്ടും വിജയിക്കാൻ കഴിയാത്തത് എനിക്കുമാത്രമാണെന്നോർത്ത് വിഷമിക്കാറുണ്ട്.					
21	പഠനം ഏറ്റവും ബുദ്ധിമുട്ടായി തോന്നുന്നത് എനിക്ക് മാത്രമാണ് എന്ന് വിചാരിക്കാറുണ്ട്.					
22	ഞാൻ സങ്കടപ്പെട്ടിരിക്കുമ്പോൾ മറ്റുള്ളവരെല്ലാം സന്തോഷകരമായി ഇരിക്കുന്നതായി തോന്നാറുണ്ട്.					
23	എനിക്ക് പ്രധാനപ്പെട്ട ഒരു മോഖലയിൽ പരാജിതനാകുമ്പോൾ അതിൽ ഞാൻ ഏകനാണ് എന്ന് തോന്നാറുണ്ട്.					
24	മറ്റു കുട്ടികളുടെ മുൻപിൽ വെച്ച് അധ്യാപകർ വഴക്ക് പറയുമ്പോൾ ഞാൻ ഒറ്റപ്പെട്ടു പോകുന്നതായി തോന്നാറുണ്ട്.					
25	ഞാൻ മാത്രമാണ് ഈ ലോകത്ത് ഇത്രയധികം വിഷമങ്ങൾ അനുഭവിക്കുന്നത് എന്ന് തോന്നാറുണ്ട്.					
26	എന്റെ പരിമിതികളെക്കുറിച്ച് ചിന്തിക്കുമ്പോൾ ഞാൻ കൂടുതൽ ഒറ്റപ്പെട്ടതായി അനുഭവപ്പെടാറുണ്ട്.					
27	മാനസികമായി വിഷമങ്ങളുടേതാകുമ്പോൾ അതിൽ ഞാൻ ഏകനായിരിക്കാറുണ്ട്.					

ക്രമ നമ്പർ	പ്രസ്താവന	പൂർണ്ണമായും യോജിക്കുന്നു	യോജിക്കുന്നു	അഭിപ്രായമില്ല	വിയോജിക്കുന്നു	പൂർണ്ണമായും വിയോജിക്കുന്നു
28	എന്റെ പ്രശ്നങ്ങൾ കാരണം സുഹൃത്തുക്കളുടെ ഇടയിൽ ഞാൻ ഒറ്റപ്പെട്ടതായി തോന്നാറുണ്ട്.					
29	സന്ദർഭോചിതമായി പെരുമാറുന്നതിൽ ഞാൻ ശ്രദ്ധാലുവാൻ.					
30	വേദനാജനകമായ സംഭവങ്ങളെ യാഥാർത്ഥ്യബോധത്തോടെ കാണാൻ ശ്രമിക്കാറുണ്ട്.					
31	സുവദൂഷ്യങ്ങളിൽ മനസിനെ ഒരേ നിലയിൽ കൊടുപോകാൻ ശ്രമിക്കാറുണ്ട്.					
32	ഏത് സാഹചര്യങ്ങളുമായും പൊരുത്തപ്പെടാൻ എന്റെ മനസിനെ ഞാൻ പാകപ്പെടുത്തിയെടുക്കാറുണ്ട്.					
33	തോൽവിയെ അഭിമുഖീകരിക്കുമ്പോൾ മാനസികമായി വേദനിക്കാതിരിക്കാൻ ഞാൻ ശ്രമിക്കാറുണ്ട്.					
34	വ്യക്തിപരമായ പ്രശ്നങ്ങളെയോർത്ത് വ്യാകുലപ്പെടാതെയാണ് പഠനസംബന്ധമായ കാര്യങ്ങൾ കൈകാര്യം ചെയ്യുന്നത്.					
35	ചെയ്യുന്ന പ്രവർത്തനങ്ങളിൽ പൂർണ്ണ ശ്രദ്ധ കേന്ദ്രീകരിക്കാൻ എനിക്കെളുപ്പത്തിൽ സാധിക്കാറുണ്ട്.					
36	ഒരു പ്രത്യേക സാഹചര്യത്തിൽ ഞാനെടുത്ത തീരുമാനങ്ങളെ മറ്റുള്ളവരോട് വിശദമാക്കാൻ സാധിക്കാറുണ്ട്.					
37	എന്റെ ശ്രദ്ധ പെട്ടെന്ന് വ്യതിചലിക്കാറുണ്ട്.					
38	ബുദ്ധിമുട്ടുള്ള സാഹചര്യങ്ങളിൽ ഞാൻ ആലോചിച്ചതിനു ശേഷമേ പ്രതികരിക്കാറുള്ളൂ.					
39	പ്രയാസമേറിയ പ്രവർത്തനങ്ങൾ ചെയ്യുമ്പോൾ പോലും മാനസികമായ ഒരു സംതൃപ്തി കൈവരാറുണ്ട്.					
40	എന്റെ ചിന്തകളിലെ ശരിയും തെറ്റും ഞാൻ വിലയിരുത്താറുണ്ട്.					
41	യാത്രികമായാണ് ഞാൻ പല കാര്യങ്ങളും ചെയ്യാറുള്ളത്.					

ക്രമ നമ്പർ	പ്രസ്താവന	പൂർണ്ണമായും യോജിക്കുന്നു	യോജിക്കുന്നു	അഭിപ്രായമില്ല	വിയോജിക്കുന്നു	പൂർണ്ണമായും വിയോജിക്കുന്നു
42	ഞാൻ ചെയ്തതെന്താണെന്ന് പിന്നീടെപ്പോഴെങ്കിലുമാണ് തിരിച്ചറിയാറുള്ളത്.					
43	എന്റെ ഇപ്പോഴത്തെ ജീവിത സാഹചര്യവുമായി പൊരുത്തപ്പെട്ടുപോകാൻ എനിക്ക് സാധിക്കുന്നു .					
44	മറ്റുള്ളവർ പറയുന്നത് ശ്രദ്ധയോടെ കേട്ടിരിക്കാൻ എനിക്ക് സാധിക്കാറില്ല.					
45	തോൽവികൾ ജീവിതത്തെ കൂടുതൽ മനസ്സിലാക്കാനുള്ള പാഠങ്ങളായി ഞാൻ കാണാറുണ്ട് .					
46	പുതിയ കാര്യങ്ങൾ പഠിക്കാൻ എനിക്ക് കഴിയുമെന്ന് ഞാൻ ഉറച്ച് വിശ്വസിക്കാറുണ്ട് .					
47	തെറ്റുപറ്റിയാൽ 'ഞാൻ എപ്പോഴും ഇങ്ങനെയാ' എന്നൊരിക്കൽക്കൂടി പറഞ്ഞുറപ്പിക്കാറുണ്ട് .					



**APPENDIX VIII****SELF COMPASSION SCALE****ENGLISH (FINAL)****FAROOK TRAINING COLLEGE, RESEARCH CENTRE IN  
EDUCATION**

Dr. Hassan Koya M.P  
Assistant Professor  
Farook Training College

Shimimol P.S  
Research Scholar (JRF)  
Farook Training College

**Personal Information**

Name of Student :  
Name of School :  
Type of School :Govt/Aided/Private  
Gender :Male/Female  
Locality :Rural/Urban  
Subject :HSE/VHSE

**Instructions:**

Read the following statements carefully. For each statements five responses- Strongly agree (SA), Agree (A), No opinion (NO), disagree (D), Strongly disagree (SD) were given. How far each statement is right about you. Mark your response by putting tick mark in the column provided. Please don't forget to mark your response for all statements.

<b>Item No.</b>	<b>Statements</b>	<b>SA</b>	<b>A</b>	<b>N.O</b>	<b>D</b>	<b>SD</b>
1	I blame myself when I get low score in exams.					
2	I never be disappoint when others blame on me.					
3	I never blame myself when I have high mental pressure.					
4	I became frustrate by thinking that limited life situations are the reason for educational backwardness.					

<b>Item No.</b>	<b>Statements</b>	<b>SA</b>	<b>A</b>	<b>N.O</b>	<b>D</b>	<b>SD</b>
5.	I blame myself for my failure to create an intimate relationships with teachers and friends.					
6	The belief practice helps to attain great achievements lead my life forwards.					
7	I shows self consideration and care when I want to face difficult problems or situations.					
8	I condemn myself when I failed to get expected things.					
9	It makes me unhappy when I failed to remember learned things or lessons.					
10	I can't realize my abilities even when my teachers congratulate me on my success.					
11	I feel desperate on my wrong doings.					
12	I never feel unhappy on the response of my parents.					
13	I feel unhappy by thinking about my limitations.					
14	I feel too much sadness in painful situations.					
15	I see failure as a stepping stone to success.					
16	I blame myself on my limitations when friends mocks me.					
17	I believe that the errors from the part of myself are the reason for the unwillingness of my friends to help me in difficult situations.					
18	I try to be self controlled in my problems with a view that problems are the part of human life.					
19	I feel sad by thinking that teachers blame only me.					

<b>Item No.</b>	<b>Statements</b>	<b>SA</b>	<b>A</b>	<b>N.O</b>	<b>D</b>	<b>SD</b>
20	I feel unhappy by thinking that I am the only person who could not achieve success even though hard worked a lot or practiced a lot.					
21	I think that I am the only person who fail difficulty in learning.					
22	I feel that others are happy when I am unhappy.					
23	I feel alone when I fail in my important or favorite field.					
24	I feel alone when teachers scold me in front of other students.					
25	I used to think that I am the only person who have a lot of problems.					
26	I feel too much loneliness when thinking about my limitations.					
27	I sit alone when I have problems or mental difficulties.					
28	When I am with my friends I feel alone because of my problems.					
29	I am very careful to behave according to different situations.					
30	I try to be realistic on painful situations.					
31	I try to balance happiness and unhappiness					
32	I train my mind to cope up with different life situations.					
33	I try to keep my mind away from pain when I face failure.					
34	I handle educational matters by imparting it from my personnel problems.					
35	I can easily concentrate on the works that I do.					
36	I can justify my decisions to others that I took in a particular situation.					
37	It is very easy to distract my concentration.					

<b>Item No.</b>	<b>Statements</b>	<b>SA</b>	<b>A</b>	<b>N.O</b>	<b>D</b>	<b>SD</b>
38	In difficult situations I respond my thinking about it a lot.					
39	I get mental satisfaction even though from difficult works.					
40	I evaluate the rights and wrongs of my thoughts.					
41	Many things are done by me automatically.					
42	I became aware of my deeds later.					
43	I can cope up with my present life situations.					
44	I can't listen others with concentration.					
45	I consider failures are the lesson to learn the life deeply.					
46	I strongly believe that I can learn new things.					
47	I curse myself when I do wrong.					

**APPENDIX IX  
ACADEMIC PROCRASTINATION SCALE**

**MALAYALAM (DRAFT)**

FAROOK TRAINING COLLEGE, RESEARCH CENTRE IN EDUCATION

Dr. Hassan Koya M.P  
Assistant Professor  
Farook Training College

Shimimol P.S  
Research Scholar (JRF)  
Farook Training College

**Personal Information**

Name of the student :  
 Name of the school :  
 Type of school : Govt./Aided/Private  
 Gender : Male/Female  
 Locality : Rural /Urban  
 Subject : HSE/VHSE

**നിർദ്ദേശങ്ങൾ:**

താഴെ കൊടുത്തിരിക്കുന്ന ഓരോ പ്രസ്താവനയും ശ്രദ്ധാപൂർവ്വം വായിക്കുക. ഓരോ പ്രസ്താവനക്കും 1. പൂർണ്ണമായും യോജിക്കുന്നു, 2. യോജിക്കുന്നു, 3. അഭിപ്രായമില്ല, 4. വിരോധിക്കുന്നു, 5. പൂർണ്ണമായും വിരോധിക്കുന്നു എന്നിങ്ങനെ അഞ്ചുവീതം പ്രതികരണങ്ങൾ കൊടുത്തിരിക്കുന്നു. ഓരോ പ്രസ്താവനയും നിങ്ങളെ സംബന്ധിച്ചിടത്തോളം എത്രമാത്രം ശരിയാണെന്ന് തീരുമാനിക്കുക. ആ പ്രതികരണം പ്രസ്താവനയുടെ നമ്പറിന് നേരെയുള്ള കോളത്തിൽ (✓) ചിഹ്നമിട്ട് രേഖപ്പെടുത്തുക. എല്ലാ പ്രസ്താവനകൾക്കും പ്രതികരണം രേഖപ്പെടുത്താൻ മറക്കരുത്.

ക്രമ നമ്പർ	പ്രസ്താവന	പൂർണ്ണമായും യോജിക്കുന്നു	യോജിക്കുന്നു	അഭിപ്രായമില്ല	വിരോധിക്കുന്നു	പൂർണ്ണമായും വിരോധിക്കുന്നു
1	പരീക്ഷയ്ക്ക് ഞാൻ എഴുതിയ ഉത്തരങ്ങൾ ശരിയാകുമോ എന്ന ഭയം ഉണ്ടാകാറുണ്ട്					
2	പരീക്ഷയ്ക്ക് തൊട്ടു മുൻപുള്ള ദിവസങ്ങളിൽ കൂടുതൽ ചിട്ടയോടും ആത്മവിശ്വാസത്തോടും പഠനം തുടരാൻ എനിക്ക് സാധിക്കാറുണ്ട്					

ക്രമ നമ്പർ	പ്രസ്താവന	പൂർണ്ണമായും യോജിക്കുന്നു	യോജിക്കുന്നു	അഭിപ്രായമില്ല	വിയോജിക്കുന്നു	പൂർണ്ണമായും വിയോജിക്കുന്നു
3	പരീക്ഷയോടടുത്ത ദിവസങ്ങളിൽ ആടുത്ത ടോ-ലെ പരീക്ഷയ്ക്ക് ചിട്ടയോടെ പഠിക്കാമെന്ന തീരുമാനത്തിലെത്താറു					
4	പരീക്ഷയ്ക്ക് ശേഷം കൂടുതൽ ആത്മവിശ്വാസത്തോടെ തുടർ പഠനത്തിൽ ഏർപ്പെടാറു					
5	എന്റെ ഉത്തരങ്ങൾ വായിക്കുന്ന അധ്യാപകർ തന്നെക്കുറിച്ച് എന്ത് വിചാരിക്കുമെന്ന ആശങ്കയാൽ ഉത്തരമെഴുതാതിരിക്കാറു					
6	പരീക്ഷാവശ്യമായ എല്ലാ പാഠഭാഗങ്ങളും പഠിച്ചു തീർത്തു എന്ന ആത്മവിശ്വാസത്തോടെയാണ് പരീക്ഷ എഴുതാറുള്ളത്.					
7	പഠനസമയത്ത് ചില പാഠഭാഗങ്ങൾ പരീക്ഷയ്ക്ക് വരില്ല എന്ന മുൻധാരണയോടെ ഒഴിവാക്കാറു					
8	അധ്യാപകർ ചോദ്യങ്ങൾ ചോദിക്കുമ്പോൾ ആത്മവിശ്വാസത്തോടെ അതിനെ നേരിടാൻ എനിക്ക് സാധിക്കാറു					
9	പരീക്ഷയ്ക്ക് വേറിയുള്ള പഠനം പൂർണ്ണമായി എന്നു തോന്നിയാൽ വേഗം പരീക്ഷ ആരംഭിക്കണമെന്ന് ആഗ്രഹിക്കാറു					
10	എന്റെ പ്രവർത്തനങ്ങൾ മറ്റുള്ളവരുടേതുമായി താരതമ്യം ചെയ്ത് വിലയിരുത്താറു					
11	മറ്റുള്ളവരുടെ അഭിപ്രായങ്ങൾ എന്റെ പ്രവർത്തനങ്ങളെ സ്വാധീനിക്കാറില്ല					
12	പ്രൊജക്ടുകൾ കൃത്യതയോടെ വിജയകരമായി പൂർത്തിയാക്കിയാൽ മാത്രമേ അധ്യാപകരെ ഏൽപ്പിക്കാറുള്ളൂ.					
13	വളരെ നിസ്സാരമായ പഠനപ്രവർത്തനങ്ങൾ പോലും മികവുറ്റതാക്കാൻ സമയം കൂടുതൽ ചിലവഴിക്കാറു					
14	ഞാൻ ചെയ്യുന്ന വർക്കുകൾ മറ്റുള്ളവർ നോക്കി വിലയിരുത്തണമെന്ന് ആഗ്രഹിക്കാറില്ല					
15	പ്രൊജക്ട് അസൈൻമെന്റ് തുടങ്ങിയവയുടെയൊക്കെ പരിപൂർണ്ണതയ്ക്കായി അവസാന നിമിഷത്തേക്ക് നീക്കി വെയ്ക്കാറില്ല					

ക്രമ നമ്പർ	പ്രസ്താവന	പുറംതൊഴിലാളികൾ	പുറംതൊഴിലാളികൾ	അഭിപ്രായമില്ല	വിവരങ്ങൾ	പുറംതൊഴിലാളികൾ
16	ചെയ്തുകൊടുക്കുന്ന വർക്കുകൾ ഒരുപാട് തവണ നോക്കി വിലയിരുത്താറുണ്ട്					
17	പ്രവർത്തനങ്ങൾ പൂർത്തീകരിച്ചതിനു ശേഷം കൂടുതൽ നന്നാക്കാമായിരുന്നു എന്ന തോന്നൽ മൂലം അതേ പ്രവർത്തനങ്ങൾ പുനരാരംഭിക്കാറുണ്ട്					
18	പഠനാവശ്യത്തിനായി സമയത്തെ കൃത്യതയോടെ ക്രമീകരിക്കാൻ എനിക്ക് സാധിക്കാറുണ്ട്					
19	പഠനത്തിനായി നീക്കി വെച്ച സമയത്ത് വിനോദങ്ങളിൽ മുഴുകാറുണ്ട്					
20	ദിവസവും എല്ലാ വിഷയങ്ങൾക്കും പഠനത്തിനാവശ്യമായ നിശ്ചിത സമയം നീക്കി വെയ്ക്കാറുണ്ട്					
21	ലാബ്, ലൈബ്രറി തുടങ്ങിയ സ്ഥലങ്ങളിൽ കൃത്യസമയത്ത് എത്തിച്ചേരാൻ സാധിക്കാത്തതിനാൽ പ്രവർത്തനങ്ങൾ പൂർത്തീകരിക്കാൻ സാധിക്കാറില്ല					
22	ടിവി കൂടെയും പാട്ടു കേട്ടു കൊണ്ടും പഠനത്തിൽ ഏർപ്പെടാറുണ്ട്					
23	സമയാനുസൃതം ഉത്തരങ്ങൾ എഴുതാൻ സാധിക്കാറുള്ളതു കൊണ്ട് നിശ്ചിത സമയത്തിനുള്ളിൽ പരീക്ഷ എഴുതിക്കഴിയാറുണ്ട്					
24	അധ്യാപകരോടുള്ള മാനസികമായ അടുപ്പക്കുറവ് കാരണം അവരുടെ വിഷയങ്ങൾ ഞാൻ അൽപസമയം മാത്രം നോക്കി നിർത്താറുണ്ട്					
25	സമയബന്ധിതമായി പ്രൊജക്ട്, അസൈൻമെന്റ് തുടങ്ങിയ കാര്യങ്ങൾ തീർക്കാറുണ്ട്					
26	പഠനത്തിൽ നിരന്തരമായി സഹപാഠികളുടെ സഹായം തേടാറുണ്ട്					
27	മറ്റുള്ളവരെ ആശ്രയിക്കാതെ തീരുമാനങ്ങൾ എടുക്കാൻ എനിക്ക് സാധിക്കും					
28	എന്റെ പഠനപ്രവർത്തനങ്ങൾ മറ്റുള്ളവരുടെ സഹായമില്ലാതെ ചെയ്തു തീർക്കാൻ സാധിക്കാറില്ല					
29	തനിച്ചിരുന്ന് പഠിക്കാനും പഠനപ്രവർത്തനങ്ങളിൽ മുഴുകാനും എനിക്ക് സാധിക്കും					
30	പഠനവുമായി ബന്ധപ്പെട്ട പ്രശ്നങ്ങൾ പരിഹരിക്കാൻ സുഹൃത്തുക്കളുടെ സഹായം ആവശ്യപ്പെടാറുണ്ട്					

ക്രമ നമ്പർ	പ്രസ്താവന	പൂർണ്ണമായും യോജിക്കുന്നു	യോജിക്കുന്നു	അഭിപ്രായമില്ല	വിയോജിക്കുന്നു	പൂർണ്ണമായും വിയോജിക്കുന്നു
31	ഏത് പഠനരീതി തിരഞ്ഞെടുക്കുന്നതാണ് അഭി കാമ്യം എന്ന് സ്വയം തീരുമാനമെടുക്കാൻ എനിക്ക് സാധിക്കാറു					
32	സ്വന്തമായി ചെയ്യാൻ സാധിക്കുന്ന കാര്യത്തിലും മറ്റുള്ളവരുടെ സഹായം തേടാറു					
33	അധ്യാപകരുടെ ഉപദേശമില്ലാതെ പഠനപ്രവർത്തനങ്ങൾ പൂർത്തീകരിക്കാൻ എനിക്ക് സാധിക്കാറു					
34	തനിച്ചു ചെയ്യുന്ന കാര്യങ്ങൾ ശരിയാകുമെന്ന ആത്മ വിശ്വാസം എനിക്കു					
35	ഏൽപ്പിക്കുന്ന പ്രവർത്തനങ്ങളിൽ നിന്ന് ഒഴിഞ്ഞുമാറാറു					
36	സുഹൃത്തുക്കളുടെയും അധ്യാപകരുടെയും മുന്നിൽ ആത്മവിശ്വാസത്തോടെ കാര്യങ്ങൾ അവതരിപ്പിക്കാൻ എനിക്ക് കഴിയും					
37	എന്റെ പ്രവർത്തനങ്ങളെ മറ്റുള്ളവർ കുറ്റപ്പെടുത്തുമെന്ന ചിന്ത അതു പൂർത്തീകരിക്കാൻ സാധിക്കാത്ത അവസ്ഥയിൽ എത്തിക്കാറു					
38	വിജയിക്കാൻ സാധിക്കുമെന്ന പൂർണ്ണ വിശ്വാസമുള്ളതിനാൽ പരിപാടികളുടെ നേതൃത്വം ഏറ്റെടുക്കാറു					
39	സുഹൃത്തുക്കളോട് വിജയിക്കാൻ കഴിയില്ല എന്ന മുൻ ധാരണയാൽ മത്സരങ്ങളിലൊന്നും പങ്കെടുക്കാറില്ല					
40	ക്ലാസ്സിലെ ഗ്രൂപ്പ് വർക്കിൽ നേതൃസ്ഥാനത്തേക്ക് വരാൻ എനിക്ക് കഴിയാറു					
41	കലാ- കായിക മത്സരങ്ങളിൽ തോൽക്കുമോ എന്ന ചിന്ത ഒരിക്കലും അതിൽ പങ്കെടുക്കുന്നതിൽ നിന്ന് എന്നെ പിന്തിരിപ്പിക്കാറില്ല					
42	കമ്പ്യൂട്ടറിൽ പഠിക്കാനുള്ള വസ്തുക്കൾ തിരയുമ്പോൾ ഗയിം കളിക്കാറു					
43	ഹോം വർക്കുകൾ ഞാൻ കൃത്യതയോടെ ചെയ്തു തീർക്കാറു					
44	പഠനത്തോട് മടുപ്പ് അനുഭവപ്പെടുമ്പോൾ അസുഖം നടിച്ചു കിടക്കാറു					
45	അസൈൻമെന്റിനും സെമിനാറിനും വേറില്ലെ ബ്രിയിൽ പോയി വിവരങ്ങൾ ശേഖരിക്കാറു					
46	അധ്യാപകർ ക്ലാസ്സെടുക്കുമ്പോൾ ശ്രദ്ധിക്കാതെ ക്ലാസ്സിലിരുന്ന് ഉറങ്ങാറു					



ക്രമ നമ്പർ	പ്രസ്താവന	പൂർണ്ണമായും യോജിക്കുന്നു	യോജിക്കുന്നു	അഭിപ്രായമില്ല	വിയോജിക്കുന്നു	പൂർണ്ണമായും വിയോജിക്കുന്നു
47	സുഹൃത്തുക്കൾ വിനോദങ്ങളിൽ ഏർപ്പെടുമ്പോൾ പോലും ഞാൻ പഠനത്തിൽ ശ്രദ്ധ കേന്ദ്രീകരിക്കാറു					
48	അധ്യാപകർ നൽകുന്ന പ്രവർത്തനങ്ങൾ സുഹൃത്തുക്കളിൽ നിന്നും പകർത്തി എഴുതാറു					
49	എന്റെ പ്രൊജക്ട് അസൈൻമെന്റ് തുടങ്ങിയവയൊന്നും ഞാൻ മറ്റുള്ളവരെക്കാൾ എഴുതിപ്പിടാറില്ല					
50	പരീക്ഷയ്ക്ക് ശേഷം അറിയാവുന്ന ഉത്തരങ്ങൾ എഴുതാത്തതിൽ ഖേദം തോന്നാറു					
51	കിട്ടേ ആനുകൂല്യം കിട്ടിയില്ലെങ്കിൽ ഞാൻ അത് ചോദിച്ചു വാങ്ങാറു					
52	ക്ലാസ്സിൽ പാഠഭാഗങ്ങളുമായി ബന്ധപ്പെട്ടു വരുന്ന സംശയങ്ങൾ ചോദിക്കാൻ എനിക്ക് സാധിക്കാറില്ല					
53	പ്രശ്നങ്ങളോട് കൃത്യസമയത്ത് വ്യക്തമായ രീതിയിൽ പ്രതികരിക്കാൻ എനിക്ക് സാധിക്കാറു					
54	തെറ്റായ പ്രവൃത്തികൾ ചെയ്തതിനു ശേഷം അതിനെക്കുറിച്ചുചോർത്ത് വിഷമം തോന്നാറു					
55	എന്റെ ആശയങ്ങൾ ശരിയായ രീതിയിൽ പ്രകടിപ്പിക്കാൻ സാധിക്കാറു					
56	അറിയുന്ന ഉത്തരങ്ങൾ പോലും അധ്യാപകർ ചോദ്യങ്ങൾ ചോദിക്കുന്ന സമയത്ത് പറയാൻ സാധിക്കാറില്ല					
57	പരീക്ഷ കഴിഞ്ഞതിനു ശേഷം ശരിയായ ഉത്തരങ്ങൾ മനസ്സിലേക്ക് കടന്നു വരാറു					
58	സൗഹൃദ സംഭാഷണങ്ങളിൽ ഏർപ്പെടുമ്പോൾ പഠിക്കാനുള്ള സമയം പോകുന്നത് അറിയാറില്ല					
59	സഹപാഠികളുമൊത്ത് കളിക്കാൻ കിട്ടുന്ന സമയങ്ങളിൽ പഠിക്കാൻ പഠിക്കാൻ പറയുന്നത് എനിക്കിഷ്ടമല്ല					
60	നന്നായി പഠിക്കുന്ന കുട്ടികളെ സുഹൃത്തുക്കളാക്കുന്നതിനോടാണ് എനിക്ക് താൽപര്യം					
61	പരീക്ഷയ്ക്കു പഠിക്കാനുള്ള അവധി ദിനങ്ങളിൽ പോലും സുഹൃത്തുക്കളുമൊത്ത് യാത്ര പോകാറു					
62	സുഹൃത്തുക്കൾക്ക് നല്ല മാർക്ക് ലഭിക്കുമ്പോൾ എന്റെ പഠനം ഒന്നു കൂടി മികവുറ്റതാക്കാൻ ശ്രമിക്കാറു					

ക്രമ നമ്പർ	പ്രസ്താവന	പൂർണ്ണമായും യോജിക്കുന്നു	യോജിക്കുന്നു	അഭിപ്രായമില്ല	വിയോജിക്കുന്നു	പൂർണ്ണമായും വിയോജിക്കുന്നു
63	പഠന സമയത്ത് സുഹൃത്തുക്കളുടെ സാന്നിധ്യം വലിയ ശല്യമായി എനിക്ക് തോന്നാറു					
64	കമ്പൈൻഡ് സ്റ്റഡിയിലൂടെയാണ് എനിക്ക് നല്ല മാർക്ക് വാങ്ങാൻ സാധിച്ചിട്ടുള്ളത്					
65	പഠന പ്രവർത്തനങ്ങൾ മാറ്റി വെച്ചിട്ടാണെങ്കിലും സുഹൃത്തുക്കളുമായി ചിലവഴിക്കാൻ കിട്ടുന്ന സമയം ഞാൻ പാഴാക്കാറില്ല					

**APPENDIX X****ACADEMIC PROCRASTINATION SCALE****ENGLISH (DRAFT)****FAROOK TRAINING COLLEGE , RESEARCH CENTRE IN EDUCATION**

Dr. Hassan Koya M.P  
Assistant Professor  
Farook Training College

Shimimol P.S  
Research Scholar (JRF)  
Farook Training College

**Personal Information**

Name of Student :  
Name of School :  
Type of School :Govt/Aided/Private  
Gender :Male/Female  
Locality :Rural/Urban  
Subject :HSE/VHSE

**Instructions:**

Read the following statements carefully. For each statements five responses- Strongly agree (SA), Agree (A), No opinion (NO), disagree (D), Strongly disagree (SD) were given. How far each statement is right about you. Mark your response by putting tick mark in the column provided. Please don't forget to mark your response for all statements.

Item no.	Statements	SA	A	N.O	D	SD
1.	I fear whether the answers I wrote in the examination are write.					
2.	On the eve of examination I can study systematically with confidence.					
3.	On the occasion of examination I decide to study well to the next exam.					
4.	I continue study even after examination with confidence.					

Item no.	Statements	SA	A	N.O	D	SD
5.	Feeling what teachers think about my answers to the questions.					
6.	I write exam making sure that I covered all the areas for examination.					
7.	I neglect some areas thinking that they won't ask for examination.					
8.	When teachers ask questions I answer with confidence.					
9.	When I feel I have completed the portions for examination, I wish the exam could be earlier.					
10.	I evaluate my works by comparing with others.					
11	Others opinion don't affect my works.					
12	I submit my project with perfection.					
13	I don't like others to evaluate my work.					
14	I spend more time even for easy learning tasks.					
15	I don't postpone project and assignments till the last date.					
16	I evaluate my works frequently.					
17	I repeat the same things for better feelings it could have been better after completion of it.					
18	I manage learning time well					
19	I involve in entertainment during learning.					
20	I allotted fixed time per day for each subjects.					
21	I often can't complete my task because I reach in lab and library late.					

<b>Item no.</b>	<b>Statements</b>	<b>SA</b>	<b>A</b>	<b>N.O</b>	<b>D</b>	<b>SD</b>
22	I learn by watching TV and listening to music.					
23	I can manage time while writing exam so I complete it on time.					
24	I spend less time for those subjects I don't like.					
25	I complete projects and assignments on time.					
26	I continuously seek the help of my friends in learning.					
27	I take decisions independently.					
28	I cannot complete my learning task without others help.					
29	I alone can study.					
30	I seek my friends help to solve problems. I face in learning.					
31	I can decide which learning style is suited to me.					
32	I seek others help in which I can do it alone.					
33	I can complete my learning task without teachers direction.					
34	I am confident that thinks I do alone will success.					
35	I excuse from works assign to me.					
36	I can present thinks confidently in front of friends and teachers.					
37	The thought others criticize my works I can't complete it.					
38	Since I am confident about victory I take the leadership of programmes.					

Item no.	Statements	SA	A	N.O	D	SD
39	With the prejudices that I can't win over my friends I don't participate in completion.					
40	I take the leadership of group work.					
41	Fear of failure don't pull me back from participating extra curricular activities.					
42	I play game while searching for study material in computer.					
43	I complete my home assignments on time.					
44	When I feel lazy I pretend to be ill.					
45	I use library for the purpose of assignments and seminar.					
46	I have the habit of sleeping in class in which I am not interested.					
47	I concentrate on studies even when my friends indulge in entertainments.					
48	I copy assignments from my friends.					
49	I don't assign my project and other tasks to others.					
50	I feel worried when I couldn't answer the questions that I know.					
51	I ask for my privilege if it is denied.					
52	I can't clarity my doubts during class.					
53	I can respond to problems on time.					
54	I feel worry after doing wrong.					
55	I can express my ideas well.					
56	I can't answer to the questions even for those I know.					
57	I come to the write answer after completion of examination.					

<b>Item no.</b>	<b>Statements</b>	<b>SA</b>	<b>A</b>	<b>N.O</b>	<b>D</b>	<b>SD</b>
58	I don't aware that friendly talks steal learning time.					
59	I don't like saying to study when playing with friends.					
60	I am interested to have friends with those who study well.					
61	I like to have tour during study leaves.					
62	I try to learn better when my friends secure good marks.					
63	While learning presence of my friends irritates me.					
64	Combined study helps me to secure good marks.					
65	I found time to have friend even by postponement of learning.					

**APPENDIX XI**

**ACADEMIC PROCRASTINATION SCALE  
MALAYALAM (FINAL)**

FAROOK TRAINING COLLEGE, RESEARCH CENTRE IN EDUCATION

Dr. Hassan Koya M.P  
Assistant Professor  
Farook Training College

Shimimol P.S  
Research Scholar (JRF)  
Farook Training College

**Personal Information**

Name of the student :  
Name of the school :  
Type of school : Govt./Aided/Private  
Gender : Male/Female  
Locality : Rural /Urban  
Subject : HSE/VHSE

**നിർദ്ദേശങ്ങൾ:**

താഴെ കൊടുത്തിരിക്കുന്ന ഓരോ പ്രസ്താവനയും ശ്രദ്ധാപൂർവ്വം വായിക്കുക. ഓരോ പ്രസ്താവനക്കും 1. പൂർണ്ണമായും യോജിക്കുന്നു, 2. യോജിക്കുന്നു, 3. അഭിപ്രായമില്ല, 4. വിധേയമാകുന്നു, 5. പൂർണ്ണമായും വിധേയമാകുന്നു എന്നിങ്ങനെ അഞ്ചുവീതം പ്രതികരണങ്ങൾ കൊടുത്തിരിക്കുന്നു. ഓരോ പ്രസ്താവനയും നിങ്ങളുടെ സംബന്ധിച്ചിടത്തോളം എത്രമാത്രം ശരിയാണെന്ന് തീരുമാനിക്കുക. ആ പ്രതികരണം പ്രസ്താവനയുടെ നമ്പറിന് നേരെയുള്ള കോളത്തിൽ (✓) ചിഹ്നമിട്ട് രേഖപ്പെടുത്തുക. എല്ലാ പ്രസ്താവനകൾക്കും പ്രതികരണം രേഖപ്പെടുത്താൻ മറക്കരുത്.

കമനമ്പർ	പ്രസ്താവന	പൂർണ്ണമായും യോജിക്കുന്നു	യോജിക്കുന്നു	അഭിപ്രായമില്ല	വിധേയമാകുന്നു	പൂർണ്ണമായും വിധേയമാകുന്നു
1	പരീക്ഷയ്ക്ക് ഞാൻ എഴുതിയ ഉത്തരങ്ങൾ ശരിയാകുമോ എന്ന ഭയം ഉണ്ടാകാറുണ്ട്.					
2	പരീക്ഷയ്ക്ക് തൊട്ടു മുൻപുള്ള ദിവസങ്ങളിൽ കൂടുതൽ ചിട്ടയോടും ആത്മവിശ്വാസത്തോടും പഠനം തുടരാൻ എനിക്ക് സാധിക്കാറുണ്ട്.					
3	പരീക്ഷയ്ക്ക് ശേഷം കൂടുതൽ ആത്മവിശ്വാസത്തോടെ തുടർ പഠനത്തിൽ ഏർപ്പെടാറുണ്ട്.					
4	എന്റെ ഉത്തരങ്ങൾ വായിക്കുന്ന അധ്യാപകർ തന്നെക്കുറിച്ച് എന്ത് വിചാരിക്കുമെന്ന ആശങ്കയാൽ ഉത്തരമെഴുതാതിരിക്കാറുണ്ട്.					



കമ നമ്പർ	പ്രസ്താവന	പൂർണ്ണമായും യാജിക്കുന്നു	യോജിക്കുന്നു	അഭിപ്രായമില്ല	വിയോജിക്കുന്നു	പൂർണ്ണമായും വിയോജിക്കുന്നു
5	പരീയ്ക്കാവശ്യമായ എല്ലാ പാഠഭാഗങ്ങളും പഠിച്ചു തീർത്തു എന്ന ആത്മവിശ്വാസത്തോടെയാണ് പരീ ക്ഷ എഴുതാനുള്ളത്.					
6	പഠനസമയത്ത് ചില പാഠഭാഗങ്ങൾ പരീക്ഷയ്ക്ക് വ രീല്ല എന്ന മുൻധാരണയോടെ ഒഴിവാക്കാറു ു.					
7	അധ്യാപകർ ചോദ്യങ്ങൾ ചോദിക്കുമ്പോൾ ആത്മ വിശ്വാസത്തോടെ അതിനെ നേരിടാൻ എനിക്ക് സാ ധിക്കാറു ു					
8	എന്റെ പ്രവർത്തനങ്ങൾ മറ്റുള്ളവരുടേതുമായി താ രതമ്യം ചെയ്ത് വിലയിരുത്താറു ു					
9	മറ്റുള്ളവരുടെ അഭിപ്രായങ്ങൾ എന്റെ പ്രവർത്ത നങ്ങളെ സ്വാധീനിക്കാറില്ല					
10	പ്രൊജക്ടുകൾ കൃത്യതയോടെ വിജയകരമായി പൂർ ത്തിയാക്കിയാൽ മാത്രമേ അധ്യാപകരെ ഏൽപ്പി കാറുള്ളൂ.					
11	വളരെ നിസ്സാരമായ പഠനപ്രവർത്തനങ്ങൾ പോലും മികവുറ്റതാക്കാൻ സമയം കൂടുതൽ ചിലവഴിക്കാ റു ു					
12	പ്രൊജക്ട് അസൈൻമെന്റ് തുടങ്ങിയവയുടെയൊ ക്കെ പരിപൂർണ്ണതയ്ക്കായി അവസാന നിമിഷത്തേ ക്ക് നീക്കി വെയ്ക്കാറില്ല					
13	ചെയ്തുകൊ ിരിക്കുന്ന വർക്കുകൾ ഒരുപാട് ത വണ നോക്കി വിലയിരുത്താറു ു					
14	പ്രവർത്തനങ്ങൾ പൂർത്തീകരിച്ചതിനു ശേഷം കൂടു തൽ നന്നാക്കുമായിരുന്നു എന്ന തോന്നൽ മൂലം അതേ പ്രവർത്തനങ്ങൾ പുനരാരംഭിക്കാറു ു					
15	പഠനാവശ്യത്തിനായി സമയത്തെ കൃത്യതയോടെ ക്രമീകരിക്കാൻ എനിക്ക് സാധിക്കാറു ു					
16	പഠനത്തിനായി നീക്കി വെച്ച സമയത്ത് വിനോദങ്ങ ലിൽ മുഴുകാറു ു					
17	ദിവസവും എല്ലാ വിഷയങ്ങൾക്കും പഠനത്തിനാവ ശ്യമായ നിശ്ചിത സമയം നീക്കി വെയ്ക്കാറു ു					
18	ലാബ്, ലൈബ്രറി തുടങ്ങിയ സ്ഥലങ്ങളിൽ കൃത്യസ മയത്ത് എത്തിച്ചേരാൻ സാധിക്കാത്തതിനാൽ പ്ര വർത്തനങ്ങൾ പൂർത്തീകരിക്കാൻ സാധിക്കാറില്ല					
19	ടിവി ക ുകൊ ും പാട്ടു കേട്ടു കൊ ും പഠന ത്തിൽ ഏർപ്പെടാറു ു					

കമ നമ്പർ	പ്രസ്താവന	പൂർണ്ണമായും യാജിക്കുന്നു	യോജിക്കുന്നു	അഭിപ്രായമില്ല	വിയോജിക്കുന്നു	പൂർണ്ണമായും വിയോജിക്കുന്നു
20	സമയാനുസൃതം ഉത്തരങ്ങൾ എഴുതാൻ സാധിക്കാറുള്ളതു കൊണ്ട് നിശ്ചിത സമയത്തിനുള്ളിൽ പരീക്ഷ എഴുതിക്കഴിയാറുണ്ട്					
21	അധ്യാപകരോടുള്ള മാനസികമായ അടുപ്പക്കുറവ് കാരണം അവരുടെ വിഷയങ്ങൾ ഞാൻ അൽപസമയം മാത്രം നോക്കി നിർത്താറുണ്ട്					
22	സമയബന്ധിതമായി പ്രോജക്ട്, അസൈൻമെന്റ് തുടങ്ങിയ കാര്യങ്ങൾ തീർക്കാറുണ്ട്					
23	പഠനത്തിൽ നിരന്തരമായി സഹപാഠികളുടെ സഹായം തേടാറുണ്ട്					
24	മറ്റുള്ളവരെ ആശ്രയിക്കാതെ തീരുമാനങ്ങൾ എടുക്കാൻ എനിക്ക് സാധിക്കും					
25	എന്റെ പഠനപ്രവർത്തനങ്ങൾ മറ്റുള്ളവരുടെ സഹായമില്ലാതെ ചെയ്തു തീർക്കാൻ സാധിക്കാറില്ല					
26	തനിച്ചിരുന്ന് പഠിക്കാനും പഠനപ്രവർത്തനങ്ങളിൽ മുഴുകാനും എനിക്ക് സാധിക്കും					
27	ഏത് പഠനരീതി തിരഞ്ഞെടുക്കുന്നതാണ് അഭികാമ്യം എന്ന് സ്വയം തീരുമാനമെടുക്കാൻ എനിക്ക് സാധിക്കാറുണ്ട്					
28	സ്വന്തമായി ചെയ്യാൻ സാധിക്കുന്ന കാര്യത്തിലും മറ്റുള്ളവരുടെ സഹായം തേടാറുണ്ട്					
29	അധ്യാപകരുടെ ഉപദേശമില്ലാതെ പഠനപ്രവർത്തനങ്ങൾ പൂർത്തീകരിക്കാൻ എനിക്ക് സാധിക്കാറുണ്ട്					
30	തനിച്ചു ചെയ്യുന്ന കാര്യങ്ങൾ ശരിയാകുമെന്ന ആത്മവിശ്വാസം എനിക്കുണ്ട്					
31	ഏൽപ്പിക്കുന്ന പ്രവർത്തനങ്ങളിൽ നിന്ന് ഒഴിഞ്ഞുമാറാറുണ്ട്					
32	സുഹൃത്തുക്കളുടെയും അധ്യാപകരുടെയും മുന്നിൽ ആത്മവിശ്വാസത്തോടെ കാര്യങ്ങൾ അവതരിപ്പിക്കാൻ എനിക്ക് കഴിയും					
33	എന്റെ പ്രവർത്തനങ്ങളെ മറ്റുള്ളവർ കുറ്റപ്പെടുത്തുമെന്ന ചിന്ത അതു പൂർത്തീകരിക്കാൻ സാധിക്കാത്ത അവസ്ഥയിൽ എത്തിക്കാറുണ്ട്					
34	ക്ലാസ്സിലെ ഗ്രൂപ്പ് വർക്കിൽ നേതൃസ്ഥാനത്തേക്ക് വരാൻ എനിക്ക് കഴിയാറുണ്ട്					
35	കലാ- കായിക മത്സരങ്ങളിൽ തോൽക്കുമോ എന്ന ചിന്ത ഒരിക്കലും അതിൽ പങ്കെടുക്കുന്നതിൽ നിന്ന് എന്നെ പിന്തിരിപ്പിക്കാറില്ല					

കമ നമ്പർ	പ്രസ്താവന	പൂർണ്ണമായും യാജിക്കുന്നു	യോജിക്കുന്നു	അഭിപ്രായമില്ല	വിയോജിക്കുന്നു	പൂർണ്ണമായും വിയോജിക്കുന്നു
36	കമ്പ്യൂട്ടറിൽ പഠിക്കാനുള്ള വസ്തുക്കൾ തിരയു ന്നോൾ ഗയിം കളിക്കാറു					
37	ഹോം വർക്കുകൾ ഞാൻ കൃത്യതയോടെ ചെയ്തു തീർക്കാറു					
38	പഠനത്തോട് മടുപ്പ് അനുഭവപ്പെടുമ്പോൾ അസുഖം നടിച്ചു കിടക്കാറു					
39	സുഹൃത്തുക്കൾ വിനോദങ്ങളിൽ ഏർപ്പെടുമ്പോൾ പോലും ഞാൻ പഠനത്തിൽ ശ്രദ്ധ കേന്ദ്രീകരിക്കാറു					
40	അധ്യാപകർ നൽകുന്ന പ്രവർത്തനങ്ങൾ സുഹൃ ത്തുകളിൽ നിന്നും പകർത്തി എഴുതാറു					
41	എന്റെ പ്രൊജക്ട് അസൈൻമെന്റ് തുടങ്ങിയവ യൊന്നും ഞാൻ മറ്റുള്ളവരെക്കൊ എഴുതിപ്പി കാറില്ല					
42	പരീക്ഷയ്ക്ക് ശേഷം അറിയാവുന്ന ഉത്തരങ്ങൾ എ ഴുതാത്തതിൽ വേദം തോന്നാറു					
43	ക്ലാസ്സിൽ പാഠഭാഗങ്ങളുമായി ബന്ധപ്പെട്ടു വാകുന്ന സംശയങ്ങൾ ചോദിക്കാൻ എനിക്ക് സാധിക്കാറില്ല					
44	പ്രശ്നങ്ങളോട് കൃത്യസമയത്ത് വ്യക്തമായ രീതി യിൽ പ്രതികരിക്കാൻ എനിക്ക് സാധിക്കാറു					
45	തെറ്റായ പ്രവൃത്തികൾ ചെയ്തതിനു ശേഷം അതി നെക്കുറിച്ചുചർച്ചത് വിഷമം തോന്നാറു					
46	എന്റെ ആശയങ്ങൾ ശരിയായ രീതിയിൽ പ്രകടി പ്പിക്കാൻ സാധിക്കാറു					
47	അറിയുന്ന ഉത്തരങ്ങൾ പോലും അധ്യാപകർ ചോ ദ്യങ്ങൾ ചോദിക്കുന്ന സമയത്ത് പറയാൻ സാധി കാറില്ല					
48	പരീക്ഷ കഴിഞ്ഞതിനു ശേഷം ശരിയായ ഉത്തര ങ്ങൾ മനസ്സിലേക്ക് കടന്നു വരാറു					
49	സൗഹൃദ സംഭാഷണങ്ങളിൽ ഏർപ്പെടുമ്പോൾ പഠി കാാനുള്ള സമയം പോകുന്നത് അറിയാറില്ല					
50	സഹപാഠികളുമൊത്ത് കളിക്കാൻ കിട്ടുന്ന സമയങ്ങ ലിൽ പഠിക്കാൻ പഠിക്കാൻ പറയുന്നത് എനിക്കിഷ്ട മല്ല					
51	പരീക്ഷയ്ക്കു പഠിക്കാനുള്ള അവധി ദിനങ്ങളിൽ പോലും സുഹൃത്തുക്കളുമൊത്ത് യാത്ര പോകാ റു					

കമ നമ്പർ	പ്രസ്താവന	പൂർണ്ണമായും യാജിക്കുന്നു	യോജിക്കുന്നു	അഭിപ്രായമില്ല	വിയോജിക്കുന്നു	പൂർണ്ണമായും വിയോജിക്കുന്നു
52	സുഹൃത്തുക്കൾക്ക് നല്ല മാർക്ക് ലഭിക്കുമ്പോൾ എന്റെ പഠനം ഒന്നു കൂടി മികവുറ്റതാക്കാൻ ശ്രമിക്കാറുണ്ട്					
53	പഠന സമയത്ത് സുഹൃത്തുക്കളുടെ സാന്നിധ്യം വലിയ ശല്യമായി എനിക്ക് തോന്നാറുണ്ട്					
54	കമ്പൈൻഡ് സ്റ്റഡിയിലൂടെയാണ് എനിക്ക് നല്ല മാർക്ക് വാങ്ങാൻ സാധിച്ചിട്ടുള്ളത്					
55	പഠന പ്രവർത്തനങ്ങൾ മാറ്റി വെച്ചിട്ടാണെങ്കിലും സുഹൃത്തുക്കളുമായി ചിലവഴിക്കാൻ കിട്ടുന്ന സമയം ഞാൻ പാഴാക്കാറില്ല					

**APPENDIX XII****ACADEMIC PROCRASTINATION SCALE ENGLISH (FINAL)****FAROOK TRAINING COLLEGE , RESEARCH CENTRE IN EDUCATION**

Dr. Hassan Koya M.P  
Assistant Professor  
Farook Training College

Shimimol P.S  
Research Scholar (JRF)  
Farook Training College

**Personal Information**

Name of Student :  
Name of School :  
Type of School :Govt/Aided/Private  
Gender :Male/Female  
Locality :Rural/Urban  
Subject :HSE/VHSE

**Instructions:**

Read the following statements carefully. For each statements five responses- Strongly agree (SA), Agree (A), No opinion (NO), disagree (D), Strongly disagree (SD) were given. How far each statement is right about you. Mark your response by putting tick mark in the column provided. Please don't forget to mark your response for all statements.

<b>Item no.</b>	<b>Statements</b>	<b>SA</b>	<b>A</b>	<b>N.O</b>	<b>D</b>	<b>SD</b>
1.	I fear whether the answers I wrote in the examination are write.					
2.	On the eve of examination I can study systematically with confidence.					
3	I continue study even after examination with confidence.					
4	Feeling what teachers think about my answers to the questions.					
5	I write exam making sure that I covered all the areas for examination.					

<b>Item no.</b>	<b>Statements</b>	<b>SA</b>	<b>A</b>	<b>N.O</b>	<b>D</b>	<b>SD</b>
6	I neglect some areas thinking that they won't ask for examination.					
7	When teachers ask questions I answer with confidence.					
8	I evaluate my works by comparing with others.					
9	Others opinion don't affect my works.					
10	I submit my project with perfection.					
11	I don't like others to evaluate my work.					
12	I don't postpone project and assignments till the last date.					
13	I evaluate my works frequently.					
14	I repeat the same things for better feelings it could have been better after completion of it.					
15	I manage learning time well					
16	I involve in entertainment during learning.					
17	I allotted fixed time per day for each subjects.					
18	I often can't complete my task because I reach in lab and library late.					
19	I learn by watching TV and listening to music.					
20	I can manage time while writing exam so I complete it on time.					
21	I spend less time for those subjects I don't like.					
22	I complete projects and assignments on time.					
23	I continuously seek the help of my friends in learning.					

<b>Item no.</b>	<b>Statements</b>	<b>SA</b>	<b>A</b>	<b>N.O</b>	<b>D</b>	<b>SD</b>
24	I take decisions independently.					
25	I cannot complete my learning task without others help.					
26	I alone can study.					
27	I can decide which learning style is suited to me.					
28	I seek others help in which I can do it alone.					
29	I can complete my learning task without teachers direction.					
30	I am confident that thinks I do alone will success.					
31	I excuse from works assign to me.					
32	I can present thinks confidently in front of friends and teachers.					
33	The thought others criticize my works I can't complete it.					
34	I take the leadership of group work.					
35	Fear of failure don't pull me back from participating extra curricular activities.					
36	I play game while searching for study material in computer.					
37	I complete my home assignments on time.					
38	When I feel lazy I pretend to be ill.					
39	I concentrate on studies even when my friends indulge in entertainments.					
40	I copy assignments from my friends.					
41	I don't assign my project and other tasks to others.					
42	I feel worried when I couldn't answer the questions that I know.					

<b>Item no.</b>	<b>Statements</b>	<b>SA</b>	<b>A</b>	<b>N.O</b>	<b>D</b>	<b>SD</b>
43	I can't clarity my doubts during class.					
44	I can respond to problems on time.					
45	I feel worry after doing wrong.					
46	I can express my ideas well.					
47	I can't answer to the questions even for those I know.					
48	I come to the write answer after completion of examination.					
49	I don't aware that friendly talks steal learning time.					
50	I don't like saying to study when playing with friends.					
51	I like to have tour during study leaves.					
52	I try to learn better when my friends secure good marks.					
53	While learning presence of my friends irritates me.					
54	Combined study helps me to secure good marks.					
55	I found time to have friend even by postponement of learning.					