CHAPTER - I

INTRODUCTION

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INTRODUCTION

“Wisdom is tolerance of cognitive dissonance”. –Robert Thurman

1.1 OVERVIEW

This chapter gives the introduction of the study. The first section is overview and the second one is interpretation. The third section describes the theory, history, evolution, fundamental assumptions, occurrence and existence of cognitive dissonance. Fourth section deals with the factors facilitating cognitive dissonance in the teaching-learning process. Fifth section considers the educational implications of cognitive dissonance. Sixth section covers cognitive dissonance in novice teachers. Seventh section deals with the academic achievement. Eighth section is the rationale of the study. Ninth section covers the definition of key terms and the tenth, the operational definitions of the key terms used. Eleventh gives the assumptions while twelfth covers the limitations of the study. Thirteen section provides the conceptual framework of cognitive dissonance. Need and significance is in fourteen section and scope in fifteenth. Sixteenth section says the contribution of the study. The last and the seventeenth section outlines the chapter wise scheme of the thesis.

1.2 INTRODUCTION
A story from Aesop’s fables

The group of grapes hung on the vine. The vine hung on the trellis.

It was a very hot afternoon and the hungry fox saw the group of grapes. The fox jumped in order to obtain the group of grapes. The fox did not obtain the group of grapes because the fox was not able to reach the group of grapes.

The fox walked away from the group of grapes with dignity and seemingly un-concerned, telling to itself that it earlier thought the group of grapes was ripe and sour. We all know the moral of the story.

But in reality rather than admitting his failure to reach the grapes, the fox rationalises that they are not really desirable and this story is an excellent illustration for the state of cognitive dissonance which is the real state of human race since evolution. The fox is taken as attempting to hold incompatible ideas simultaneously, desire and its frustration. In that case, the disdain expressed by the fox at the conclusion to the fable serves at least to reduce the dissonance through criticism.

Our minds are filled with millions of cognitions. Most of them have no relationship to each other and cannot be correlated. Cognitive dissonance/consonance theory is basic to understanding human thought and behavior. It describes how our beliefs interact with each other, our resistance to new beliefs, and what dynamics are involved when we do change our beliefs. We experience cognitive dissonance and consonance on a day to day basis as we process all the new information in our mental "inbox". It not only applies to our spiritual and political beliefs, but also what products we choose to purchase, how
we raise our children, where we arrange our furniture, and all other decisions we make both large and small.

A cognition is a belief, concept, behavior, memory, attitude, or emotion. For instance, last year’s demonetization in India have something to do with worries of day-to-day transaction. Many cognitions are connected, and of these, some will reaffirm each other (consonance) or conflict with one another (dissonance)

1.3 COGNITIVE DISSONANCE

1.3.1 Meaning and concept of Cognitive dissonance

In the title, ‘cognitive’ indicates the thinking or the mind, and dissonance is inconsistency or conflict. Cognitive dissonance is the psychological conflict from holding two or more incompatible beliefs simultaneously. It refers to a situation involving conflicting attitudes, beliefs or behaviors, which produces a feeling of discomfort leading to an alteration in one of the attitudes, beliefs or behaviors to reduce the discomfort and restore balance.

Cognitive dissonance is not, in and of itself, a thought reform method. But because it is so central to how we think and make decisions, and how it becomes key to understanding manipulative techniques.

1.3.2 Consonance vs dissonance

When a choice has to be made between equally attractive or repulsive alternatives, there occurs a cognitive dissonance. For example, a buyer’s remorse, a feeling of guilt associated with doubts about the advisability of a purchase decision, after making an expensive purchase is buyer’s state of cognitive dissonance. But, when marketers try to manage these doubts with supportive
information such as, testimonials, money - back guarantees and free - after sales service, constitute opposite of cognitive dissonance.

"Dissonance and consonance’ are relations among cognitions that is, among opinions, beliefs, knowledge of the environment, and knowledge of one's own actions and feelings. In short, cognitive dissonance and consonance are two sides of same coin.

1.3.3. Festinger’s cognitive dissonance theory

Cognitive dissonance was first investigated by Leon Festinger, arising out of a participant observation study of a cult which believed that the earth was going to be destroyed by a flood, and what happened to its members — particularly the really committed ones who had given up their homes and jobs to work for the cult — when the flood did not happen.

The theory replaces previous conditioning or reinforcement theories by viewing individuals as more purposeful decision makers; they strive for balance in their beliefs. If presented with decisions or information that create dissonance, they use dissonance-reduction strategies to regain equilibrium, especially if the dissonance affects their self-esteem.

The theory suggests that

1. dissonance is psychologically uncomfortable enough to motivate people to achieve consonance, and

2. In a state of dissonance, people will avoid information and situations that might increase the dissonance.
How dissonance arises is easy to imagine: It may be unavoidable in an information rich-society. How people deal with it is more difficult.

Cognitive dissonance theory in its modern form incorporates a remarkable set of new technologies in psychological science. But the history of cognitive dissonance theory is as old as the Aesop's fable about fox and its change in attitude. Although published inquiries of human cognition can be traced back to Aristotle’s “De Memoria” (Hothersall, 1984), the intellectual origins of cognitive psychology began with cognitive approaches to psychological problems at the end of the 1800s and early 1900s in the works of Wundt, Cattell, and William James (Boring, 1950).

Cognitive psychology declined, in the first half of the 20th century with the rise of ‘behaviourism’ which was the study of laws relating observable behavior to objective, observable stimulus conditions without any recourse to internal mental processes, for lack of understanding of the internal mental processes that led to no distinction between memory and performance and failed to account for complex learning. (Watson, 1913; Boring, 1950; Skinner, 1950; Tinklepaugh, 1928; Chomsky, 1959). These issues led to the decline of ‘behaviorism’ as the dominant branch of scientific psychology and to the raise of ‘Cognitive Revolution’.

At the time that Festinger proposed it, his theory was revolutionary because it suggested that people sometimes act and then form an opinion, instead of forming an opinion (or belief) and then acting on it. In other words, Festinger said, humans have a tendency to rationalize their actions to alleviate cognitive dissonance.
1.3.4 History of Cognitive Dissonance theory

The Cognitive Revolution began in the mid-1950s when researchers in several fields began to developed mind-based theories on complex representations and computational procedures (Miller, 1956; Broadbent, 1958; Chomsky, 1959; Newell, Shaw, & Simon, 1958). Cognitive psychology became predominant in the 1960s (Tulving, 1962; Sperling, 1960). Its resurgence is perhaps best marked by the publication of Ulric Neisser’s book, ‘Cognitive Psychology’ in 1967. Since 1970, more than sixty universities in North America and Europe have established cognitive psychology programs.

1.3.5 Fundamental concepts and principles of Festinger’s theory

Cognitive theory is an approach to psychology that attempts to explain human behavior by understanding human thought processes.

The central proposition of Festinger’s theory is that if a person holds two cognitions that are inconsistent with one another, he will experience the pressure of an aversive motivational state called cognitive dissonance, a pressure which he will seek to remove, among other ways, by altering one of the two dissonant cognitions (Bem, 1967, p. 183). To explain the concept stated above in detail, it is essential to define several basic concepts like cognition and cognitive system.

Cognition (also called a cognitive element) may be broadly defined as any belief, opinion, attitude, perception, or piece of knowledge about anything - about other persons, objects, issues, oneself, and so on (Aronson, 2004, p. 146; Littlejohn & Foss, 2005, p. 77; O'Keefe, 2002, p. 78).

Cognitive system as defined by Littlejohn and Foss (2005) is that it is "a complex, interacting set of beliefs, attitudes, and values that affect and are affected by behavior" (p. 81).
Festinger considered the need to avoid dissonance to be just as basic as the need for safety or the need to satisfy hunger (Griffin, 2006, p. 228). This distressing (aversive) mental state termed *cognitive dissonance* is therefore conceptualized as an *aversive drive*.

### 1.3.6 Examples of cognitive theory

- **Example 1**: Knowing that smoking is harmful (first cognition) while liking to smoke (second cognition). The Cognitive dissonance theory's conditions were met because those cognitions are dissonant.

- **Example 2**: Believing that lying is bad (first cognition) and being forced to lie (second cognition)

- **Example 3**: Liking a friend (first cognition) while knowing that he hates your brother (second cognition)

![Diagrammatic representation of Cognitive dissonance](image)

**Fig.1.1 Diagrammatic representation of Cognitive dissonance**

### 1.3.7 Theoretical Framework of Cognitive Dissonance

Cognitive dissonance is said to exist when a person has two cognitions which contradict each other. Cognitions refer to thought, attitudes, beliefs and behaviour of which the individual is aware. Dissonance refers to an unpleasant state of tension or arousal. Dissonance suggests that individuals will try and escape
this uncomfortable feeling by altering their attitude or behaviour to achieve consistency in their attitudes and behaviour or cognitions.

**People can reduce dissonance in 2 ways:**

1. Changing their behaviour
2. Changing their attitude

![Diagrammatic representation of Theoretical Framework of Cognitive Dissonance](image)

**Fig.1.2 Diagrammatic representation of Theoretical Framework of Cognitive Dissonance**

**1.3.8 Evolution of Cognitive Dissonance Theory**

In mid-1950s, the reinforcement theory was dominant in social psychology research. Psychologists were explaining social-psychological phenomena through behavioral approaches. To illustrate, reinforcement theorists explained conformity as an attempt not to feel anxious to be alone against an unanimous majority in well-known conformity experiment (1951) by Solomon Asch. 50 male students from Swarthmore College in the USA participated in a ‘vision test’ of Solomon Asch. When they were interviewed after the experiment, most of them said that they did not really believe their conforming answers, but had gone along with the group for fear of being ridiculed or thought "peculiar". A few of them said that they really did believe the group's answers were correct. The reward was the
comfort to be in agreement with others. In addition, reinforcement theorists explained that a credible source would be more persuasive because it was more rewarding (Aronson, 1992; 1997).

1.3.9 Leon Festinger’s study on Cognitive Dissonance Theory

The theory of cognitive dissonance (Festinger, 1957) made a significant mark in the history of social psychology. It challenged the long-standing dominance of reinforcement theory (Aronson, 1992; 1997).

1.3.10 Festinger and Carlsmith’s Experiment:

There have been 100s, if not 1000s, of experiments that have examined cognitive dissonance theory since the theory’s inception, but the seminal experiment was published in 1959 (Festinger & Carlsmith, 1959). This experiment is very interesting viewed within a psychological/historical context because it involved a direct test of a "mentalistic" theory versus a behaviorist theory. Cognitive dissonance theory was based on abstract/internal/mental concepts, which were, of course, anathema to the behaviorists. Festinger and Carlsmith set up an ingenious experiment which would allow for a direct test of cognitive dissonance theory versus a behavioral/reinforcement theory.

In this experiment all participants were required to do what all would agree was a boring task and then to tell another subject (who was actually a confederate of the experimenter) that the task was exciting. Half of the subjects were paid $1 to do this and half were paid $20, fairly quite a bit of money in the 1950s. Following this, all subjects were asked to rate how much they liked the boring task. This latter measure served as the experimental criterion/the dependent measure. According to behaviorist/reinforcement theory, those who were paid $20 should like the task more because they would associate the payment with the task. Cognitive
dissonance theory, on the other hand, would predict that those who were paid $1 would feel the most dissonance since they had to carry out a boring task and lie to an experimenter, all for only 1$. This would create dissonance between the belief that they were not stupid or evil, and the action which is that they carried out a boring task and lied for only a dollar. Therefore, dissonance theory would predict that those in the $1 group would be more motivated to resolve their dissonance by reconceptualizing/rationalizing their actions. They would form the belief that the boring task was, in fact, pretty fun. As we might suspect, Festinger’s prediction, that those paid $1 would like the task more, proved to be correct.

1.3.11 Fundamental assumptions of Cognitive dissonance theory

Cognitive dissonance theory is based on three fundamental assumptions.

1. Humans are sensitive to inconsistencies between actions and beliefs.

According to this assumption in the theory, we all recognize, at some level, when we are acting in a way that is inconsistent with our beliefs/attitudes/opinions. In effect, there is a built in alarm that goes off when we notice such an inconsistency, whether we like it or not. For example, if we have a belief that it is wrong to cheat, yet we find ourselves cheating on a test, and be affected by this inconsistency.

2. Recognition of this inconsistency will cause dissonance, and will motivate an individual to resolve the dissonance.

Once we recognize that we have violated one of our principles, according to this theory, we will feel some sort of mental anguish about this. The degree of dissonance, of course, will vary with the importance of our belief/attitude/principle and with the degree of inconsistency between our behavior and this belief. In any case, according to the theory, the greater the dissonance the more we will be motivated to resolve it.
3. Dissonance will be resolved in one of three basic ways:

**Fig.1.3. Ways of Resolving Dissonance**

a. Change belief: Perhaps the simplest way to resolve dissonance between actions and beliefs is simply to change your beliefs. This is the simplest option for resolving dissonance it’s probably not the most common.

b. Change actions: A second option would be to make sure that you never do this action again because guilt and anxiety can be motivators for changing behavior when you cheat on a test. This can often be a pretty poor way of learning, especially if you can train yourself not to feel these things. So, the trick would be to get rid of this feeling without changing your beliefs or your actions, and this leads us to the third, and probably most common, method of resolution.

c. Change perception of action: A third and more complex method of resolution is to change the way we view/remember/perceive our action. In more colloquial terms, we would "rationalize" our actions, by telling that everyone cheats or thinking the action in a different way, so that it no longer appears to be inconsistent with our beliefs.
If we reflect on this series of mental gymnastics for a moment we will probably recognize why cognitive dissonance has come to be so popular.

1.3.12 Occurrence and Existence of Cognitive Dissonance:

According to Festinger, we hold many cognitions about the world and ourselves; when they clash, a discrepancy is evoked, resulting in a state of tension known as cognitive dissonance. As the experience of dissonance is unpleasant, we are motivated to reduce or eliminate it, and achieve consonance.

An individual is urged to do something he knows is wrong, but he wants to do it anyway. However, if the individual readjusts his thoughts, and realizes that a certain behavior will conflict with deeply held beliefs, he will avoid committing the act and this will bring relief because the tension will be reduced. There are several situations where dissonance can occur. To cite a few:

- dissonance can also occur as a result of depression
- disappointing life event or a combination of events that occur in an individual's experience.
- making a wrong decision about a matter pertaining to a life event.
- cultural mores which create an imbalance in the life of the person or group affected by its presence.
- environmental elements which can be more difficult to deal with since the individual who is experiencing dissonance must have some measure of control over the environment.
- disequilibrium resulting from existence needs , which is indicated by hunger, frustration transitions.
• like an immigrant entering a new country or the student going to college will have many questions and inhibitions about facing a new environment.
• betrayal of trust, by a friend or whomsoever the trust is placed, can create dissonance either for a short time or over a prolonged period.
• forces in the society, which could be scarce resources, racism, unequal distribution of wealth and many more factors that are considered.

1.3.13 Magnitude of dissonance

Magnitude of dissonance is the amount of dissonance produced by two conflicting cognitions or actions as well as the subsequent psychological distress. 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.

Since the magnitude of dissonance is an important variable in determining the pressure to reduce dissonance, measures of the magnitude of dissonance can be summarized as given below:

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.
1.3.14 Relationship between elements of Cognitive Dissonance

Individuals can adjust their attitudes or actions in various ways. The relations which may exist between pairs of elements in cognitive dissonance are of three, namely, irrelevance, dissonance, and consonance, which are discussed below.

- Irrelevant relationship: Two cognitions/actions that are unrelated to one another (e.g., not wanting to smoke, but scribbling in a pad)
- Dissonant relationship: Two cognitions/actions that are inconsistent with one another (e.g., not wanting to smoke, but smoking lot of cigarettes)
- Consonant relationship: Two cognitions/actions that are consistent with one another (e.g., not wanting to smoke, but buying a chewing gum instead of cigarette)

1.4. FACTORS FACILITATING COGNITIVE DISSONANCE

1.4.1 Cognitive dissonance and locus of control

Basically the term ‘cognitive dissonance’ means that we are in two ‘minds’ and at the same time, where one ‘mind’ is contradicting the other. So, the term ‘cognitive dissonance’ is the mental conflict that people experience when they are presented with evidence that their beliefs or assumptions are wrong.

The driving force of Cognitive Dissonance is how our feeling of tension of two ‘minds’ is responded with respect to our attitude, belief or behaviour. To cite an example of a student deciding to cheat in the test, or writing the test honestly, the student’s response will determine whether it will have ‘empowering’ or ‘disempowering’ effects on the student. The power of empowerment lies in cognitive dissonance which indicate a pre-eminent opportunity for introspection and being honest to consciously, decide what type of response will serve best in
such conflicting situation. And that’s where power of empowerment lies and this power lies in locus of control. In this context, cognitive dissonance can roughly steer student in two directions:

- A destructive direction, implying external locus of control, which usually cycles into disempowerment
- A constructive action, implying internal locus of control, which usually leads to consistently increasing empowerment.

Exploring both directions more thoroughly, student can make sure that he/she keeps himself/herself from cycling into disempowerment, through external locus of control, and instead put himself/herself into a consistent flow of ever-increasing empowerment through internal locus of control.

This instance holds good to consider, both locus of control as associated dimensions for this present study.

1.4.2 Cognitive dissonance and locus of control in teaching-learning situation

Locus of control is a theory in personality psychology referring to the extent to which individual’s believe that they can control events that affect them.

The development of locus of control is associated with family style and resources, cultural stability and experiences with effort leading to reward.

Internal locus of control insists that teacher himself is responsible for his own attitude / behaviour whereas the external locus of control insists that factors control over his behavior. So these external and internal factors are responsible for successful and unsuccessful performance of the teacher to affect or develop learner performance in academic and other academic related activities.
Those with a high internal locus of control exhibit better control of their behavior, tend to be more politically involved and are more likely to attempt to influence others than are those with an external locus of control. They also assign greater likelihood to their efforts being successful, and more actively seek information concerning their situation.

Abramson et.al believed that how people explained successes and failures in their lives, related to whether they attributed these to internal or external factors, short term or long term factors that affected all situations.

Many internals have grown up with families modeling typical internal beliefs; these families emphasized effort, education, responsibility and thinking.

In contrast, externals are typically associated with lower socio economic status. Societies experiencing social unrest increase the expectancy of being out of control; therefore people in such societies become more external.

We can explain this with an example. The problem / event is, conduction of Physics practicals for class XII students. Because of frequent power failure, conducting practicals in the regular school hours becomes impossible.

Here the externals (Teachers with external locus of control) can blame the power interruption for the non conduction of practical classes.

But internals (those with internal locus of control) exhibit better control of the situation by arranging special classes and they would strive for achievement against the odd situation.
Internal locus of control is linked with higher levels of need for achievement. It is very essential for the teacher to overcome external locus of control. Here lies the achievement of the teacher for which internal locus of control played a role in outplaying external locus of control.

Teachers who are more internally controlled believe that hard work and focus would result in successful professional progress and they perform better. Those teachers who are more externally controlled tend to have lower professional performance level. Also in general family environment, gender and culture play an important role in teachers’ locus of control and it would affect achievement motivation either positively or negatively.

Warmth, supportiveness and encouragement seem to be essential for development of an internal locus of control. These should be given to teachers to enhance their performance and thus making them to have higher levels of self esteem.

1.4.3 Cognitive dissonance and Attitude

As the definition cognitive dissonance itself reveals that it is imperative that attitude plays significant role in creating cognitive dissonance among us. When two beliefs or attitudes contradict each other resulting in emotional turbulence, lots of people start changing their attitude as a result.

In the case of a smoker, who knows that smoking is harmful, might change his opinion about smoking by creating a new belief such as "I am already a healthy person; so smoking would never affect me in a bad way." Some people could even go further and claim that smoking has some kind of health benefits.
So a person can change his attitude just to relieve the conflict that results from cognitive dissonance. If a person has negative attitude towards something he might change his attitude about it and even claim that he enjoys it, just to feel good. Another example is that in order to motivate someone to change his/her attitude, what is needed is to force the creation of cognitive dissonance in his/her mind. A person has a negative attitude towards another common friend. In such a case the friend can tell him that this common friend said behind his back that he is a good person.

As soon as this is said conflicting feelings will be created and friend’s friend and he might change his attitude by saying something like "he was not a bad guy after all, he did many good things to me earlier". This is how cognitive dissonance can be used to change someone's attitude. These instances, we see a lot, in our day to day life, attitude can be considered as a facilitating factor for cognitive dimension.

These instances hold good to consider attitude as one of the factor facilitating cognitive dissonance.

14.4 Cognitive Dissonance and Self-Efficacy

Self-efficacy beliefs determine how people feel, think, motivate themselves and behave. Such beliefs produce diverse effects through four major processes. They include cognitive, motivational, affective and selection processes. A strong sense of efficacy enhances human accomplishment and personal well-being in many ways. People with high assurance in their capabilities approach difficult tasks as challenges to be mastered rather than as threats to be avoided. Such an efficacious outlook fosters intrinsic interest and deep engrossment in activities. They set themselves challenging goals and maintain strong commitment to them.
They heighten and sustain their efforts in the face of failure. They quickly recover their sense of efficacy after failures or setbacks. They attribute failure to insufficient effort or deficient knowledge and skills which are acquirable. They approach threatening situations with assurance that they can exercise control over them. Such an efficacious outlook produces personal accomplishments, reduces stress and lowers vulnerability to depression (Bandura A. 1994)

In contrast, people who doubt their capabilities shy away from difficult tasks which they view as personal threats. They have low aspirations and weak commitment to the goals they choose to pursue. When faced with difficult tasks, they dwell on their personal deficiencies, on the obstacles they will encounter, and all kinds of adverse outcomes rather than concentrate on how to perform successfully. They slacken their efforts and give up quickly in the face of difficulties. They are slow to recover their sense of efficacy following failure or setbacks. Because they view insufficient performance as deficient aptitude it does not require much failure for them to lose faith in their capabilities. They fall easy victim to stress and depression. (Bandura A. 1994)

As self-efficacy determines and facilitates the processes of cognition, this can also be considered as one of the dimensions of cognitive dissonance. Taylor in 2001 made a study to explore how cognitive dissonance may help prospective teachers make their implicit conceptions about teaching and learning explicit and support their reconstruction of these notions. Findings indicate that elementary teachers’ conceptions about mathematics change after experiencing and reflecting on cognitive dissonance.
Taylor (2001) suggested that the mediation of verbal and non-verbal interactions may transform the concealed implicit learning into articulated explicit ideas. He inferred that the interaction of implicit and explicit experiences is critical for learning to be transformative. From this stance, Olson, Chiado, Sala, & Kirtley (2005) theorized that

(a) the transformation from implicit to explicit may promote teachers’ self-efficacy, which emerges through critical reflection of deeply held beliefs and emotions and

(b) an increase in teachers’ self-efficacy enables teachers to assume leadership roles. Olson, Chiado, Sala, & Kirtley (2005) created a model to describe how this critical reflection increases self-efficacy by helping teachers connect theory with practice and gain confidence. From the perspective of symbolic interactionism, when self-efficacy increases, teachers’ interactions with colleagues change as they voice their ideas in new ways and may lead to new informal or formal leadership roles.

**Cognitive Dissonance and Locus of Control in Teaching-Learning Situation**

Every teacher must have self dependency in the environment in which she/he works that is relying on their own in order to have a better output or performance. Teachers’ self-reliance depends on her knowledge, confidence, competency, communication etc. to be an effective teacher. These qualities enhance the teacher to overcome the external locus of control and gain internal locus of control.

In Piaget’s term, ‘equilibration’ is the motivational force at the back of cognitive development. The equilibration lies in biological maturation, understanding of professional or physical environment familiarity with one’s social
environment and stability of mind, maturation and both social and physical environment in connection with profession correlated with equilibration but accommodations of new ideas is very difficult.

Therefore, effectiveness of socialization process in congenial social environment also reduces cognitive dissonance. When dissonance is reduced, the teachers’ self-efficacy is promoted. Because teachers’ belief or idea moves from implicit nature to explicit nature by analyzing the new experiences of teaching learning environment.

The analysis can be done perfectly by effective and experienced teachers who can identify the real causes of these problems and tackle the situation, by preferring positive cognitive elements such as sincerity, punctuality and ethical based activities etc. But novice teachers may find difficult to handle the professional environment and thereby they prefer negative cognitive elements and struggle a lot with frustration, mental stress, lack of harmony and difficult to work in a comfortable way and they enter into cognitive dissonance.

When dissonance occurs, teacher efficacy lessens in promoting learner performance. But self efficacy is positively related to career success. If teachers endorse higher levels of stress, also endorse higher levels of illness, higher levels of external locus of control and lower levels of self efficacy.

Longer employment is always correlated with high self efficacy of teachers thereby ensuring secured job. If all this happens, teachers will have high self efficacy in professional environment and they would show positive attitude towards their job and thereby increasing students’ academic performance.
Locus of control becomes more internal with age. Locus of control is also a dimension of core self evaluations along with self efficacy, self esteem etc. It is found that there is significant positive relationship between locus of control and self efficacy and they are related to academic achievement. They are positively related to each other which influence career success the most.

Those with a high internal locus of control exhibit better control of their behavior, tend to be more politically involved and are more likely to attempt to influence others than are those with an external locus of control. Internals also assign greater likelihood to their efforts being successful, and more actively seek information concerning their situation.

If they are successful in their attempts, their self efficacy would be promoted. By this we can come to know that self efficacy plays an important role in promoting teachers’ locus of control.

Teachers with high levels of self efficacy have confidence in their abilities to meet their goals, they tend to set higher expectations and demonstrate greater effort.

Fig.1.4 Cognitive dissonance, locus of control and self efficacy in teaching - learning situation
Flores (2004), has noted that, school environments are commonly very paradoxical, and no two of them are exactly alike. School settings are characterized by a number of features that coexist, such as being comparing and competitive, autonomous and hierarchical, individualistic and collaborative, silent and interactive. Creating and resolving cognitive dissonance can have a powerful impact on teaching learning process.

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1.5 EDUCATIONAL IMPLICATIONS OF COGNITIVE DISSONANCE

Educational Psychologists have incorporated cognitive dissonance into models of basic processes of learning, notably constructivist models. Several educational interventions have been designed to foster dissonance in students by increasing their awareness of conflicts between prior beliefs and new information (e.g., by requiring students to defend prior beliefs) and then providing or guiding students to new, correct explanations that resolve the conflicts.
Researchers have developed educational software that uses these principles to facilitate student questioning of complex subject matter. Meta-analytic methods suggest that interventions which provoke cognitive dissonance to achieve directed conceptual change, have been demonstrated across numerous studies to significantly increase learning in mathematics science and reading.

1.6 COGNITIVE DISSONANCE AND NOVICE TEACHERS

McFalls and Cobb-Roberts (2001) performed research on students enrolled in teacher education programs in college. They wanted to learn if they could reduce resistance to diversity using cognitive dissonance for perspective teachers. McFalls and Cobb-Roberts revealed a fundamental concept of teacher education programs understood diversity concerns. They claimed dissonance between divergent ideas was unpleasant. Almost, this is the case with all perspective teachers.

The survey of the study done in Malaysia reveals that, the 910 respondents from Malaysia was practical in nature and addressed the call for investigating effective aspects of field experiences in teacher preparation. The authors designed a framework of assignments requiring the pre-service teachers to collect data about two diverse elementary students in their assigned elementary classroom during the twelve weeks of their placement and reported that they were facing moderate amount of problems pertaining to curriculum specifications, resources, teaching preparation, classroom teaching, classroom management, interpersonal relationship, assessment and evaluation, school, administration and service policies, and co-curriculum. (Fathima Senom et.al 2013).
Newly qualified teachers is growing all over the world, we do not yet know enough about challenges that the novice teachers face in their professional context since research on novice teacher is scarce. However, a nationwide large-scale study on the readiness of novice teachers’ professionalism provide some general picture on the challenges that novice teachers from various fields face during their early years of teaching in higher secondary classes where academic achievement is the main focus of the schools.

1.7 ACADEMIC ACHIEVEMENT

The most compelling evidence for the importance of teaching came to measure the effect of teachers on student learning. While the statistical methods are complex, the definition of effective teaching is not. Simply, researchers looked for the change in students’ test scores according to the teacher they were assigned to. A highly effective teacher, therefore, is one whose students show the most gains from one year to the next. By using this approach, researchers are able to isolate the effect of the teacher from other factors related to student performance, for example, students’ prior academic record or school they attend.

Reports and data from two initiatives in Tennessee—the Tennessee Value Added Assessment System (TVAAS) and Student Teacher Achievement Ratio (STAR) project—and one in Texas—the University of Texas at Dallas Texas Schools Project—provide good starting points for understanding how much of an effect, teachers have on student outcomes.
1.8 RATIONALE OF THE STUDY

Olson, Chiado, Sala, & Kirtley (2005) created a model in his study on teachers, suggests that cognitive dissonance is one way to prompt individuals to critically examine their implicit beliefs in light of new experiences and support transformational change. Research using this model to interpret social interactions indicated that teachers began to understand and articulate their implicit learning through discussions that were punctuated by questions that prompted critical reflection.

Further Olson et al. suggests that this critical reflection increases self-efficacy by helping teachers connect theory with practice and gain confidence. From the perspective of symbolic interactions, when self-efficacy increases, teachers’ interactions with colleagues change as they voice their ideas in new ways and may lead to new informal or formal leadership roles. (Olson, Colasanti & Trujillo PME30 -20064-283)

On the basis of a social learning theory analysis of the cognitive dissonance effect, from a study of college students, it was hypothesized that locus of control would mediate attitude change in a forced compliance paradigm. The classical cognitive dissonance effect was obtained when freedom of choice was stressed, but when locus of control was removed as a covariate, the effect disappeared.(Michael P. 2010)

The above studies initiated the researcher to make a study on cognitive dissonance of novice teachers, taking into account of locus of control, attitude and self – efficacy of novice teachers in academic achievement of their students in higher secondary.
Thus the present study has emerged out with the title, “Cognitive dissonance, Locus of control, Self-efficacy of Novice teachers in relation to students’ academic performance.”

Demographic information documented gender, locality of school, nature of school, type of school, years of teaching experience and subject handled by the novice teachers in +2, in higher secondary schools following Tamilnadu state board syllabus.

1.9 DEFINITION OF KEY TERMS

- **Cognitive dissonance**
  
  It is a psychological tension that arises because of lack of harmony (or) agreement in one’s ideas / beliefs with the reality.

- **Locus of control**
  
  Locus of control is a theory in personality psychology referring to the extent to which individual’s believe that they can control events that affect them.

- **Attitude**
  
  Attitude refers to the feeling of a person towards his / her profession.

- **Self-efficacy**
  
  Self efficacy is the people’s judgements of their capability to undertake and execute successfully a specific task in a specific context.

- **Novice teachers**
  
  Novice teachers are those who have undergone teacher training course and enter newly in the professional setting where he/she is placed.
• Academic Performance

It refers to the pupil’s knowledge attainment and skill developed in the school subject which is assured by the authorities with the help of achievement test in the form of examinations.

1.10 OPERATIONAL DEFINITIONS OF THE KEY TERMS

Operational definitions for the key terms related to the study are given below:

Cognitive dissonance

Operationally, the term cognitive dissonance is a psychological feeling of discomfort that arises from the novice teachers’ ideas related to cognitive elements in the professional environment.

Locus of control

Operationally, the external and internal factors are responsible for successful and unsuccessful performance of teacher to affect or develop learner performance in academic and other academic related activities.

Internal locus of control

Operationally, the term, internal locus of control, is that novice teachers believe that the academic achievement of their students is the outcome of teachers’ actions and results are teachers’ own abilities.

External locus of control

Operationally, the term, external locus of control, is that novice teachers believe that the academic achievement of their students is the result of external factors like luck, fate and powerful influence of others.
Attitude

Operationally, attitude refers to the tendency of novice teachers to perceive the events that take place in their professional environment, either positively or negatively.

Novice Teachers

Operationally, novice teachers are teachers, who have teaching experience within three years in handling arts or science subject in +2, in higher secondary schools, following Tamilnadu state board syllabus.

Self-efficacy

Operationally, it is the ability of the novice teachers to change the outcomes of their students in order to get desired results.

Academic achievement

Operationally, academic achievement is the pass percentage of students of arts or science subject of novice teachers, in +2, in higher secondary common examination of Tamilnadu state board syllabus, conducted in March 2016.

1.11 ASSUMPTIONS OF THE STUDY

1. In the present study, few assumptions were made for the responses made by the participants.

2. It is assumed that the sample will honestly reflect upon the behavior pertaining to the situation in the inventory and respond sincerely and truthfully.

3. It is assumed that the responses of sample will represent their actual behaviors and experiences at school.
1.12 LIMITATIONS OF THE STUDY

Following are the limitations of the study,

- The present study was carried out only on 350 samples, from the city of Coimbatore and its rural area in TamilNadu State.
- Teachers with experience of only 3 years or below, handling arts or science subjects for twelfth standard at higher secondary level, following Tamilnadu state board syllabus are considered for the study.
- The present study relied on single respondent responding of novice teachers about how they perceived the situations described in the inventory.
- Equal number of sample could not be drawn from different types of schools on account of less number of novice teachers in some subjects selected for the present study. Considering the small size of the sample, no broad generalizations of the findings are claimed.

1.13 CONCEPTUAL FRAME WORK OF COGNITIVE DISSONANCE

“Cognitive dissonance, Locus of control, Self-efficacy of Novice teachers in relation to students’ academic performance.”
1.14 NEED & SIGNIFICANCE OF THE STUDY

Teachers’ activities will always reflect on the society. If they perform well in a positive way, students get better results which in turn work out for the welfare of the future society. In teaching profession, novice teachers face more conflicts. They suffer due to dissonance. In a profession like teaching, if teacher himself has cognitive dissonance, it would produce ineffective results in teaching – learning process. This will harm the teacher, students and the whole society. Therefore, it must be given due concern.

Mental hygiene of teachers must be maintained properly by providing corrective measures like changing dissonance into consonance. Therefore, the study is necessary in the present context. At the same time, the dissonance must be reduced to develop resistance to negative cognitive elements and remedies must be given. This can be done with the help of co-teachers also. Normally, novice teachers face more conflicts and they will never be stable, disequilibrium could develop into cognitive dissonance and lead to doubting their efficacy. This can be corrected in due course. The teachers can reduce their discomforts with the help of value-based activities and promote internal locus of control to strengthen their ability which is needed to improve the outcome of students.

This study is needed to help teachers identify their dissonant elements and guide them to seek consistency in behaviour by changing their attitude towards profession.

The study also focuses on locus of control and self-efficacy of novice teachers. If novice teachers have internal locus of control, they develop their ability and the level of ability will be used for bringing out the high level outcome also. In this way, the study may be a needed one in the present context.
This study explores the merits and validity of cognitive dissonance. This would help the individual who has cognitive dissonance and make them prefer positive cognitive elements to avoid such behaviour which would result in unpleasant and foreseeable consequences. Teachers may get their job for their survival without any interest in their work. They may not be committed towards their profession. This will affect the students and the society. Hence, to make the individual teacher, who badly suffers due to cognitive dissonance to come out of the crisis, guidelines may be given by the experienced fellow teachers and problem-solving techniques may be provided to handle the situations. This would be very much useful for the novice teachers to cope up with the problem situation. Further, they will get practiced to approach any fearful incidents and handle it effectively. Therefore to regulate the activities of novice teachers, the study is very useful to other teachers who come to teaching profession in future.

Teachers’ attitude towards their profession has much significance. Their attitudes influence over students’ education when teachers have negative attitudes or disbeliefs. The policy makers may get benefitted from the present research and suggest innovative policies and practices. In this way, the study has its own importance in the present context.

1.15 SCOPE OF THE STUDY

The purpose of this study is to explicate the concept of cognitive dissonance as experienced and reported by novice teachers.

This study helps the teachers to shed out their negative cognitive elements and also makes them gain or prefer positive cognitive elements. Because of this change in attitude, the teachers can show their job spirit. They can have
commitment towards profession. The atmosphere would be congenial to them and they will develop job satisfaction.

This study gives a moral support to teachers by guiding them to process their negative cognitive elements into positive cognitive elements. By doing so, the study indirectly helps the society a lot.

The study may help teachers to eliminate dissonance (i) by reducing the importance of the dissonant beliefs, (ii) adding more consonant beliefs that outweigh the dissonant beliefs or (iii) change the dissonant beliefs so that they are no longer inconsistent.

The study explores the role of dissonance reduction process in teachers. With this, process, they can show resistance to the cognitive dissonance and develop consonance in them. So this would help the teachers to avoid insecure feeling and they can use their potential in their work. Maximum utilization of manpower can be found.

The study directs teachers to promote self-empowerment and so they can show resistance to cognitive dissonance thus enhancing performance which would benefit students a lot. The study would be very useful to teachers to regain their mental hygiene also.

The research is intended to apply dissonance theory to all situations involving formation of attitudinal change. This would be helpful in decision-making and problem solving skill in future.
1.16 CONTRIBUTIONS OF THE STUDY

- The study directly deals with the attitude of teachers which is important in the field of education.
- It brings out the inner nature of the teachers towards their profession.
- It helps the novice teachers to adapt themselves in their professional environment.
- It guides the teachers in converting the cognitive dissonance into cognitive consistency.
- It promotes self-reliance in teachers and strike a balance between what they have been trained and what they face in their professional situations. Since teachers are considered as key persons in our educational system, the above aspects are considered as an important one in improving quality of education.
- Further, teachers must have harmony with other people such as (Co-workers, learners, etc.) in the professional set up. They should develop good human relationship in their working place. If not, there won’t be team spirit which is very vital in an educational system.
- The study was conducted through the lived experiences of teachers that may help novice teachers to socialize in their professional environment.
- By suggesting, how to change their dissonance into consonance, the study may promote the mental health of teachers and in turn provides emotional intelligence which is a positive sign to their profession.
The study may help removing drawbacks in the educational system. It helps the teachers to learn the teaching environment and makes them adapt the environment. Teachers are made to realize the practicality of environment.

The study may guide the novice teachers to distinguish between mild and severe problems and teach how to handle the problems based on severity even though teachers have lack of experience.

Nowadays most of the people have job dissatisfaction. They are sticking to the job without much real interest and they work for their survival only. This kind of mentality may help them switch over to some other job. In this situation, the novice teachers may have cognitive dissonance. Further, the study may also create interest in the present job and overcome cognitive dissonance.

The study may help teachers to prefer internal locus of control to develop their self-efficacy in professional environment and prefer positive cognitive elements to have cognitive consistency, internally. Because it is needed for promoting the valid activity in turn it is needed for improving the quality education at Higher Secondary Level.
1.17 CHAPTER – WISE SCHEME OF THE THESIS

This Chapter tells in a nutshell about the cognitive dissonance encountered by the novice teachers in their professional environment, their locus of control, attitude and self efficacy influencing the academic performance of students at higher secondary level, the need, significance and scope of the study. This also deals about the conceptual framework with the theoretical validation of this study.

Chapter 2 deals with the review of related literature and rationale for the study. It contains the studies conducted in India as well as abroad. It discusses the analytical review of related literature to locate the research gap and points out the implications for the present study.

This Chapter 3 covers the methodology adopted in this study. This states the problem and the objectives of the study, describes research design, frames hypotheses related to the study. This deals with sample and sampling technique. It shows the instrumentation consists of procedure involved in tool construction. This considers assumptions, discusses limitation and highlights the limitation of the study. This chapter briefs the statistical techniques used in analyzing the data of the present study.

Chapter 4 deals with the data analysis and interpretation, selection of right kind of statistical analysis, data interpretation, graphical representation of results, hypothesis testing and other major components connected to data analysis and interpretation.

Chapter 5 presents the summary of the study which tells in nutshell about the methodology of the study and contains findings of the study, discussion based on findings, conclusion, implication of the present study and suggestions for further research.