

**CURIOSITY AND EXPLORATION, BOREDOM PRONENESS AND SITUATIONAL
MOTIVATION AMONG YOUNG ADULTS**

**BY
SWATHY P
20PAP023**

A Thesis submitted to the



Avinashilingam Institute for Home Science and Higher Education for Women

(Deemed to be University Estd. u/s 3 of UGC Act 1956, Category A by MHRD)

Re-accredited with A++ Grade by NAAC. CGPA 3.65/4, Category I by UGC

Coimbatore - 641 043, Tamil Nadu, India

In Partial fulfillment of the Requirement for the Degree of

Master of Science

In

Applied Psychology

(2020-2022)

May 2022

**CURIOSITY AND EXPLORATION, BOREDOM PRONENESS AND SITUATIONAL
MOTIVATION AMONG YOUNG ADULTS**

BY

SWATHY P

20PAP023

A Thesis submitted to



Avinashilingam Institute for Home Science and Higher Education for Women

(Deemed to be University Estd. u/s 3 of UGC Act 1956, Category A by MHRD)
Re-accredited with A++ Grade by NAAC. CGPA 3.65/4, Category I by UGC
Coimbatore - 641 043, Tamil Nadu, India

In Partial fulfilment of the Requirement for the Degree of

Master of Science

In

Applied Psychology

(2020-2022)

May 2022

S. Gayathri Devi

Signature of the Head of Department

S. Gayathri Devi

Signature of the Guide

ACKNOWLEDGEMENT

Acknowledgement

Gratitude for the present moment and the fullness of life now is the true prosperity

- Eckhart Tolle

I take this opportunity to express my gratitude to every person from whom I was fortunate to get valuable guidance and help. First of all, I would like to thank God almighty, for showering his blessings to make this project a success.

I owe my thanks to the heads of Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, **Prof. S.P. Thyagarajan, Chancellor**, for providing the conducive infrastructure for the conduct of my study. I also convey my regards to **Dr. Bharathi Harishankaran, Vice Chancellor, Dr. S. Kowsalya, the Registrar and Dr. M. Manonmani, M.A., M.Phil., Ph.D., Dean for school of Arts and Social Science** for extending all possible help towards the completion of the study.

I am privileged to express my deep sense of gratitude to my respectable **guide Dr. S. Gayatri Devi. M.A., M.Phil., Ph.D., Professor and Head of the Department of Psychology**, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, for her valuable support and motivation and the encouragement extended by her during the study. Words are insufficient to thank her who initially directed me and enlightened my project. Her input in every stage of my work, suggestions, meticulous care, patience, motivation, guidance and encouragement, I whole heartedly thank her for all her support.

I greatly thank the support and help extended by the **Faculty Members** of the Department of Psychology, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, during the course of this study.

I extend my gratitude to all the participants who took part in my study.

I wish to thank my **parents and my beloved friends** for supporting, encouraging, understanding and also for providing their timely help, which made this work possible. I owe deepest gratitude to all those who have directly or indirectly helped me in successfully completing this task.

CONTENTS

Contents

Chapter	Title	Page Number
	List of tables	
	List of figures	
	Abstract	
I	Introduction	1
II	Review of Literature	12
III	Method <ul style="list-style-type: none">• Objectives• Hypotheses• Area• Sample• Research Design• Tools• Analysis of data	31
IV	Results and Discussion	35
V	Summary and Conclusion	41
	Reference	
	Annexure	

LIST OF TABLES

List of Tables

Table	Title	Page Number
I	Sociodemographic of the participants	35
II	Relationship between Curiosity and Exploration, Boredom Proneness and Situational Motivation among Young Adults	36
III	Mean and Standard Deviation for Male and Females in Curiosity and Exploration, Boredom Proneness and Situational Motivation among Young Adults	37
IV	F value for the family type of the sample population, Curiosity and Exploration (Stretching), Curiosity and Exploration (embracing), Boredom Proneness, Intrinsic Motivation, Identified regulation, External regulation and Amotivation	38

LIST OF ANNEXURES

Annexure	Title
I	Informed Consent Form
II	Socio Demographic Profile
III	The Curiosity and Exploration Inventory II
IV	Boredom Proneness Scale
V	Situational Motivation Scale

ABSTRACT

ABSTRACT

The study on Curiosity and Exploration, Boredom Proneness and Situational Motivation among young adults was conducted in Coimbatore and Nilgiris. Two hundred and thirty two young adults including forty three (n=113) males and one hundred and seven (n=119) females in the age range of 18 to 29 years were selected by Random Sampling Method. All the participants were administered by Curiosity and Exploration Inventory (Kashdan et al, 2009), Boredom Proneness Scale (Famer, R. & Sunberg, N. D., 1986) and Situation Motivation Scale (Guay et al., 2000). Pearson's correlation and ANOVA was used to analyse the data. The results showed that there was significant relationship between curiosity and exploration, boredom proneness and situational motivation among young adults and there was no significant difference between males and females in curiosity and exploration, boredom proneness and situational motivation among young adults.

Keywords: Curiosity and Exploration, Boredom Proneness, Situational Motivation, Young Adults

CHAPTER I INTRODUCTION

The earliest discussions of curiosity were conducted by philosophers and religious thinkers and centered on the question of curiosity's moral status rather than on its psychological underpinnings. Cicero referred to curiosity as a "passion for learning" and argued that the story of Ulysses and the Sirens was really a parable about curiosity.

Several forms of curiosity related behaviours such as search behaviours, movement toward an unknown object and asking questions are included in the area of Motivational Psychology, however, curiosity does not fit well into the conceptual framework developed along the traditional pathways of behavioural sciences. Firstly, the conception of an intrinsically motivated behavioural system, which cannot be linked to a reducible drive raises serious questions about Motivational Psychology since the 1950's.

The idea of curiosity was rediscovered when laboratory researchers wondered about the maze activities of the lab rat when none of the drive states such as thirst or hunger were aroused. Secondly, Wohlwill (1981) states that the curiosity phenomena cannot be investigated without reference to the natural environment of an individual. Before 1950 curiosity was seen in the light of its social function, for example, the eagerness or greed to get to know something new for the sake of newness, and in early psychological literature the term curiosity had a negative connotation. The scientific term "curiosity" is more neutral.

William James (1890) pointed out two kinds of curiosity. He emphasized the biological function of curiosity as a mechanism of instinct driven behaviors that serves in approaching new objects. Approach and exploration are described as being characteristic forms of behaviors. The second kind of curiosity pointed out by James is "scientific curiosity" and "metaphysical wonder" with which "the practical instinctive root has probably nothing to do" rather "the philosophical brain responds to an inconsistency or a gap in its knowledge".

In the Psychoanalytical literature Freud views curiosity as a derivative of the sex drive. The partial impulse of looking motivates the child's great interest in all things and all events that have to do with sexuality. Whereas the looking impulse and curiosity are primarily sexual in origin, the child's exploratory interest and desire for knowledge can be considered to be a by product of cognitive development. Due to social pressure, sexual exploration is later abandoned.

Blarer (1951) states that the inhibition of curiosity may result in different forms of pathological behaviors, such as depression, and higher levels of sensation seeking or thrill seeking behaviors. He proposed curiosity to be intrinsic to the individuals perceptions and world experiences and thus it is the basis for the intrinsic motivation viewpoint in curiosity theory.

Curiosity and Exploration

The impulse or desire to investigate, observe, or gather information, particularly when the material is novel or interesting. This drive appears spontaneously in nonhuman animals and in young children, who use sensory exploration and motor manipulation to inspect, bite, handle, taste, or smell practically everything in the immediate environment and motivation will compels an organism to examine its environment. The exploratory drive may be secondary to other drives, such as fear or hunger leading to exploration. Alternatively, exploratory behaviors may be a separate and independent drive also called as exploration drive.

Curiosity is defined as a need, thirst or desire for knowledge. The concept of curiosity is central to motivation. The term can be used as both a description of a specific behaviors as well as a hypothetical construct to explain the same behaviors.

Berlyne (1960) believes that curiosity is a motivational prerequisite for exploratory behaviors. The term curiosity is used both as a description of a specific behaviors as well as a hypothetical construct to explain the same behaviors. Exploration refers to all activities concerned with gathering information about the environment. It leads to the conflict and question of whether exploratory behaviors should be defined in terms of the movements that an animal or human performs while exploring or in terms of the goal or purpose of the behaviors observed. A clear distinction between these two may not always be possible.

Loewenstein (1994) points out four central issues of curiosity: definition and dimensionally, cause, voluntary exposure to curiosity and situational determinants. He adds a fifth issue of superficiality and intensity since he states that curiosity can arise, change focus or end abruptly. He believes that despite its transience, curiosity can be a powerful motivational force. "Curiosity often produces impulse behaviors and attempts at self control" (Loewenstein, 1994).

Theoretical Conceptions of Curiosity and Exploration

The postulation of an independent exploratory drive is based on the observation of the exploratory activities of animals in situations where there were no external stimuli to satisfy homeostatic drives (water or food). Nissen (1930) experimented with rats and defines exploratory behaviors in two ways

- An inborn exploratory drive
- Curiosity is a secondary or learned drive acquired through classical conditioning.

Berlyne (1954, 1960) thought that the aversive and drive reducing effect of deviations of the arousal potential from the individual's optimum level as the underlying mechanism of curiosity. Since then, he has come to believe that curiosity is externally stimulated, and that the curiosity drive is aroused by external stimuli specifically stimulus conflict. This encompasses complexity, novelty and surprise. He believed that in the short term, stimulus change and novelty is accompanied by physiological change. However, over longer periods of time, investigating behaviors are not accompanied by readily identifiable physiological changes. He also holds that exploratory behaviors serves to maintain or attain a medium to optimal activation level for the organism. In all cases where exploration takes place, arousal or desire is reduced. Fiske and Maddi (1961) hold a medium arousal level model and differentiate between the terms arousal and activation. They define arousal as "diverse manifestations of activation, such as muscle tone, heart rate, and increased sensitivity for stimuli". Their definition of activation is "the state of a catalytic and energizing mechanism in the central nervous system".

McReynolds bases his theories of exploratory behaviors on animal experiments. Motivational aspects of exploratory behaviors, for example: a living being is active in order to receive new perceptual information from its environment, as well as adaptive aspects, for example: a living being is in a situation of stimuli that it must regulate and adapt to.

Fowler's (1965) boredom based perspective interprets curiosity as a homeostatic drive (internally stimulated) since the curiosity drive seems to be both evoked and satisfied by the same stimuli. He attacked Berlyne by noting the inherent contradiction in the view that the curiosity drive was both evoked and satisfied by the same stimuli. Theorists that believe that curiosity is externally stimulated were "forced to ascribe both drive eliciting and reinforcing properties to the same stimuli namely the novel stimuli for which the animal responded" (Fowler,

1965). Fowler observed animals producing the exploration initiating response before, rather than after, exposure to the stimulus.

Hunt (1963) states that curiosity refers to a "motivation inherent in information processing" this means that curiosity is a mixture of cognition and motivation. The main principle, which is equally as important as the drive reduction hypothesis is the establishment and maintenance of an optimal amount of incongruence. Incongruence determines the strength, direction and affective qualities of behaviors.

Drive Theories

Drive theories differ on whether they view curiosity as a primary or secondary drive. Some research has shown that unsatisfied curiosity tends to intensify over some interval as do other drives such as hunger and thirst.

Curiosity has a motivated force that is stimulated internally (boredom) or by external stimuli. However, Hebb (1955) believes that curiosity seeking behaviors poses a paradox for drive based accounts of curiosity. "Drive is not simply a state the decrease of which is rewarding. At high levels the reduction of drive is rewarding, but at low levels, an increase may be rewarding" (Hebb, 1955).

Role of Homeostatic Drives to Curiosity

Harlow states that exploration is an example of human motivation that is independent from homeostatic drives. Harlow's non homeostatic intrinsic drive theory has been attacked by drive and learning theorists. Kreitler and Kreitler (1976) have changed positions from the basic assumption of drive theory to a more cognitive process in the development of exploratory behaviors.

Curiosity and Culture

Cultures generally vary both in attitudes towards exploration and information seeking as well as in the range of situations allowing the expression of the various manifestations of exploration and curiosity, this is especially true for the sensation seeking motive. Zuckerman (1994) defines sensation seeking as "the seeking of varied, novel, complex and intense sensations and experiences, and the willingness to take physical, social, legal, and financial risks for the sake of such experiences."

Boredom Proneness

Boredom proneness is commonly assessed and measured using self-report scales and questionnaires. The only full scale measure of boredom that has been extensively used to assess boredom proneness is the Boredom Proneness Scale. It takes boredom proneness to be the tendency to experience boredom in a wide range of situations (Farmer & Sundberg, 1986).

The boredom prone individual often and easily finds herself to be bored, even in situations that others, typically, find interesting and stimulating. Furthermore, she regularly becomes incapable of maintaining sustained attention, and interest in one's activities, she lacks excitement for, or can find no purpose in, what she is doing, and she easily becomes frustrated, restless, or weary by either stimuli poor or challenging situations (Farmer & Sunberg, 1986).

Boredom is at once both easy to identify and difficult to define. A small but growing collection of scientists has devoted their research to boredom, and some conceive of the state as a signal for change. Boredom indicates that a current activity or situation is not providing engagement or meaning so that the person can hopefully shift their attention to something more fulfilling.

Boredom proneness is positively correlated with depression and anxiety, anger and aggression, a lower tendency to engage in and enjoy thinking, a propensity to make mistakes in completing common tasks, poor interpersonal and social relationships, lower job and life satisfaction, problem gambling, and drug and alcohol abuse.

Boredom proneness ought to be distinguished from the state of boredom, i.e., the actual experience of boredom. Even though boredom proneness is predicated on the antecedent experience of boredom viz., one cannot be said to be prone to boredom if one never experienced boredom the very experience of boredom does not entail boredom proneness.

One can be in a state of boredom without one necessarily being prone to boredom. For instance, most of us experience boredom while waiting in line to pay for shopping, when bus or train is delayed, or when we have to endure the same conversation, lecture, or TV show over and over again. Often, boredom is situational: it is brought about by the unchallenging, monotonous, or repetitive situations in which an individual find himself (O'Hanlon, 1981). As a result, boredom can be allayed by a mere change in setting. Boredom, however, need not always be situational. Depending on our moods, desires, and attitudes, situations that are ostensibly meaningful and challenging could also bring about the state of boredom; conversely, situations

that are repetitive, monotonous, and utterly humdrum do not have to lead to the experience of boredom and Moody.

Causes

- Boredom may occur when the energy is not channeled into an outlet that provides meaning or fulfillment. But this encompasses a few key components. One is mental arousal, having energy an individual want to devote to something engaging. A second is difficulty concentrating on a single task. And a third is lack of control over one's surroundings, such as in a waiting room or lecture, in which one cannot redirect his/her attention to a different activity.
- Boredom is a catalyst for change and an opportunity for reflection. Therefore, the feeling may arise during a task that is not challenging or is extremely repetitive. It can emerge due to a lack of self awareness about what we find fulfilling. Personality traits also play a role - those prone to sensation seeking, extraversion, and novelty may be more likely to experience boredom.
- Some therapists who treat patients that constantly struggle with boredom believe that boredom may be due to masking emotional pain, such as a childhood trauma, which renders the person unaware of their true wants and needs. The person may also be under stimulated or navigating procrastination and anxiety.

Theoretical Discussion

The literary and philosophical history of boredom consists of a series of attempts to articulate boredom's distinctively negative nature. Boredom is thought to be disruptive and harmful, a great source of unhappiness and suffering and ultimately a state that hinders the development of one's intellectual, social and even moral capacities.

Significance and Values

First, boredom is informative: it tells us something both about the world and about ourselves. While bored, the situation is disclosed to us as unfulfilling, uninteresting, unchallenging, or non stimulating. On account of this disclosure, boredom also informs about the own goals, interests, and even self perceived well being. Being bored means that an individual is currently engaged not only in an uninteresting or unchallenging situation, but also in a situation that fails to meet the expectations and desires. Boredom is a state that is about oneself as much as it is about the world.

Second, and most importantly, the negative and aversive experience of boredom acts as a force that motivates an individual to pursue a goal that appears to him/her to be more stimulating, interesting, challenging, or fulfilling than the goal that s/he currently pursue.

In an episode of boredom, the current goal or situation is perceived as unpleasant and unappealing, often as devoid of meaning or significance; on the contrary, alternative goals and situations are made salient and appear to be attractive.

What alleviates boredom is not simply a change of activity. Rather, what alleviates boredom is a change from an uninteresting, unfulfilling, or non stimulating situation to one that is perceived by the agent to be satisfactory and in line with her plans and wishes.

Benefits of Boredom

- Boredom has the capacity to spark creative ideas and launch new projects. For children, boredom can propel new routes of play and self entertainment, which can help develop creativity, self reliance and relationship skills.
- As a motivator toward change, boredom can lead to new ideas, reflection, and creativity. It can fuel the search for novelty, including setting a new goal or embarking on a new adventure. In today's information loaded world, allowing oneself to step away from screens can also help alleviate stress.
- Boredom can provide unexpected opportunities for children to learn and grow. When children are bored, and responsible for entertaining themselves (without screens), they develop new ways to do that. They learn to tolerate uncertainty, exercise creativity, communicate with others, and negotiate conflict.
- In cultivating their own identity and preparing to leave home, adolescents may disavow everything they previously loved to make space for new interests, hobbies, and relationships. Frustration and confusion during this process can manifest in boredom. This can lead some teens to act out to relieve boredom or struggle internally with feelings of hopelessness or despair.

Motivation

Motivation is the process that initiates, guides, and maintains goal oriented behaviors. Motivation involves the biological, emotional, social and cognitive forces that activate behaviors. In everyday usage, the term "motivation" is frequently used to describe why a person does something. It is the driving force behind human actions.

Motivation does not just refer to the factors that activate behaviors; it also involves the factors that direct and maintain these goal directed actions (though such motives are rarely directly observable). As a result, we often have to infer the reasons why people do the things that they do based on observable behaviors.

Types of Motivation

Different types of motivation are frequently described as being either extrinsic or intrinsic: Extrinsic motivations are those that arise from outside of the individual and often involve rewards such as trophies, money, social recognition, or praise. Intrinsic motivations are those that arise from within the individual, such as doing a complicated crossword puzzle purely for the personal gratification of solving a problem.

Uses of Motivation

There are many different uses for motivation. It serves as a guiding force for all human behaviors, but understanding how it works and the factors that may impact it can be important in a number of ways. Understanding motivation can

- Help to improve the efficiency of people as they work toward goals
- Help people take action
- Encourage people to engage in health oriented behaviors
- Help people avoid unhealthy or maladaptive behaviors such as risk taking and addiction
- Help people feel more in control of their lives
- Improve overall well being and happiness

Impact of Motivation

Anyone who has ever had a goal (like wanting to lose 20 pounds or run a marathon) probably immediately realizes that simply having the desire to accomplish something is not enough. Achieving such a goal requires the ability to persist through obstacles and endurance to keep going in spite of difficulties. There are three major components of motivation: activation, persistence, and intensity.

Activation involves the decision to initiate behaviors, such as enrolling in a Psychology class.

Persistence is the continued effort toward a goal even though obstacles may exist. An example of persistence would be taking more Psychology courses in order to earn a degree although it requires a significant investment of time, energy, and resources.

Intensity can be seen in the concentration and vigour that goes into pursuing a goal. For example, one student might coast by without much effort, while another student will study regularly, participate in discussions, and take advantage of research opportunities outside of class. The first student lacks intensity, while the second pursues their educational goals with greater intensity.

History of Motivation

Throughout history, Psychologists have proposed different theories to explain what motivates human behaviors. The following are some of the major theories of motivation.

Instincts

The instinct theory of motivation suggests that behaviors are motivated by instincts, which are fixed and inborn patterns of behaviors. Psychologists including William James, Sigmund Freud, and William McDougall have proposed a number of basic human drives that motivate behaviors. Such instincts might include biological instincts that are important for an organism's survival such as fear, cleanliness, and love.

Drives and Needs

Many of the behaviors such as eating, drinking, and sleeping are motivated by biology, a biological need for food, water, and sleep. Therefore, an individual is motivated to eat, drink, and sleep. Drive theory suggests that people have basic biological drives and that behaviors are motivated by the need to fulfill these drives.

Arousal Levels

The arousal theory of motivation suggests that people are motivated to engage in behaviors that help them maintain their optimal level of arousal. A person with low arousal needs might pursue relaxing activities such as reading a book, while those with high arousal needs might be motivated to engage in exciting, thrill seeking behaviors, such as motorcycle racing.

Situational Motivation

Situational motivation refers to the motivation individuals experience when they are currently engaging in an activity. It refers to the here and now of motivation (Vallerand, 1997).

Self Determination Theory

Situational motivation refers to the motivation individuals experience when they are currently engaging in an activity. It refers to the here and now of motivation (Vallerand, 1997).

According to self-determination theory, different types of motivation underlie human behaviors. These types of motivation are posited to differ in their inherent levels of self-determination. It involves a true sense of choice, a sense of feeling free in doing what one has chosen to do. Listed on a continuum from high to low levels of self determination, these motivations are intrinsic motivation, extrinsic motivation, and amotivation.

Different types of extrinsic motivations have been proposed by self determination theory that can also be ordered along the continuum. From lower to higher levels of self determination, these are external and identified regulations. External regulation occurs when behaviors is regulated by rewards or in order to avoid negative consequences. That is, regardless of whether the goal of behaviors is to obtain rewards or to avoid sanctions, the individual experiences an obligation to behave in a specific way. In contrast, identified regulation occurs when a behaviors is valued and perceived as being chosen by oneself. Yet, the motivation is still extrinsic because the activity is not performed for itself but as a means to an end.

Besides intrinsic and extrinsic motivation, Deci and Ryan (1985) have proposed a third motivational concept namely, amotivation, to fully understand human behaviors. When amotivated, individuals experience a lack of contingency between their behaviors and outcomes. Their behaviors are neither intrinsically nor extrinsically motivated. Amotivated behaviors are the least self determined because there is no sense of purpose and no expectations of reward or possibility of changing the course of events. Amotivation can thus be seen as similar to learned helplessness where the individual experiences feelings of incompetence and expectancies of uncontrollability.

According to self determination theory, these four types of motivation are differently related to various types of outcomes. Indeed, because these motivations differ in their inherent levels of it and it has been hypothesized to be associated with enhanced psychological functioning, one would expect intrinsic motivation to be mostly associated with positive outcomes (e.g., persistence) followed by identified regulation. In contrast, the most negative outcomes (e.g., depressive states) will stem from amotivation followed by external regulation. These findings have been obtained with several outcomes in various life contexts.

In addition, it postulates that the needs for competence, autonomy, and relatedness are central concepts to understand the initiation and regulation of behaviors. Competence implies a need for having an effect, for being effective in one's interactions with the environment. The

need for autonomy is defined as a sense of feeling free from pressures and to have the possibility to make choices among several courses of action. Lastly, relatedness refers to interpersonal attachments and a bond developed between individuals, and is based on a fundamental striving for contact with others.

It also analyzes the effects of social factors in terms of their meaning for a person's feelings of competence, autonomy, and relatedness. That is, a social context that offers people the possibility to satisfy their basic needs will lead to self-determined types of motivation (i.e., intrinsic motivation and identified regulation) whereas events that thwart these needs will produce non self-determined types of motivation (i.e., external regulation and amotivation). For instance, some studies have shown that negative feedback is associated with a decrease in perceptions of competence and intrinsic motivation.

Need for the study

As we are moving to a changing lifestyle, it is very important to be aware of what is happening around us. An individual's arousal of curiosity helps him to explore more things that happen around him. Boredom proneness is a general tendency to experience boredom of all types and it is associated with various problematic behaviors and mental health issues. The situational motivation refers to the "here and now" of motivation, which represents the motivation experienced while engaged in a particular activity. Hence, this study investigates the role of curiosity and exploration and how it influences an individual's boredom proneness and situational motivation which helps an individual to know about their level of curiosity and exploration, boredom proneness and situational motivation to make changes in their life to lead better lifestyle.

CHAPTER II

REVIEW OF LITERATURE

Langevin (1971) analyzed that curiosity was multifaceted by comparing test of specific curiosity, test of reactive curiosity, teacher ratings of curiosity, berlyne figures interest in complexity test, and the experiential curiosity measures which consist of 3 scores, diversive curiosity, exploration time, and number of questions. The Otis Quick Scoring Mental Abilities Test, Beta Test Form A and The Raven Standard Progressive Matrices were also included to determine if the curiosity measures were distinct from IQ. The data for 195 6th grade boys and girls were intercorrelated and subjected to maximum likelihood factor analysis. Two weak curiosity factors emerged, breadth of interest and depth of interest curiosity. On the whole, the curiosity measures were distinct from intelligence but were also distinct from one another.

Voss and Keller (1986) examined the development of curiosity. Study 1 examined the development of individual differences in exploratory behaviour from birth until school age among children from 18 families. Study 2 investigated the changing patterns of exploratory behaviour in infancy (13–49 mo) among children from 44 families. Results underline the importance of the general principles of cognitive functioning that change over time (developmental milestones). A process model of exploration play is outlined, and correlates of interindividual differences are reported.

Loewenstein (1994) reviewed and reinterpreted the Psychology of Curiosity. It had undergone 2 waves of intense activity such as in the 1st, in the 1960s, focused mainly on Curiosity's Psychological Underpinnings. The 2nd, in the 1970s and 1980s, was characterized by attempts to measure curiosity and assess its dimensionality. It reviews these contributions with a concentration on the 1st wave. It is argued that theoretical accounts of curiosity proposed during the 1st period fell short in 2 areas: They did not offer an adequate explanation for why people voluntarily seek out curiosity, and they failed to delineate situational determinants of curiosity. Furthermore, these accounts did not draw attention to, and thus did not explain, certain salient characteristics of curiosity: its intensity, transience, association with impulsivity, and tendency to disappoint when satisfied. A new account of curiosity was offered that attempts to address these shortcomings. The new account interprets curiosity as a form of cognitively induced deprivation that arises from the perception of a gap in knowledge or understanding.

Renner (2006) developed Questionnaire to assess social curiosity, in order to assess how other people, think, feel and behave. The sample population consisted of 312 participants to whom, 10 item Social Curiosity Scale was administered. Factor analyses yielded of 2 factors: General Social Curiosity and Covert Social Curiosity. Convergent validity was drawn by moderately high correlations of the Social Curiosity Scale with other measures of curiosity, whereas discriminant validity was demonstrated by low correlations of the Social Curiosity Scale with personality traits such as neuroticism and agreeableness. In addition, social interaction anxiety was observed to facilitate covert social curiosity and general social curiosity was inhibited.

Chak (2007) reviewed about curiosity was a characteristic often observed in young children, it was not received much academic interest in recent years. Among its many dimensions, the epistemic nature of curiosity, or the quest for knowledge, deserves attention. To explore the potential application of 'epistemic curiosity', it is important to understand how lay conceptions complement theoretical conceptualizations. As people who were significant in organizing children's environment, how teachers and parents view curiosity was essential to how they will respond to the manifestation of this characteristic in children. A questionnaire was developed to examine teachers' and parents' conception of children's curiosity and exploratory behaviour and whether they value this characteristic. The participants of this study were preschool teachers and parents with a preschool age child. The findings indicated that the participants had positive view toward curiosity and exploration and that teacher were more willing than parents to encourage this characteristic in young children. A factor analysis indicated that teachers' and parents' conceptualization of curiosity was multidimensional, showing some similarities with theoretical conceptualization

Kashdan and Steger (2007) examined whether Trait Curiosity, State Curiosity and other everyday behaviours stay as a medium for achieving and maintaining high levels of well being and meaning in life. Ninety seven college students were participated to whom Curiosity and Exploration Inventory (Kashdan et al., 2004), Meaning in Life Questionnaire (Steger et al. 2006), Positive and Negative Affect Schedule (Watson et al., 1988), Satisfaction with Life Scale (Diener et al., 1985) and Big Five Personality Traits (Brady & Enrichman, 1997) distributed and predictions were tested using 21 daily diary reports. Greater Trait Curiosity and Greater Day Curiosity also predicted greater persistence of meaning in life from one day into the next. Results

suggested that curiosity effects were not attributable to Big Five Personality Traits or Daily Positive or Negative Mood and, it provided support for curiosity as an ingredient in the development of well being and meaning in life.

Kashdan et al. (2009) reviewed the development, factor structure, and psychometrics of the Curiosity and Exploration Inventory – II. Three hundred and eleven undergraduate students were used as a study population administered with Acceptance and Action Questionnaire – II (Bond et al.), Emotion Regulation Questionnaire (Gross & John, 2003), Berkeley Expressivity Questionnaire (Gross & John, 1995), and Difficulties in Emotion Regulation Scale (Gratz & Roemer, 2004). Applying Item Response Theory, it showed that the items had good discrimination and a desirable breadth of difficulty. The results indicated that the scale assesses the mid range of the latent curiosity trait most reliably and finding thus far provide good evidence for the psychometric properties of the 10 items Curiosity and Exploration Inventory–II. Spielberger and Starr (2012) investigated the environment are characteristic of the behaviour of higher organisms; curiosity is generally regarded as the motivational determinant that energizes these exploratory behaviours. Both curiosity and exploration have been linked to a variety of related motivational constructs such as drives, motives, need for stimulus change, intrinsic motivation, etc. (Voss & Keller, 1983). Although many investigators have devoted their efforts to research on curiosity and exploratory behaviour, the literature continues to be characterized by diverse theoretical views and contradictory empirical findings. The goals were to review theory and research on curiosity and exploratory behaviour, and to examine the measures of these constructs as emotional states and personality traits. Theoretical conceptions of curiosity and exploratory behaviour were briefly reviewed in the first section. The second section presents an optimal stimulation/dual process theory of curiosity and anxiety. The measurement of state and trait curiosity was considered in the third section. Finally, the findings of research on the measurement of curiosity and the effects of curiosity and anxiety on classroom behaviour were reported.

Kidd et al. (2015) Curiosity is a basic element of our cognition, but its biological function, mechanisms, and neural underpinning remain poorly understood. It is nonetheless a motivator for learning, influential in decision-making, and crucial for healthy development. One factor limiting our understanding of it is the lack of a widely agreed upon delineation of what is and is not curiosity. Another factor is the dearth of standardized laboratory tasks that manipulate

curiosity in the lab. Despite these barriers, recent years have seen a major growth of interest in both the Neuroscience and Psychology of curiosity. In this Perspective, they advocated for the importance of the field, provide a selective overview of its current state, and described tasks that were used to study curiosity and information seeking. They proposed that, rather than worry about defining curiosity, it was more helpful to consider the motivations for information seeking behaviour and to study it in its ethological context.

Oudeyer et al. (2016) studied the bidirectional causal interactions between curiosity and learning and discusses how understanding these interactions can be leveraged in educational technology applications. First, recent results showed how state curiosity, and more generally the experience of novelty and surprise, enhanced learning and memory retention. Then, discussed about how Psychology and Neuroscience conceptualized curiosity and intrinsic motivation, studied how the brain can be intrinsically rewarded by novelty, complexity, or other measures of information. They explained how the framework of computational reinforcement learning can be used to model such mechanisms of curiosity. They discussed about the Learning Progress hypothesis, which posits a positive feedback loop between curiosity and learning. They outlined experiments with robots that showed how Learning Progress driven attention and exploration can self-organize a developmental learning curriculum scaffolding efficient acquisition of multiple skills/tasks. Finally, they discussed about the recent work exploiting these conceptual and computational models in educational technologies, showing in particular how intelligent tutoring systems can be designed to foster curiosity and learning.

Pathak et al. (2017) reviewed on Curiosity driven exploration by self-supervised prediction. In many real world scenarios, rewards extrinsic to the agent were extremely sparse, or absent altogether. In such cases, curiosity can serve as an intrinsic reward signal to enable the agent to explore its environment and learn skills that might be useful later in its life. They formulated curiosity as the error in an agent's ability to predict the consequence of its own actions in a visual feature space learned by a self-supervised inverse dynamics model. The formulation scales to high dimensional continuous state spaces like images, bypasses the difficulties of directly predicting pixels, and, critically, ignores the aspects of the environment that cannot affect the agent. The proposed approach was evaluated in two environments: VizDoom and Super Mario Bros. Three broad settings were investigated: sparse extrinsic reward, where curiosity allows for far fewer interactions with the environment to reach the goal;

exploration with no extrinsic reward, where curiosity pushes the agent to explore more efficiently; and generalization to unseen scenarios (eg new levels of the same game) where the knowledge gained from earlier experience helps the agent explore new places much faster than starting from scratch.

Zhelo et al. (2018) investigated exploration strategies of Deep Reinforcement Learning methods to learn navigation policies for mobile robots. The researchers augmented the normal external reward for training Deep Reinforcement Learning algorithms with intrinsic reward signals measured by curiosity. They tested their approach in a mapless navigation setting, where the autonomous agent was required to navigate without the occupancy map of the environment, to targets whose relative locations can be easily acquired through low cost solutions (e.g., visible light localization, Wi-Fi signal localization). Validation drawn that the intrinsic motivation was crucial for improving Deep Reinforcement Learning performance in tasks with challenging exploration requirements. The results showed that the proposed method was able to more effectively learn navigation policies, and had better generalization capabilities in previously unseen environments.

Schijndel et al. (2018) investigated how individual differences in 7 to 9 year olds' curiosity related to the inquiry learning process and outcomes in environments differing in structure. Sample consisted of 139 children recruited from four primary schools were administered the Scientific Discovery Task (inquiry based learning), Raven's (1965) Coloured Progressive Matrices (Intelligence), and the Underwater Exploration Game (Jirout & Klahr, 2012; Curiosity). The results showed that curiosity was positively related to learning outcomes but not positively related to the learning process; tentatively suggested the need for educators to provide structure to the low curious group's inquiry learning environment by focusing on reflection on performed experiments.

Schwartenbeck et al. (2019) examined curiosity and goal directed behaviour under computational mechanisms. The aim was to identify how different types of information gain emerge when casting behaviour as surprise minimisation. The study presented two distinct mechanisms for goal directed exploration that express separable profile of active sampling to reduce uncertainty. 'Hidden state' exploration motivates agents to sample unambiguous observations to accurately infer the (hidden) state of the world. Conversely, 'model parameter' exploration, compels agents to sample outcomes associated with high uncertainty, if they were

informative for their representation of the task structure. The research illustrated the emergence of these types of information gain, termed active inference and active learning, and showed how these forms of exploration induce distinct patterns of ‘Bayes optimal’ behaviour. The findings provided a computational framework for understanding how distinct levels of uncertainty systematically affect the exploration exploitation tradeoff in decision making.

Gruber and Ranganath (2019) studied whether Curiosity plays a fundamental role for learning and memory and how the neural mechanisms that stimulate curiosity and its effect on memory. Accumulating evidence suggested that curiosity states were related to modulations in activity in the dopaminergic circuit and that these modulations impact memory encoding and consolidation for both targets of curiosity and incidental information encountered during curiosity states. To account for this evidence, the study proposed the Prediction, Appraisal, Curiosity, and Exploration (PACE) framework, which attempts to explain curiosity and memory in terms of cognitive processes, neural circuits, behaviour, and subjective experience. The PACE framework generated testable predictions that can stimulate future investigation of the mechanisms underlying curiosity related memory enhancements.

Schutte and Malouff (2020) investigated the connections between three dimensions of curiosity, namely joyous exploration related curiosity, knowledge deprivation sensitivity, and stress tolerance. Fifty seven participants, with a mean age of 35, engaged in the novel task of designing a water conservation program. Participants judged their experience of designing the program on scales that assessed their curiosity and flow during the activity. Two raters independently coded each participant’s program description on creativity, and the mean of the two ratings produced the creativity score for that participant. Higher joyous exploration curiosity, knowledge deprivation sensitivity, and tolerance of stress were all associated with more flow. More experience of flow, as judged by participants after engaging in the activity, was significantly associated with greater creativity. Even though the direct relationships between curiosity and creativity did not reach statistical significance, flow linked each of the dimensions of curiosity with creativity. These findings provided a basis for programs intended to increase flow or creativity.

Ten et al. (2021) prepared a research on whether learning progresses in humans via curiosity driven exploration. Curiosity driven learning is foundational to human cognition. By enabling humans to autonomously decide when and what to learn, curiosity has been argued to

be crucial for self organizing temporally extended learning curricula. However, the mechanisms driving people to set intrinsic goals, when they are free to explore multiple learning activities, are still poorly understood. Computational theories proposed different heuristics, including competence measures (eg, percent correct) and learning progress, that could be used as intrinsic utility functions to efficiently organize exploration. Such intrinsic utilities constituted computationally cheap but smart heuristics to prevent people from labouring in vain on unlearnable activities, while still motivating them to self challenge on difficult learnable activities. Here, they provided empirical evidence for these ideas by means of a free choice experimental paradigm and computational modelling. They showed that while humans rely on competence information to avoid easy tasks, models that include a learning progress component provide the best fit to task selection data. These results bridge the research in artificial and biological curiosity, reveal strategies that were used by humans but had not been considered in computational research, and introduce tools for probing how humans become intrinsically motivated to learn and acquire interests and skills on extended time scales.

Blaszczynski, McConaghy and Frankova (1990) analyzed that pathological gamblers seek stimulation as a means of reducing aversive underaroused states of boredom and/or depression, the Beck Depression Inventory, Zuckerman's Sensation Seeking Scale and a Boredom Proneness Scale were administered to 48 diagnosed pathological gamblers and a control group of 40 family physician patients. Analyses of variance showed pathological gamblers obtained significantly higher boredom proneness and depression scores than those of controls. That the Boredom Proneness Scale failed to correlate with the Zuckerman Boredom Susceptibility subscale suggested the two measure differing dimensions. Results indicated the possible existence of three subtypes of pathological gamblers, one group characterized by boredom, another by depression, and a third by a mixture of both depression and boredom.

Vodanovich and Kass (1990) investigated the factor structure of the Boredom Proneness Scale. Previous research on boredom indicated the existence of at least five factors that comprise this construct. Data from 385 participants on the Boredom Proneness scale items were analyzed through a principal components factor analysis with a varimax rotation in which five factors were requested. The results supported the hypothesis that boredom proneness, and therefore the Boredom Proneness scale, consists of at least five factors that were conceptually similar to those

discussed in the literature. The findings were discussed in terms of how they provided more precise measurement of the construct, and how this would have had implications for counselling, education, and industry.

Vodanovich, Verner and Gilbride (1991) studied about Boredom proneness and its relationship to positive and negative affect. One hundred and seventy undergraduate students completed the Boredom Proneness Scale by Farmer and Sundberg and the Multiple Affect Adjective Checklist by Zuckerman and Lubin. Significant negative relationships were found between boredom proneness and negative affect scores (i.e., Depression, Hostility, Anxiety). Significant positive correlations also obtained between boredom proneness and positive affect (i.e., Positive Affect, Sensation Seeking). The correlations between boredom proneness “subscales” and positive and negative affect were congruent with those obtained using total boredom proneness scores.

Watt (1991) examined attribution differences in boredom, the effect of Boredom Proneness on perception of time passage was investigated in 110 undergraduates completing a tedious number circling task. Highly boredom prone individuals perceived time as passing more slowly during the task than low boredom prone persons, but the two groups did not differ in their objective or chronometric time passage estimates. The findings supported the contention that depressed affect produces a subjective slowing of time but does not alter the perception of objective passage of chronometric time.

Watt and Vodanovich (1992) investigated on relationship between boredom proneness and impulsiveness among 381 undergraduates. A significant positive correlation of 0.56 obtained between boredom proneness and impulsivity. Significant positive associations were also found between scores on boredom proneness and impulsiveness subscales.

Leong and Schneller (1993) examined the relationships between cognitive and personality variables to boredom proneness. Buss and Plomin's four separate dimensions of temperament (Emotionality, Activity, Sociability, and Impulsivity) was used as the operationalization of personality. It was also hypothesized that persons with a higher degree of cognitive inflexibility would be higher on boredom proneness. To assess this hypothesis, the relationship of boredom proneness to a measure of cognitive flexibility (Rokeach's Dogmatism Scale) was also investigated. The sample ($n = 132$) consisted of 39% male and 61% female undergraduate students enrolled in Psychology courses at Midwestern University in the U.S.

Participants were administered three questionnaires: the Boredom Proneness Scale, Rokeach Dogmatism Scale and Easi-III Temperament Survey. The results of the current study identified certain 'risk factors' related to boredom proneness. Individuals who were highly dogmatic, less sociable, and exhibit low levels of persistence, tempo, and who experienced many problems with inhibitory control of impulses were more prone to boredom.

Sawin and Scerbo (1995) examined the effects of instruction type and boredom proneness (BP) on vigilance performance, workload, and boredom. Subjects completed the Boredom Proneness Scale and were assigned to high and low groups based on their scores. They then monitored a VDT for critical signals. Half the subjects were instructed to detect "critical" flickers (detection emphasis), and the remaining subjects were instructed to relax but to respond to any flickers observed (relaxation emphasis). Subjects also provided pre and post vigil ratings of workload, stress, and boredom. A performance decrement was observed for all conditions. Low boredom proneness subjects outperformed high boredom proneness subjects and reported less boredom. Thus, the results from the present study provided evidence for the long sought, elusive link between trait boredom and performance in vigilance. In addition, subjects who received relaxation emphasis instructions reported lower workload, frustration, and stress for the vigil than did those receiving detection emphasis instructions.

Gordon, Wilkinson, McGown and Jovanoska (1997) examined the construct, convergent and divergent, and predictive validity of R. Farmer and N. Sundberg's (1986) Boredom Proneness Scale. Subjects consisted of 139 males and 206 females who were either undergraduates or employees. The construct validity of the scale was examined through a confirmatory factor analysis and the multidimensional nature of boredom proneness was confirmed. However, the underlying factor structure proposed by SJ Vodanovich and SJ Kass (1990) was only partially supported. Convergent and divergent validity were examined through correlational techniques. The expanded version of the Positive and Negative Affect Schedule and a modified form of the Eysenck Personality Questionnaire was used to evaluate extraversion and neuroticism. It was found that boredom was positively related to negative affect and negatively related to positive affect. Neuroticism was positively related to boredom proneness. The predicative validity of the scale was examined experimentally. It was hypothesized that individuals with high scores on the boredom proneness scale reported higher levels of boredom than others; this was confirmed.

Oluwagbohunmi and Olabisi (2019) examined the influence of deviant behaviour on academic performance of students in selected junior secondary schools in Ondo State, Nigeria. The study was carried out to determine whether deviant behaviours would have negative influence on students' academic performance or not by Descriptive Survey. The population comprised all junior secondary school students (500) in Ondo State were drawn from ten public junior secondary schools selected from two local government areas using simple random sampling technique. A self designed questionnaire titled 'Influence of Deviant Behaviours on Academic Performance Questionnaire (IDBAPQ)' and an inventory of students results were the instruments used for the study. The questionnaire was validated and reliability test carried out yielded 0.85 coefficients. Data were analysed with frequency and percentages while Pearson Product Moment Correlation was used for the hypothesis at 0.05 level of significance. The study showed that there was no statistically significant relationship between deviant behaviour and academic performance of secondary school students. It was therefore recommended that effort should be made by teachers to intensify teaching of morals and acceptable norms of the school and society in order to ensure that deviant behaviour is minimised.

Watt and Vodanovich (1999) analyzed the Boredom Proneness and Psychosocial Development. The effect of boredom proneness as measured by the Boredom Proneness Scale (R. F. Farmer & N. D. Sundberg, 1986) on college students' psychosocial development was investigated via the Student Developmental Task and Lifestyle Assessment (R. B. Winston, T. K. Miller, & J. S. Prince, 1995). Low boredom prone students had significantly higher scores on the following Student Developmental Task and Lifestyle Assessment measures: career planning, lifestyle planning, peer relationships, educational involvement, instrumental autonomy, emotional autonomy, interdependence, academic autonomy, and salubrious lifestyle.

Sommers and Vodanovich (1999) examined the relationship between boredom proneness and health symptom reporting. Undergraduate students ($N = 200$) completed the Boredom Proneness Scale and the Hopkins Symptom Checklist. A multiple analysis of covariance indicated that individuals with high boredom proneness total scores reported significantly higher ratings on all five subscales of the Hopkins Symptom Checklist (Obsessive Compulsive, Somatization, Anxiety, Interpersonal Sensitivity, and Depression). The results suggested that boredom proneness may be an important element to consider when assessing symptom reporting.

Harris (2000) investigated the relationships between boredom proneness, mood monitoring, mood labeling, and tendency to experience flow; and explored some qualitative, phenomenological aspects of boredom. College students (N= 170) responded to an anonymous questionnaire containing the Boredom Proneness Scale (Farmer & Sundberg, 1986), the Mood Awareness Scale (Swinkels & Giuliano, 1995), a measure of flow proneness, and questions about the experience of boredom. As predicted, Boredom Proneness was positively correlated with mood monitoring, negatively correlated with mood labeling, and negatively correlated with flow. Respondents provided interesting information about their perceptions of boredom, its causes, and their strategies for coping with and planning for boring situations. A majority of participants described positive aspects of boredom, and 10% volunteered that they were never bored.

Dahlen, Martin, Ragan and Kuhlman (2005) investigated the potential contribution of sensation seeking, impulsiveness, and boredom proneness to driving anger in the prediction of aggressive and risky driving. Two hundred and twenty four college students completed measures of trait driving anger, aggressive and risky driving, driving anger expression, sensation seeking, impulsiveness, and boredom proneness. Findings provided additional support for the utility of the Driving Anger Scale (Deffenbacher, J.L., Oetting, E.R., Lynch, R.S., 1994) in predicting unsafe driving. In addition, hierarchical multiple regression analyses demonstrated that sensation seeking, impulsiveness, and boredom proneness provided incremental improvements beyond the Driving Anger Scale in the prediction of crash related conditions, aggressive driving, risky driving, and driving anger expression. Results supported the use of multiple predictors in understanding unsafe driving behaviour.

Isacescu, Struk and Danckert (2017) reviewed Boredom proneness was linked to various forms of cognitive and affective dysregulation including poor self control and mind wandering (MW), as well as depression and aggression. As such, understanding boredom and the associated cognitive and affective components of the experience, represents an important first step in combatting the consequences of boredom for psychological well being. They surveyed 1928 undergraduate students on measures of boredom proneness, self control, mind wandering, depression and aggression to investigate how these constructs were related. Hierarchical regression analysis indicated that self control operated as a strong negative predictor of boredom proneness. Finally, when controlling for age and self control, they observed large decreases in

the magnitudes of the relationships between boredom proneness and other measures of interest. Together, these results implied a strong relationship between boredom proneness and cognitive and affective dysregulation, and showed that individual levels of self control can account for the lion's share of variance in the relationships between boredom, cognition, and affect.

Tam, Tilburg and Chan (2021) examined whether boredom proneness represents individual differences in (a) the frequency of getting bored, (b) the intensity of boredom, and/or (c) a holistic perception of life being boring (perceived life boredom). Across Study 1 (U.S. Sample, $N = 495$; HK Sample, $N = 231$) and Study 2 ($N = 608$), they tested the construct validity of boredom proneness by estimating its association with measures of the three possible characterizations (convergent validity), and examined to what extent associations between boredom proneness and variables relevant to well being (e.g., life satisfaction, psychological distress) could be reproduced with the three potential characterizations (concurrent validity). Results suggested that each of the three characterizations represents some aspect of boredom proneness, and they generally reproduced boredom proneness' associations with other variables. Among them, perceived life boredom had the strongest convergent and concurrent validity. The findings provided novel insights into the characterization of boredom proneness and its hitherto poorly understood relationship with psychological well being.

Zuckerman, Ball and Black (1990) evaluated the current relationship between the trait of sensation seeking and smoking as possibly mediated by gender, cognitive risk appraisal and situational relevant motivation. Subject were 1071 male and female undergraduates of whom 279 indicated they were past or current smokers and completed a Smoking Questionnaire (SQ). All subjects took the Sensation Seeking Scale. Sensation seeking was significantly ($p < .001$) related to the proportion smoking in both men and women, although more women at the university were now smoking. Sensation seekers inhaled more of the smoke than lows, perhaps an indication of stronger nicotine need. Smoking was seen as highly risky, but the degree of estimated risk was not related to sensation seeking. Women reported smoking more in emotional and social situations; men reported smoking more in situations requiring close attention to a task. Sensation seekers reported smoking more than lows in social situations.

Martin, Chesebro and Mottet (1997) investigated whether instructors with different socio communicative styles differed in their students' perceptions of their credibility and their students' Situational motivation. Students ($N = 260$) completed a questionnaire on the

class/instructor had immediately before their current class. The questionnaire consisted of measures of assertiveness, responsiveness, credibility, and situational motivation. Instructors with the socio communicative style of competent were perceived highest in all three dimensions of credibility (expertise, character, and caring) and in students' situational motivation. Instructors classified as noncompetent were perceived as lowest in caring and expertise, while instructors classified as aggressive were perceived as lowest in character. Additionally, situational motivation was positively correlated to all three dimensions of credibility. The results supported the importance of instructors being able to display assertive and responsive communication behaviors.

Guay, Vallerand and Blanchard (2000) developed and validated a situational (or state) measure of motivation, the Situational Motivation Scale (SIMS). The Situational Motivation Scale was designed to assess the constructs of intrinsic motivation, identified regulation, external regulation, and amotivation (E. L. Deci & R. M. Ryan, 1985, 1991) in field and laboratory settings. Five studies were conducted to develop and validate the Situational Motivation Scale. Overall, results showed that the Situational Motivation Scale was composed of 4 internally consistent factors. The construct validity of the scale was also supported by correlations with other constructs as postulated by current theories. Moreover, the Situational Motivation Scale was responsive to experimental induction as evidenced by data gathered through a laboratory study. In sum, the Situational Motivation Scale represented a brief and versatile self report measure of situational intrinsic motivation, identified regulation, external regulation, and amotivation.

Standage and Treasure (2002) suggested that task and ego achievement goal orientations affect students' intrinsic motivation in physical education. It assessed intrinsic motivation as a unidimensional construct, however, which was inconsistent with the more contemporary postulates of self determination theory (Deci & Ryan, 1985, 1991) which states that intrinsic motivation was only one type of motivation. It was not addressed whether different types of motivation at the situational level were influenced by the proneness to adopt task or ego involvement.

Parish and Treasure (2003) analyzed the influence of perceptions of the motivational climate and perceived ability on situational motivation and the physical activity behaviour of 213 male and 229 female adolescent physical education students (M age= 12.56 years; SD = 0.96)

was examined over a 3 day period. A significant age by gender interaction emerged, with physical activity declining from the sixth to eighth grade. The decline was more pronounced among female than male students. Perceptions of a mastery climate were strongly related to more self determined forms of situational motivation. In contrast, perceptions of a performance climate were strongly related to less self determined forms of situational motivation. Results of a hierarchical regression analysis revealed gender, perceived ability, and perceptions of a mastery climate to explain a significant amount of variance in physical activity. The findings suggested that promoting a mastery oriented motivational climate in physical education will foster self determined situational motivation and physical activity.

Standage, Duda, Treasure and Prusak (2003) assessed the reliability, presence of a proposed simplex pattern (construct validity), factorial validity, and multisample invariance of the Situational Motivation Scale (Guay, Vallerand, & Blanchard, 2000). In Study 1, data were collected from three physical activity samples. After establishing internal consistencies for all scales, bivariate and interfactor correlations were calculated and the results supported a simplex pattern across samples. The Situational Motivation Scale factorial validity across the three samples was tested via confirmatory factor analysis. Based on modification indices and theoretical justification, the Situational Motivation Scale was reduced to a 14 items model and the multisample invariance of this solution was examined. Results supported partial invariance. In Study 2, a total of 1,008 female PE students responded to the Situational Motivation Scale under two experimental conditions. Internal consistency and the assumed simplex pattern were again supported. Finally, the results of multi sample confirmatory factor analysis were consistent with the proposed post hoc model respecifications suggested in Study 1, supporting partial invariance.

Ratelle, Baldwin and Vallerand (2005) examined the hypothesis that situational (or state) motivation can generalize from one situation to another via activation by associated cues. In an experimental setting, a neutral cue (a computer tone sequence) was paired repeatedly with controlling feedback. They assessed the effect of presenting this conditioned cue during a subsequent task on participants' motivation for that novel task. In two studies they found evidence that cued activation of controlledness significantly undermined participants' self determined motivation toward this subsequent task. These findings demonstrated that subtle cues, including contextual primes, can influence people's motivational state.

Conroy, Kaye and Coatsworth (2006) tested a model of social cognitive influences on situational motivation (i.e., youths' reasons for participating in sport at a given moment in time) via youths' 2 × 2 achievement goals. Boys and girls ($N = 165$) participating in a summer swim league completed measures of their achievement goals and situational motivation on multiple occasions during a 6 week period; they also rated the coaching climate at the end of the season. All Situational Motivation Scale responses exhibited acceptable levels of longitudinal factorial invariance. Latent growth curve analyses revealed that intrinsic motivation and identified regulation did not appear to change over the course of the season; however, external regulation and amotivation increased significantly during that period. Youths' perceptions of an avoidance oriented coaching climate predicted corresponding residualized change in their own achievement goals over the season. Additionally, residualized change in youths' mastery avoidance goals (i.e., focus on avoiding self referenced incompetence) was positively linked to the rate at which external regulation and amotivation scores changed.

Blanchard, Mask, Vallerand, Sablonnière and Provencher (2007) analysed the hypothesized reciprocal top down (TD) and bottom up (BU) relationships between motivation at one given level and motivation at the next adjacent level in Vallerand's. The postulates were examined in two studies, whereby the dynamic interplay between motivation toward a specific life domain (i.e., contextual) and the motivation experienced during a specific point in time (i.e., situational) was examined. In Study 1, a sample of collegiate basketball players ($N=162$) were followed during two games at a pre season tournament. Reciprocal top down and bottom up effects between athletes' contextual motivation toward their sport and the situational motivation they experienced during their games were expected. The influence of situational factors such as perceptions of personal and team performance on situational motivation was also examined. Results from path analyses provided support for the hypotheses. Study 2 ($N=150$) replicated the findings of Study 1 which followed athletes during an entire basketball season. Reciprocal top down and bottom up effects between athletes' contextual motivation toward their sport and the situational motivation they experienced during games of each half of the season were observed. Moreover, contextual motivation assessed at the end of the season predicted athletes' sustained interest in their sport. Results from Study 2, also provided support for the mediating role of psychological need satisfaction on the relationship between situational factors such as

perceptions of personal and team performance on athletes' situational motivation experienced during games.

Sinelnikov, Hastie and Prusak (2007) examined the motivational responses of students during participation in a season of Sport Education, particularly in the skill practice, officiating, and game play phases of the season. Two classes of sixth grade students and three classes of ninth grade students ($n = 103$) participated in a semester long physical education Sport Education unit. Situational motivation was assessed using the Situational Motivation Scale. While the sixth grade students were more self determined during all phases of Sport Education, all students exhibited high levels of intrinsic motivation and low levels of no motivation or amotivation with no gender or context differences.

Lavigne and Vallerand (2010) identified some of the psychological processes through which changes in contextual motivation toward science courses can occur in line with the hierarchical model of intrinsic and extrinsic motivation (Vallerand, 1997), it is proposed that much of the changes in contextual motivation toward science were induced by repeated changes in situational motivation toward science related activities. Furthermore, situational motivation itself was determined by one's contextual motivation. Finally, contextual science motivation should predict intentions of taking future science classes and pursuing a science career. Participants were high school students engaged in science courses. A longitudinal design with 5 measurement time points was used. Overall, the results of structural equation modeling analyses supported the hypotheses.

Lonsdale, Sabiston, Taylor and Ntoumanis (2011) evaluated within a cross cultural context, the psychometric properties of scores derived from the Perceived Locus of Causality Questionnaire and the Situational Motivation Scale. Both questionnaires were grounded in self determination theory and were commonly employed in physical education research. Secondary school students from the United Kingdom ($n = 300$, mean age = 13.71) and Hong Kong ($n = 342$, mean age = 15.34 years) completed both questionnaires prior to a physical education lesson. Internal consistency analyses, as well as single and multi group confirmatory factor analyses produced evidence that largely supported the reliability and validity of Perceived Locus of Causality Questionnaire and Situational Motivation Scale scores in the United Kingdom sample. However, the analyses indicated some areas of concern regarding the internal consistency of the external and introjected regulation Perceived Locus of Causality

Questionnaire items in the Hong Kong sample. Also, identified regulation and intrinsic motivation constructs were not distinguishable by youth in either culture in either questionnaire. Finally, compared with the United Kingdom, students in Hong Kong interpreted the Situational Motivation Scale external regulation items to be more self determined.

Gillet, Vallerand, Lafreniere and Bureau (2013) proposed and test an integrative model on the role of positive and negative affect as mediators of the situational motivation performance relationship. Specifically, the hypothesized model posits that autonomous motivation predicts positive affect, while controlled motivation and amotivation both lead to negative affect. In addition, amotivation negatively predicts positive affect. In turn, positive and negative affect positively and negatively predict performance, respectively. The model was confirmed in three studies using correlational (Studies 1 and 2) and experimental designs (Study 3) with a cognitive task (anagrams). In addition, the role of individual differences (Study 2) and situational factors (Study 3) as triggers of the “Motivation Affect Performance” sequence was confirmed.

Gao, Podlog and Huang (2013) examined the relationships between children's situational motivation and physical activity levels in a Dance Dance Revolution programme, and perceived physical activity enjoyment. A sample of 215 elementary children participated in a weekly 30 minutes Dance Dance Revolution programme. Children's situational motivation toward Dance Dance Revolution (intrinsic motivation, identified regulation, external regulation, and amotivation) was measured, followed by the measurement of their accelerometer determined moderate to vigorous physical activity in Dance Dance Revolution. Children then reported their physical activity enjoyment. Only intrinsic motivation was positively related with children's moderate to vigorous physical activity in Dance Dance Revolution and physical activity enjoyment. However, other motivational beliefs were not significantly related to moderate to vigorous physical activity and physical activity enjoyment. Regression analyses further suggested intrinsic motivation was the significant predictor for moderate to vigorous physical activity and physical activity enjoyment.

Trémeau, Goldman, Antonius and Javitt (2013) established that individuals with schizophrenia were less active and engaged than healthy control subjects, and motivation deficits were considered a core symptom of the disease. However, it remains unclear if schizophrenia individuals perceive themselves as less motivated than others, and there was a scarcity in research examining the relationship between perceived motivation, psychopathology and

personality traits. Eighty six inpatients with schizophrenia and 45 non patient control participants completed the Motivation and Energy Inventory, which consists of Global Motivation, Social Motivation and Situational Motivation. Participants also completed personality questionnaires and an affective evocative task. Compared to controls, schizophrenia participants reported lower situational motivation, and comparable global and social motivation. Situational motivation was negatively predicted by negative temperament, affective ambivalence and depression level. The results were consistent with the idea that schizophrenia individuals were not impaired in their motivational disposition but lack energy during the implementation of their goals. It reflected impairment in the prediction, maintenance and/or modulation of required effort and energy during goal directed actions, and was predicted by some affective processes. Improving situational motivation may be an effective therapeutic approach in people with schizophrenia.

Sekścińska, Maison and Trzcińska (2016) examined the relationship between people's chronic promotion and prevention motivational system and their propensity to invest, undertake investment risks, and assume financial risks in gambling tasks in both the gain and loss decision making frame. Moreover, they investigated how chronic motivational systems confronted with situationally induced promotion and prevention motivation would affect people's propensity to invest and embrace financial risks. Two CAWI studies on a Polish national representative sample (N1 = 1093; N2 = 1096) were conducted. The second study consisted of two waves with a two weeks break. The studies provided evidence of higher chronic promotion motivation as well as higher prevention motivation associated with the propensity to invest; however, induced promotion motivation results in a lower propensity to invest compared to induced prevention motivation. Participants with an activated promotion system built more risky portfolios than individuals with an induced prevention system. Moreover, participants with a low chronic promotion system built more risky portfolios than individuals with a high promotion motivation system as long as their prevention system was also low. In terms of gambling decisions in both the gain and loss frame, a higher level of chronic promotion motivation and situationally induced promotion motivation were related to the preference for the non sure option over the sure one.

Altintas, Karaca, Moustafa and Haj (2020) investigated the immediate effect of a Best Possible Self (BPS) intervention to enhance positive affect, situational academic motivation and academic commitment in a university context. A large sample of 176 French undergraduate students participated in the study. An experimental group ($n = 88$) performed a "Best Possible

Self' intervention that consisted of mentally thinking of the ideal academic future life. A control group ($n = 88$) was recruited to read neutral information during the same time. They evaluated positive and negative affect, situational academic motivation, and academic commitment. A comparison between the experimental and control group revealed significantly higher levels of positive affect, self determined situational motivation, and academic commitment in the experimental group than in the control group. The results suggested that future positive thinking may be used to enhance situational academic motivation, and academic commitment in students, with a pivotal role for positive affect. Finally, the Best Possible Self intervention effect on motivation was fully mediate by positive affect.

CHAPTER III

Method

The present study was carried out involving the following steps:

- Objectives
- Hypotheses
- Area
- Sample
- Tools
- Procedure
- Analysis of data

Objectives

- To find out the correlation between Curiosity and Exploration, Boredom Proneness and Situational Motivation
- To find out the difference between males and females in Curiosity and Exploration, Boredom Proneness and Situational Motivation

Null Hypotheses

H1: There will be no significant relationship between Curiosity and Exploration, Boredom Proneness and Situational Motivation.

H2: There will be no significant difference between males and females in Curiosity and Exploration, Boredom Proneness and Situational Motivation.

Area

The study was carried out in various places in Nilgiris and Coimbatore. The reason for selecting this area as follows:

- Availability of participants in the selected area
- Willingness and cooperation of the young adults
- The permission from the authorities

Sample

Two hundred and thirty two young adults in the age range of 19 to 29 were selected by random sampling method.

Inclusion criteria

- Young adults of men and women in the age group of 19-29 were included.
- Young literate adults are included.
- Willingness to participate.

Exclusion criteria

- Participants who have cognitive impairment that would influence their ability to understand the process are excluded
- Participants whose age does not meet the criteria are excluded
- Participants who are not interested to take part of this research are excluded

Tools

- Curiosity and Exploration Inventory constructed
- Boredom Proneness Scale
- Situational Motivation Scale

Curiosity and Exploration Inventory

It was constructed by Kashdan et al (2009) consists of 10 item scale with two factors: the motivation to seek out knowledge and new experiences (Stretching) and a willingness to embrace the novel, uncertain, and unpredictable nature of everyday life (Embracing). To evaluate construct validity, exploratory factor analysis (EFA) was used to assess factor structure and confirmatory factor analysis (CFA) was used to evaluate the structural model fit of the CEI-II. Cronbach's alpha for the internal consistency of the overall CEI-II is 0.77. The ICC for the test-retest reliability ranged between 0.75 to -0.83. Exploratory factor analysis showed adequate with the Kaiser-Meyer-Olkin value of 0.86 and the Bartlett's test of sphericity was statistically significant. The CEI-II had good internal reliability and shows moderately large positive relationships with intrinsic motivation, reward sensitivity, openness to experience, and subjective vitality.

Boredom Proneness Scale

It was constructed by Famer and Sunberg (1986) consists of 28 items which is designed to measure the tendency or disposition to boredom. Boredom Proneness is a useful measure for assessing boredom and then keeping track of changes over time as a result of intervention programs. The Boredom Proneness scale has good internal consistency, with an alpha of 0.79. The scale also has very good stability, with a one week test-retest correlation of 0.83. It has very good construct validity, correlating in predicted ways with self rating of boredom, lack of interest in the classroom, the job Boredom Scale, the Beck Depression Inventory, the Center for Epidemiological studies - Depression Scale, the Hopelessness Scale, the Perceived Effort Scale, the UCLA Loneliness Scale, the Life Satisfaction Index and two subscales of the General Causality Orientations Scale.

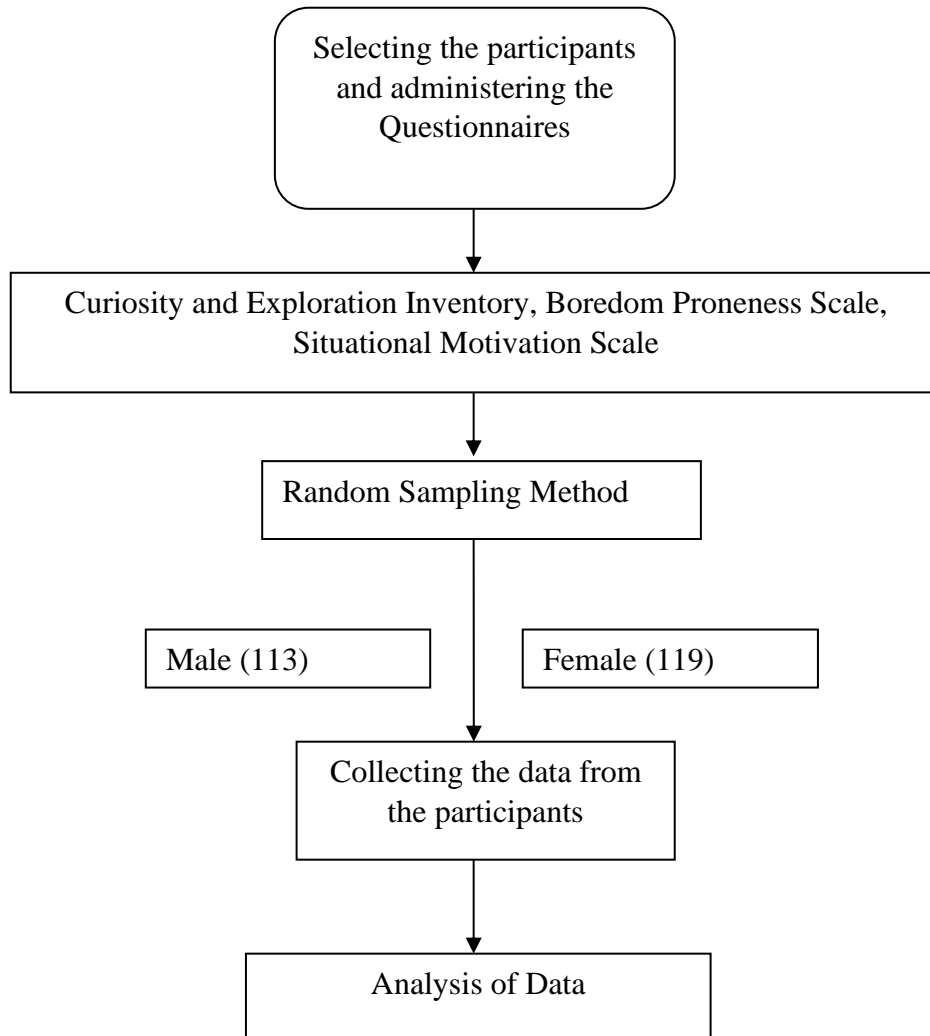
Situational Motivation Scale

It was constructed by Guay et al (2000) consists of 16 items was developed to assess the constructs of intrinsic motivation, identified regulation, external regulation, and amotivation. Confirmatory factor analysis was used to evaluate the construct validity of the scale. There exists a positive and high correlations among the subscales. The reliability of the scale was determined with Cronbach alpha. The internal consistency estimates for these four sub scales were found 0.79 for intrinsic motivation, 0.73 for identified regulation, 0.77 for external regulation, and 0.79 for amotivation.

Institutional Humans Ethics Committee

The project entitled on Curiosity and Exploration, Boredom Proneness and Situational Motivation among Young Adults was submitted to Institutional Human Ethics Committee and the Approval Number is AUW/IHEC/A.PSY-21-22/XPD-17.

Flow Chart



Analysis of Data

The data was analyzed statistically using SPSS 21 version. Mean, Standard Deviation ANOVA and Product Moment Correlation were used.

CHAPTER IV

RESULTS AND DISCUSSION

The results for the study on “Curiosity and Exploration, Boredom Proneness and Situational Motivation among Young Adults” are given below. The sample consists of 232 young adults aged between 19 to 29 years among which 113 of them are males and 119 are females. The data was analysed using SPSS software. The results are tabulated and discussed below

Table I

Sociodemographic of the participants

		Number	Percent
Gender	Male	113	49
	Female	119	51

Table I shows the outline of the demographic data of the participants. In this study 113 males and (49%) and 119 females participated (51%).

Table II**Relationship between Curiosity and Exploration, Boredom Proneness and Situational Motivation among Young Adults**

Variables		Curiosity and Exploration	Boredom Proneness	Situational Motivation
Curiosity and Exploration	Pearson correlation	1	0.29 **	0.86 **
	Sig (2-tailed)		0	0
Boredom Proneness	Pearson correlation	0.29 **	1	0.24 **
	Sig (2-tailed)	0	0	
Situational Motivation	Pearson correlation	0.86 **	0.24 **	1
	Sig (2-tailed)	0	0	

** = **Correlation is significant at 0.01 level**

Table II shows the relationship between curiosity and exploration, boredom proneness and situational motivation among young adults and it was significant at 0.01 level. The findings indicated that there exists a significant relationship between the three variables. Curiosity is the impulse or desire to investigate, observe, or gather information, particularly when the material is novel or interesting. Exploratory drive is the motivation that compels an organism to examine its environment. Boredom proneness is the tendency to experience boredom in a wide range of situations. Situational motivation is the motivation experienced while engaged in a particular activity. While pursuing certain task, if a person gets bored in it then the situation would tend to induce the person into some other job with some amount of curiosity to undertake that duty which paves way to explore novel aspects in that directed task. Hence the hypothesis 1 stating that **“There will be no significant relationship between Curiosity and Exploration, Boredom Proneness and Situational Motivation among Young Adults”** is rejected.

Table III
Mean and Standard Deviation for Male and Females in Curiosity and Exploration,
Boredom Proneness and Situational Motivation among Young Adults

	Gender	N	Mean	Standard Deviation
Family Type	Males	113	1.69	0.46
	Females	119	1.75	0.43
Stretching	Males	113	17.26	3.67
	Females	119	17.99	3.85
Embracing	Males	113	16.12	3.84
	Females	119	16.25	3.58
Boredom Proneness	Males	113	14.15	3.06
	Females	119	13.43	3.69
Intrinsic Motivation	Males	113	17.44	4.77
	Females	119	17.42	5.48
Identified Regulation	Males	113	18.14	5.05
	Females	119	19.08	5.99
External Regulation	Males	113	18.14	5.05
	Females	119	19.08	5.99
Amotivation	Males	113	15.61	4.78
	Females	119	14.43	5.57

Table III shows mean and standard deviation for males and females in curiosity and exploration, boredom proneness and situational motivation among young adults. The mean values clearly indicate that there was not much difference in the family type, stretching and embracing, intrinsic motivation between males and females. The mean value shows slight differences in boredom proneness, identified regulation, external regulation and amotivation between males and females.

TABLE IV

F value for the family type of the sample population, Curiosity and Exploration (Stretching), Curiosity and Exploration (embracing), Boredom Proneness, Intrinsic Motivation, Identified regulation, External regulation and Amotivation

		Sum of Squares	df	Mean Squares	F
Family type	Between groups	0.253	1	0.253	1.26N.S.
	Within groups	46.092	230	0.200	
	Total	46.345	231		
Stretching	Between groups	30.559	1	30.559	2.15N.S.
	Within groups	3271.027	230	14.222	
	Total	3301.586	231		
Embracing	Between groups	0.953	1	0.953	0.07N.S.
	within groups	3172.702	230	13.794	
	Total	3173.655	231		
Boredom	Between groups	30.241	1	30.241	2.62N.S.
	Within Groups	2658.410	230	11.558	
	Total	2688..651	231		
Intrinsic Motivation	Between groups	0.029	1	0.029	0.01N.S.
	within groups	6100.868	230	26.526	
	Total	6100.897	231		
Identified Regulation	Between Groups	51.481	1	51.481	1.67N.S.
	Within Groups	7096.894	230	30.856	
	Total	7148.375	231		

	Between	51.481	1	51.481	1.67N.S.
	Groups				
External	Within Groups	7096.894	230	30.856	
Regulation	Total	7148.375	231		
	Between	81.047	1	81.047	2.99N.S.
	Groups				
Amotivation	Within groups	6235.914	230	27.113	
	Total	6316.961	231		

N.S. = Not Significant

Table IV shows gender differences between male and female in different family types in curiosity and exploration, boredom proneness and situational motivation. The F values indicates that there was no significant difference among male and female young adults in family type, stretching, embracing, boredom proneness, intrinsic motivation, identified regulation, external regulation and amotivation. As a collaborative variable, Curiosity and Exploration is the combination of motivation to acquire new knowledge and new experiences and a willingness to embrace the novelty, uncertainty, and unpredictable nature of everyday life. The curiosity and exploration level may stay grounded; gradually increase or decrease depends upon the stimulus surrounded by the individuals like where one lives, what kind of access is available to an individual. The environmental stimulus stays as a crucial factor to determine the curiosity and exploratory drive of the person and to try different tasks and activities, acquire new skills, having an adventure in life etc., the environment may serves as a tool to induce or choose the curiosity and exploration level of the person but gender does not. Boredom proneness is a widespread and significant problem faced by both females and males of all ages. It has been associated with drug use, overeating, truancy in schools, maladjustments, job satisfaction, and poor functioning on the job or academics. Situation motivation is something lively, which determines the boredom like whether an individual to pursue the same for the long run. With the assistance of intrinsic motivation, identified regulation, external regulation and amotivation the curiosity can be led. Situational motivation has the positive relationship with curiosity and exploration and proneness to boredom. Hence the Hypothesis 2 stating that, **“There will be no significant difference**

between males and females in Curiosity and Exploration, Boredom Proneness and Situational Motivation” is accepted

CHAPTER V

SUMMARY AND CONCLUSION

A study on Curiosity and Exploration, Boredom Proneness and Situational Motivation among Young Adults was carried out involving following objectives

- To find out the correlation between Curiosity and Exploration, Boredom Proneness and Situational Motivation
- To find out the difference between males and females in Curiosity and Exploration, Boredom Proneness and Situational Motivation

Null Hypotheses

H1: There will be no significant relationship between Curiosity and Exploration, Boredom Proneness and Situational Motivation.

H2: There will be no significant difference between males and females in Curiosity and Exploration, Boredom Proneness and Situational Motivation.

The study was conducted in the Nilgiris and Coimbatore by Simple Random Sampling Method. Two hundred and thirty two young adults in the age group of 19 to 29 years were selected and administered by Curiosity and Exploration Inventory (Kashdan et al., 2000), Boredom Proneness Scale (Famer, R. & Sunberg, N. D., 1986) and Situational Motivation Scale (Guay et al., 2000). The participants were requested to fill each statement according to the instructions provided in the respective questionnaires. The data was analysed using SPSS (Statistical Package for the Social Science). Statistical methods such as Pearson correlation, ANOVA and descriptive statistic were used to find the results of the study.

Conclusion

From this research study the following conclusion has been arrived.

- There was significant relationship between Curiosity and Exploration, Boredom Proneness and Situational Motivation among Young Adults.
- There was no significant difference between males and females in Curiosity and Exploration, Boredom Proneness and Situational Motivation

Implications

- This study showed that Curiosity and Exploration is strongly correlated with Situational Motivation, thus one can be motivated in various aspects of life like academics, sports, career etc. in order to improve their curiosity depending upon the individual circumstances.
- Steps can be taken such as engaging in routine activities like meditation, exercise, yoga, time management to reduce the level of boredom in young adults.

Limitations

- The sample consisted of only in the age group of 19-29 and the participants were only from Nilgiris and Coimbatore.
- Only literate young adults were included.
- Self report questionnaires were used, which raise concern regarding social desirability.

Suggestions for the research

- Other variables like Emotional Intelligence, Emotional Regulation, Creativity, Imagination, Interest, Aspiration, Attitudes, Achievement Motivation can be studied among adolescents in order to assess the effects and impact on Curiosity.

- Samples can also be collected from various rural and urban areas to assess their level of difference in Curiosity and Exploration, Boredom Proneness and Situational Motivation.

References

- Altintas, E., Karaca, Y., Moustafa, A., & El Haj, M. (2020). Effect of Best Possible Self Intervention on Situational Motivation and Commitment in Academic Context. *Learning and Motivation*, 69, Retrieved from <https://doi.org/10.1016/j.lmot.2019.101599>
- Amy Chak (2007) Teachers' and Parents' Conceptions of Children's Curiosity and Exploration, *International Journal of Early Years Education*, 15:2, 141-159, retrieved from :DOI: 10.1080/09669760701288690
- Blanchard, C. M., Mask, L., Vallerand, R. J., de la Sablonnière, R., & Provencher, P. (2007). Reciprocal Relationships Between Contextual and Situational Motivation in a Sport Setting. *Psychology of Sport and Exercise*, 8(5), 854-873. Retrieved from <https://doi.org/10.1016/j.psychsport.2007.03.004>
- Blaszczynski, A., McConaghy, N., & Frankova, A. (1990). Boredom Proneness in Pathological Gambling. *Psychological reports*, 67(1), 35-42. Retrived from <https://doi.org/10.2466%2Fpr0.1990.67.1.35>
- Britta Renner (2006) Curiosity About People: The Development of a Social Curiosity Measure in Adults, *Journal of Personality Assessment*, 87:3, 305-316, Retrieved from: 10.1207/s15327752jpa8703_11
- Conroy, D. E., Kaye, M. P., & Coatsworth, J. D. (2006). Coaching Climates and the Destructive Effects of Mastery Avoidance Achievement Goals on Situational Motivation. *Journal of Sport and Exercise Psychology*, 28(1), 69-92. Retrieved from <https://doi.org/10.1123/jsep.28.1.69>
- Dahlen, E. R., Martin, R. C., Ragan, K., & Kuhlman, M. M. (2005). Driving Anger, Sensation Seeking, Impulsiveness, and Boredom Proneness in the Prediction of Unsafe Driving. *Accident Analysis & Prevention*, 37(2), 341-348. Retrieved from :<https://doi.org/10.1016/j.aap.2004.10.006>

- Gao, Z., Podlog, L., & Huang, C. (2013). Associations among Children's Situational Motivation, Physical Activity Participation, and Enjoyment in an Active Dance Video Game. *Journal of Sport and Health Science*, 2(2), 122-128. Retrieved from <https://doi.org/10.1016/j.jshs.2012.07.001>
- Gillet, N., Vallerand, R. J., Lafreniere, M. A. K., & Bureau, J. S. (2013). The Mediating Role of Positive and Negative Affect in the Situational Motivation Performance Relationship. *Motivation and Emotion*, 37(3), 465-479. Retrieved from <https://doi.org/10.1007/s11031-012-9314-5>
- Gruber, M. J., & Ranganath, C. (2019). How Curiosity Enhances Hippocampus Dependent Memory: the Prediction, Appraisal, Curiosity, and Exploration (PACE) Framework. *Trends in cognitive sciences*, 23(12), 1014-1025. Retrieved from <https://doi.org/10.1016/j.tics.2019.10.003>
- Guay, F., Vallerand, R. J., & Blanchard, C. (2000). On the Assessment of Situational Intrinsic and Extrinsic Motivation: The Situational Motivation Scale (SIMS). *Motivation and Emotion*, 24(3), 175-213. Retrieved from: <https://doi.org/10.1023/A:1005614228250>
- Harris, M. B. (2000). Correlates and Characteristics of Boredom Proneness and Boredom 1. *Journal of Applied Social Psychology*, 30(3), 576-598. Retrieved from :<https://doi.org/10.1111/j.1559-1816.2000.tb02497.x>
- Isacescu, J., Struk, A. A., & Danckert, J. (2017). Cognitive and Affective Predictors of Boredom Proneness. *Cognition and Emotion*, 31(8), 1741-1748. Retrieved from: <https://doi.org/10.1080/02699931.2016.1259995>
- Kashdan, T. B., Gallagher, M. W., Silvia, P. J., Winterstein, B. P., Breen, W. E., Terhar, D., & Steger, M. F. (2009). The Curiosity and Exploration Inventory-II: Development, Factor Structure, and Psychometrics. *Journal of Research in Personality*, 43(6), 987–998. Retrieved from: <https://doi.org/10.1016/j.jrp.2009.04.011>
- Kashdan, T.B., Steger, M.F. Curiosity and Pathways to Well Being and Meaning in Life: Traits, States, and Everyday Behaviors. *Motiv Emot* 31, 159–173 (2007). Retrieved from [:https://doi.org/10.1007/s11031-007-9068-7](https://doi.org/10.1007/s11031-007-9068-7)

- Kidd, C., & Hayden, B. Y. (2015). The Psychology and Neuroscience of Curiosity. *Neuron*, 88(3), 449–460. Retrieved from :<https://doi.org/10.1016/j.neuron.2015.09.010>
- Langevin, R. (1971). Is Curiosity a Unitary Construct? *Canadian Journal of Psychology/Revue canadienne de psychologie*, 25(4), 360–374. Retrieved from: <https://doi.org/10.1037/h0082397>
- Lavigne, G. L., & Vallerand, R. J. (2010). The Dynamic Processes of Influence Between Contextual and Situational Motivation: A Test of the Hierarchical Model in a Science Education Setting. *Journal of Applied Social Psychology*, 40(9), 2343-2359. Retrieved from <https://doi.org/10.1111/j.1559-1816.2010.00661.x>
- Leong, F. T., & Schneller, G. R. (1993). Boredom Proneness: Temperamental and Cognitive Components. *Personality and individual differences*, 14(1), 233-239. Retrieved from [https://doi.org/10.1016/0191-8869\(93\)90193-7](https://doi.org/10.1016/0191-8869(93)90193-7)
- Loewenstein, G. (1994). The Psychology of Curiosity: A Review and Reinterpretation. *Psychological Bulletin*, 116(1), 75–98. Retrieved from: <https://doi.org/10.1037/0033-2909.116.1.75>
- Lonsdale, C., Sabiston, C. M., Taylor, I. M., & Ntoumanis, N. (2011). Measuring Student Motivation for Physical Education: Examining the Psychometric Properties of the Perceived Locus of Causality Questionnaire and the Situational Motivation Scale. *Psychology of Sport and Exercise*, 12(3), 284-292. Retrieved from <https://doi.org/10.1016/j.psychsport.2010.11.003>
- Martin, M. M., Chesebro, J. L., & Mottet, T. P. (1997). Students' Perceptions of Instructors' Socio Communicative Style and the Influence on Instructor Credibility and Situational Motivation. *Communication Research Reports*, 14(4), 431-440. Retrieved from [:https://doi.org/10.1080/08824099709388686](https://doi.org/10.1080/08824099709388686)
- Oudeyer, P. Y., Gottlieb, J., & Lopes, M. (2016). Intrinsic Motivation, Curiosity, and Learning: Theory and Applications in Educational Technologies. *Progress in brain research*, 229, 257-284. Retrieved from <https://doi.org/10.1016/bs.pbr.2016.05.005>
- Parish, L. E., & Treasure, D. C. (2003). Physical Activity and Situational Motivation in Physical Education: Influence of the Motivational Climate and Perceived Ability. *Research Quarterly for*

Exercise and Sport, 74(2), 173-182. Retrieved from
<https://doi.org/10.1080/02701367.2003.10609079>

Ratelle, C. F., Baldwin, M. W., & Vallerand, R. J. (2005). On the Cued Activation of Situational Motivation. *Journal of Experimental Social Psychology*, 41(5), 482-487. Retrieved from
<https://doi.org/10.1016/j.jesp.2004.10.001>

Sawin, D. A., & Scerbo, M. W. (1995). Effects of Instruction Type and Boredom Proneness in Vigilance: Implications for Boredom and Workload. *Human factors*, 37(4), 752-765. Retrieved from, <https://doi.org/10.1518%2F001872095778995616>

Schutte, N. S., & Malouff, J. M. (2020). Connections Between Curiosity, Flow and Creativity. *Personality and Individual Differences*, 152, 109555. Retrieved from
<https://doi.org/10.1016/j.paid.2019.109555>

Schwartenbeck, P., Passecker, J., Hauser, T. U., FitzGerald, T. H., Kronbichler, M., & Friston, K. J. (2019). Computational Mechanisms of Curiosity and Goal Directed Exploration. *Elife*, 8, e41703. Retrieved from <https://doi.org/10.7554/eLife.41703>

Sekścińska, K., Maison, D. A., & Trzcińska, A. (2016). How People's Motivational System and Situational Motivation Influence their Risky Financial Choices. *Frontiers in Psychology*, 7, Retrieved from 1360. <https://doi.org/10.3389/fpsyg.2016.01360>

Sinelnikov, O. A., Hastie, P. A., & Prusak, K. A. (2007). Situational Motivation During Seasons of Sport Education. *The ICHPER-SD Journal of Research in Health, Physical Education, Recreation, Sport & Dance*, 2(1), 43. Retrieved from
<https://www.proquest.com/openview/b3f6568c1e5d351fbc96e97b79a5abd1/1?pq-origsite=gscholar&cbl=276233>

Sommers, J., & Vodanovich, S. J. (2000). Boredom Proneness: Its Relationship to Psychological and Physical Health Symptoms. *Journal of Clinical Psychology*, 56(1), 149-155. Retrieved from
[:https://doi.org/10.1002/\(SICI\)1097-4679\(200001\)56:1%3C149::AID-JCLP14%3E3.0.CO;2-Y](https://doi.org/10.1002/(SICI)1097-4679(200001)56:1%3C149::AID-JCLP14%3E3.0.CO;2-Y)

- Standage, M., & Treasure, D. C. (2002). Relationship among Achievement Goal Orientations and Multidimensional Situational Motivation in Physical Education. *British Journal of Educational Psychology*, 72(1), 87-103. Retrieved from <https://doi.org/10.1348/000709902158784>
- Standage, M., Duda, J. L., Treasure, D. C., & Prusak, K. A. (2003). Validity, Reliability, and Invariance of the Situational Motivation Scale (SIMS) across Diverse Physical Activity Contexts. *Journal of Sport and Exercise Psychology*, 25(1), 19-43. Retrieved from <https://doi.org/10.1123/jsep.25.1.19>
- Tam, K. Y., Van Tilburg, W. A., & Chan, C. S. (2021). What is Boredom Proneness? A Comparison of Three Characterizations. *Journal of Personality*, 89(4), 831-846. Retrieved from <https://doi.org/10.1111/jopy.12618>
- Ten, A., Kaushik, P., Oudeyer, P. Y., & Gottlieb, J. (2021). Humans Monitor Learning Progress in Curiosity Driven Exploration. *Nature communications*, 12(1), 1-10.
- Trémeau, F., Goldman, J., Antonius, D., & Javitt, D. C. (2013). Inpatients with Schizophrenia Report Impaired Situational Motivation but Intact Global and Social Motivation. *Psychiatry Research*, 210(1), 43-49. Retrieved from <https://doi.org/10.1016/j.psychres.2013.05.031>
- van Schijndel, T. J., Jansen, B. R., & Raijmakers, M. E. (2018). Do Individual Differences in Children's Curiosity Relate to Their Inquiry Based Learning?. *International Journal of Science Education*, 40(9), 996-1015. Retrieved from <https://doi.org/10.1080/09500693.2018.1460772>
- Vodanovich, S. J., & Kass, S. J. (1990). A Factor Analytic Study of the Boredom Proneness Scale. *Journal of Personality Assessment*, 55(1-2), 115-123. Retrieved from <https://doi.org/10.1080/00223891.1990.9674051>
- Vodanovich, S. J., Verner, K. M., & Gilbride, T. V. (1991). Boredom Proneness: Its Relationship to Positive and Negative Affect. *Psychological Reports*, 69(3_suppl), 1139-1146. Retrieved from <https://doi.org/10.2466%2Fpr0.1991.69.3f.1139>
- Voss, H.-G., & Keller, H. (1986). Curiosity and Exploration: A Program of Investigation. *German Journal of Psychology*, 10(4), 327-337.

- Watt, J. D. (1991). Effect of Boredom Proneness on Time Perception. *Psychological reports*, 69(1), 323-327. Retrieved from <https://doi.org/10.2466%2Fpr0.1991.69.1.323>
- Watt, J. D., & Vodanovich, S. J. (1992). Relationship Between Boredom Proneness and Impulsivity. *Psychological reports*, 70(3), 688-690. Retrieved from <https://doi.org/10.2466%2Fpr0.1992.70.3.688>
- Watt, J. D., & Vodanovich, S. J. (1999). Boredom Proneness and Psychosocial Development. *The Journal of Psychology*, 133(3), 303-314. Retrieved from [:https://doi.org/10.1080/00223989909599743](https://doi.org/10.1080/00223989909599743)
- Zhelo, O., Zhang, J., Tai, L., Liu, M., & Burgard, W. (2018). Curiosity Driven Exploration for Mapless Navigation with Deep Reinforcement Learning. *arXiv preprint arXiv:1804.00456*. Retrived from <https://doi.org/10.48550/arXiv.1804.00456>
- Zuckerman, M., Ball, S., & Black, J. (1990). Influences of Sensation Seeking, Gender, Risk Appraisal, and Situational Motivation on Smoking. *Addictive behaviors*, 15(3), 209-220. Retrieved from [:https://doi.org/10.1016/0306-4603\(90\)90064-5](https://doi.org/10.1016/0306-4603(90)90064-5)

Annexure I
Consent Form

Use of questionnaires for adults

You are being invited to take part in a research study. Before you decide to participate in this study, it is important that you understand why the research is being done and what it will involve. Please take the time to read the following information carefully. Please ask the researcher if there is anything that is not clear or if you need more information. The purpose of the research is to study **Curiosity and Exploration, Boredom Proneness and Situational Motivation among Young Adults.**

Study Procedure

You will be given three tests of paper-pencil type along with socio demographic profile. You need to respond to all the items in the tests. There is no risk in undertaking the study. There will be no direct benefits to you for your participation in this study. Your responses to the question will be anonymous and kept confidential. Your participation in this study is voluntary. It is up to you to decide whether or not to take part in this study. If you decide to take part in this study, you will be asked to sign this form. You are free to withdraw at any time and without giving any reason. There are no costs to you for your participation in this study.

Consent

“By signing this consent form, I confirm that I have read and understood the information and have the opportunity to ask questions. I understand that my participation is voluntary and I am free to withdraw at any time, without giving a reason and without cost. I voluntarily agree to take part in this study conducted by Ms. P. Swathy (20PAP023), II M.Sc., Applied Psychology.

Name of the participant :

Signature :

Place :

Date :

Annexure II

Sociodemographic Status Profile

Name

Age

Gender M/F

Education

Occupation

Marital Status Married/ Unmarried

Socioeconomic Status

Area Rural/ Semi Urban/ Urban

Family Nuclear/ Joint

I assure that the data collected will be used only for the study and will not be used for any other purposes and confidentiality will be maintained throughout and even after the study.

Annexure III

The Curiosity and Exploration Inventory – II

Instructions

Rate the statements below for how accurately they reflect the way you generally feel and behave. Do not rate what you think you should do, or wish you do, or things you no longer do, please be as honest as possible.

Items 1, 3, 5, 7, and 9 reflect stretching.

Items 2,4,6,8, and 10 reflect embracing. Items are anchored on the following scale **1= very slightly or not at all; 2= a little; 3=moderately; 4= quite a bit; 5= extremely**

1. I actively seek as much information as I can in new situations.
2. I am the type of person who really enjoys the uncertainty of everyday life.
3. I am at my best when doing something that is complex or challenging.
4. Everywhere I go, I am out looking for new things or experiences.
5. I view challenging situations as an opportunity to grow and learn.
6. I like to do things that are a little frightening.
7. I am always looking for experiences that challenge how I think about myself and the world.
8. I prefer jobs that are excitingly unpredictable.
9. I frequently seek out opportunities to challenge myself and grow as a person.
10. I am the kind of person who embraces unfamiliar people, events, and places.

Annexure IV

Boredom Proneness Scale

Instructions

Put an "X" below "T" (True) Or "F" (False) according to your own life situation

S.no	Statements	True	False
1	It is easy for me to concentrate on my activities.	T	F
2	Frequently when I am working, I find myself worrying about other things.	T	F
3	Time always seems to be passing slowly.	T	F
4	I often find myself at "loose ends," not knowing what to do.	T	F
5	I am often tracked in situations where I have to do meaningless things.	T	F
6	Having to look at some one's home movies or travel slides bores me tremendously.	T	F
7	I have projects in mind all the time, things to do.	T	F
8	I find it easy to entertain myself.	T	F
9	Many things I have to do are repetitive and monotonous.	T	F
10	It takes more stimulation to get me going than most people.	T	F
11	I get a kick out of most things I do.	T	F
12	I am seldom excited about my work.	T	F
13	In any situation I can usually find something to do or see to keep me interested.	T	F
14	Much of the time I just sit around doing nothing.	T	F
15	I am good at waiting patiently.	T	F
16	I often find myself with nothing to do time on my hands.	T	F
17	In situations where I have to wait, such as a line or queue, I get very restless.	T	F
18	I often wake up with a new idea.	T	F
19	It would be very hard for me to find a job that is exciting enough.	T	F
20	I would like more challenging things to do in life.	T	F
21	I feel that I am working below my abilities most of the time.	T	F
22	Many people would say that I am a creative or imaginative person.	T	F
23	I have so many interests, I don't have time to do everything.	T	F
24	Among my friends, I am the one who keeps doing something the longest.	T	F
25	Unless I am doing something exciting, even dangerous, I feel half-dead and dull.	T	F
26	It takes a lot change and variety to keep me really happy.	T	F
27	It seems that the same things are on television or the movies all the	T	F

	time; it's getting old.		
28	When I was young, I was often in monotonous and tiresome situations.	T	F

Annexure V

The Situational Motivational Scale (SIMS)

Instructions

Read each item carefully. Using the scale below, please circle the number that best describes the reason why you are currently engaged in this activity. Answer each item according to the following scale. **1 Corresponds Not All (CAN) 2 Corresponds a Very Little (CVL) 3 Corresponds a Little (CL) 4 Corresponds Moderately (CM) 5 Corresponds Enough (CE) 6 Corresponds a Lot (CAL) 7 Corresponds Exactly (CEY).**

S.No	Statements	CAN	CVL	CL	CM	CE	CAL	CEY
1	Because I think that this activity is interesting	1	2	3	4	5	6	7
2	Because I am doing it for my own good	1	2	3	4	5	6	7
3	Because I am supposed to do it	1	2	3	4	5	6	7
4	There may be good reasons to do this activity, but personally I don't see any	1	2	3	4	5	6	7
5	Because I think that this activity is pleasant	1	2	3	4	5	6	7
6	Because I think that this activity is good for me	1	2	3	4	5	6	7
7	Because it is something that I have to do	1	2	3	4	5	6	7
8	I do this activity but I am not sure if it is worth it	1	2	3	4	5	6	7
9	Because this activity is fun	1	2	3	4	5	6	7
10	By personal decision	1	2	3	4	5	6	7
11	Because I don't have any choice	1	2	3	4	5	6	7
12	I don't know; I don't see what this activity brings me	1	2	3	4	5	6	7
13	Because I feel good when doing this activity	1	2	3	4	5	6	7
14	Because I believe that this activity is important for me	1	2	3	4	5	6	7
15	Because I feel that I have to do it	1	2	3	4	5	6	7
16	I do this activity, but I am not sure it is a good thing to pursue it	1	2	3	4	5	6	7

INSTITUTIONAL HUMAN ETHICS COMMITTEE



Avinashilingam

Institute for Home Science and Higher Education for Women
(Deemed to be University under Category 'A' by MHRD, Estd. u/s 3
of UGC Act 1956) Re-accredited with 'A++' Grade by NAAC.
Recognised by UGC Under Section 12 B
Coimbatore-641 043, Tamil Nadu, India

26th Februaury 2022

Chairman

Dr. Sudha Ramalingam
Director-Research & Innovation,
Professor-Community Medicine,
PSG Institute of Medical Sciences
& Research, Coimbatore

Member Secretary

Dr. S. Uma Mageshwari
Professor and Head,
Department of Food Service
Management & Dietetics

Members

Mr. K. Arunmoli (Legal Expert)
Dr. Subhashini K. Sripathi
Dr. A. Saraswathy (Medical Officer)
Ms. D. Kavitha
Dr. A. R. Sudamani Ramasamy
Dr. G. Victoria Naomi
Dr. Judith Justin
Dr. Anitha Subash

To
Ms. Swathy P
Department of Applied Psychology
Avinashilingam Institute for Home Science and
Higher Education for Women
Coimbatore - 641 043

Dear Swathy P,

Ref: Your proposal No. IHEC/21-22/A.PSY-17 entitled
"Curiosity and Exploration, Boredom Proneness and Situation
Motivation among Adults" submitted for approval of IHEC on
23.11.2021.

The Institutional Human Ethics Committee of our University
hereby grants approval to your research proposal No. IHEC/21-22/
A.PSY-17 entitled "Curiosity and Exploration, Boredom Proneness
and Situation Motivation among Adults" submitted by you. The
Approval number for the same is AUW/IHEC/A.PSY-21-22/XPD-
17.

We wish you all the best in your research endeavours.

Regards,

S. Uma Mageshwari
Dr. S. Uma Mageshwari
Member Secretary

