A STUDY OF LEVEL OF SELF DIRECTEDNESS IN LEARNING ON STUDENTS OF STANDARD XI

A dissertation

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CERTIFICATE

This is to certify that dissertation entitled "A study of level of self-directedness in learning on students of standard XI" which is being submitted by Miss Karishma Patel under my guidance and supervision in partial fulfillment for the award of the Degree of Master Education (M.Ed.) at Centre of Advanced Study in Education (CASE), Faculty of Education and Psychology, The Maharaja Sayajirao University of Baroda, Vadodara. To the best of my knowledge, this dissertation is her genuine and original work. I have found the work satisfactory and fit for submission and evaluation.

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DECLARATION

I, **KARISHMA PATEL**, hereby declare that the Dissertation entitled **"A study of level of self-directedness in learning on students of standard XI**" conducted and submitted by me for the partial fulfillment of the M.Ed. programme at The Department of Education, Faculty of Education &Psychology, The Maharaja Sayajirao University of Baroda, Vadodara , is my original work and has not been submitted earlier either to The Maharaja Sayajirao university of Baroda or to any other institution for any course requirement . I also declare that no chapter of this dissertation in whole or in part is taken from any earlier work done either by me or any other person.

Place: Vadodara **KARISHMA PATEL**

Date: 30/04/2021 **Investigator**

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(KARISHMA PATEL)

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CONCEPTUAL FRAMEWORK

1.0 INTRODUCTION

Education is the panacea for learning. Learning is a process through which the child acquires new modes of behavior or change in the existing mode of behavior. Changes in behavior that are brought by physical maturation or growth do not fall under learning. Learning is what we acquire through efforts after birth. The view of learning as memorizing information in separate compartments gave way to a problem-oriented view based on conceiving, knowing and understanding. Therefore, the importance attached to memorization faded as conceiving the nature of knowledge and learning has changed, and learning how to learn, gained ground.

The learning of the students can be possible through different formal, non-formal and informal ways. Learner who have learned how to learn can organize their own learning, transfer new information to larger contexts, overcome difficulties, and they are open to development and change, they possess self-confidence and awareness, they are willing to learn, they can use various learning strategies, and they know their own learning styles, interests and talents (Rawson, 2000; Giese, 2006; Fredriksson and Hoskins, 2007; Hofmann, 2008). Even many policies, commissions and committees have giving idea of educating an individual will bring many change in their life and thinking style. Sarva Sikhsa Abhiyan, Right to Education gives information about free and compulsory education to all the students of age 14 years. Not only primary education is given importance but secondary and higher secondary education is also given importance. There is much responsibility for a teacher to transmit the knowledge to students, but at the same time this responsibility is to be given to the students to develop their own strategy of learning. According to Kothari Commission (1964-66),the emphasis of learning in students to develop characters like self-help, formation and developing a sense of social commitment. Participation in meaningful and challenging programs of community service and national reconstruction should accordingly become an integral part of education.

Competition is there between the students in terms of marks not in terms of knowledge, so we should adopt and create the students for gaining knowledge in terms of lifelong education. Life-long education is a cherished goal of the educational process. Opportunities will be provided to

the youth, housewives, agricultural and industrial workers and professionals to continue the education of their choice at their own pace. Organizing vocational training programs based on need and interest National policy on education (1986).

According to the National curriculum framework (2005) Connecting knowledge to life outside the school, ensuring that learning is shifted away from rote methods, enriching the curriculum to provide for the overall development of children rather than remain textbook centric, making examinations more flexible. We need to recognize that rights and choices in themselves cannot be exercised until central human capabilities are fulfilled. To make it possible for marginalized learners, to claim their rights as well as play an active role in shaping collective life, enable them to develop their capabilities of becoming autonomous and equal citizens. Education must aim to be character-making, enabling learners to be ethical, rational, compassionate, and caring, while at the same time preparing them for gainful, fulfilling employment. National Policy On Education (2020) It is becoming increasingly important that children not only learn, but learn how to learn. Education must thus, move towards less content, and more towards learning about how to think critically and solve problems, how to be creative and multidisciplinary, and how to innovate, adapt, and absorb new material in the novel and changing fields. While learning by rote can be beneficial in certain contexts, pedagogy must evolve to make education more experiential, holistic and integrated, discovery-oriented, learner-centered, discussion-based, flexible, and, of course, enjoyable. The government is also focusing upon the growing towards learning by doing, hands on experience etc; this information provides the knowledge which will be applicable and unforgettable knowledge. The learner can relate their experience and become a lifelong learner.

Lifelong learning focuses on the knowledge and skills needed by everyone regardless of age. The literature reveals that lifelong learning covers various skills known as twenty-first-century skills and these skills are thought to be increasingly important in information societies. That information will be gained by the inquiry process. The inquiry process is from once own interest in knowing the facts, this way the Self-directed learning enables individuals to improve their self-confidence, autonomy, motivation and lifelong learning skills (O'Shea, 2003). It turns learners into active participants in the learning process and encourages them to become deep learners (Spencer and Jordan, 1999).

Self-directed learning has been deep-rooted in India since historical times as an example of Mahabharata, Ekalavya was a self-directed learner, by observing the guru Dronacharya. Ekalavya has learned the art of wars by his interest.

1.1 HISTORY OF SELF-DIRECTED LEARNING (SDL)

Self-directed learning has existed since the beginning of time (Hiemstra, 1994). In India there is self-directed learning from ancient time. For example, the tradition of imparting knowledge through self-effort can be seen in our sages - Munies and Indian tradition. Some historical examples are, Rabindranath Tagore, Arvind Ghosh, and Vivekananda, etc. Knowles provided foundational definitions and assumptions for self-directed learning, what he called as Andragogy; "the art and Science of helping adults learn". In the United States of America, scholarly efforts to acquire an understanding of self-directed learning took place about 150 years ago, the lack of educational institutions necessitated that individuals learn on their own. However, it is during the last three decades that self-directed learning has gained significance, in which major research is conducted. Various researchers and scholars have used different terms for self-directed learning and it has been defined in various forms.

1.2 NATURE AND MEANING OF SELF-DIRECTED LEARNING (SDL)

According to Vaman Shivram Apte ("Sanskrit - Hindi dictionary", 1999), self-directed learning is the sum of three words, respectively, self, directed and learning. In which the word self refers to itself. The directed word refers to the successful operation of a task and Information or guidance is given to perfection. The word learning refers to the state of attainment of any knowledge or skill. Thus self-directed perceived learning in its etymological sense refers to the process of self-directed and guided learning by an individual for the attainment of knowledge or skill.

Self-directed learning has been described in the literature in two forms, such as outcome and process. When self-directed learning is seen as a result, it is believed that the goal of teaching is the creation of a self-directed scholar. To achieve this goal, the teacher is expected to create an environment in which the self-directed scholar can develop (Long, 2007). Self-directed learning is also described as a process of learning in which the scholar is responsible for the operation of the learning and the result obtained. In our daily life, when information increases exponentially, these qualities are required from updating individuals. After all, people who can direct their

learning have acquired ways of reaching information, can think at higher levels and organize their learning. In short, they are individuals who have mastered how to learn. According to many authors the self-directed learning has evolved accordingly:

Knowles, (1975) Self-directed is also known as learning by oneself, self-directed learning in its largest sense refers to individuals ability to take initiative to identify their own learning needs, their ability to determine their learning goals, their ability to define the sources they need in order to learn, their ability to choose/use appropriate learning strategies and evaluate learning outcomes with or without help from an outside.

Mocker and Spear (1982) Self-direction is a dimension of lifelong learning and facilitates it through formal and informal learning.

Candy (1990) Self-directed learning is a way of turning individuals into lifelong learners. On the other hand, one of the main aims of lifelong learning is to equip individuals with skills and competencies that enable them to learn by themselves. According to this belief, self-directed learning is both the meaning and the outcome of lifelong learning.

Brockett and Hiemstra (1991) state that self-direction needs to be considered with a perspective of (understanding of) lifelong learning. According to this, lifelong and self-directed learning are related concepts and they form basis to one another.

Spencer and Jordan (1999), self-directed learning prepares individuals for lifelong learning.

Merriam et al. (2007) Self-directed learning is a process where individuals take primary charge of planning, continuing and evaluating their learning experiences.

Brookfield (2009). Self-directed learning includes the conceptualization, design, implementation and evaluation of learning guided by learners

Ahmed(2011) said, 'A process in which a person takes responsibility, collaboration with others, for diagnosing his or her own learning needs, planning and engaging in a sequence of learning experiences to attain these objectives and evaluating progress towards these objectives".

Self-directed learning is an unending process and learner takes their own responsibility to learn with or without any external source. It will be a part of becoming lifelong learner with deep understanding and actively participating in the learning process through formal non formal and in formal way.

1.3 CHARACTERISTICS OF SELF- DIRECTED LEARNING

The particular combination of qualities in a person that makes them different from others in self-directed learning are:

The current changes in society are affecting education in more ways. The increasing access to technology has increased the higher expectations of students and communities. In light of these changes and their effects, the researcher feels that self-directed learning is crucial in meeting the teaching/learning needs of students. By using the knowledge and skills learned, the ability to adapt to new situations develops in the companionship.

1.4 FACTORS INFLUENCING SELF-DIRECTED LEARNING

When individuals are participating in self-directed learning, they need to develop interest and willingness. When they will possess interest and enthusiasm, have access to support and guidance, they would be able to improve their performance and carry out various tasks and activities in a well-organized manner. To carry out self-directed learning in an appropriate manner, individuals need to take into account the following factors. These are motivation, self-efficacy, support and performance (Boyer, Edmondson, Artis, & Fleming, 2014) and Self regulation, goal orientation (**Joshi, B., & Dixit, M. N. (2020).**

Motivation

In educational institutions as well as in employment opportunities, individuals need to develop motivation towards their work. Motivation is manifested in the willingness and desire of the individuals to carry out their tasks and activities in a well-organized manner that would lead to the achievement of goals and objectives.

Self-Efficacy

Self-efficacy is referred to as the beliefs of the individuals in their qualifications and abilities to achieve success in the implementation of various tasks and activities. To augment self-efficacy, individuals need to generate awareness in terms of tasks and functions that they would be willing to carry out. The individuals with high levels of self-efficacy in one task may enable them to form the view that they can be successful in the implementation of other tasks as well.

Support

To enhance one's learning and achieve one's goals and objectives in a well-organized manner, the learners need to obtain support and guidance. There is a direct impact of the organizational learning climate or organizational support of learning on the willingness of the learners to make use of self-directed learning.

Performance

In self-directed learning as well, the learners are making use of modern and innovative methods in augmenting their understanding. In generating information in terms of various aspects, and in carrying out various tasks and functions, individuals are making use of technologies.

Goal orientation

The learner who are eager to know, understand and learn something new, are often in a state of confusion in identification of their needs and determination. As a result of which they are unable to set their goal. Brown (2005) has stated that the scholar who exhibits high affinity towards his / her studies aims constantly to enhance his / her skills and achieve higher attainment on the subject matter.

Self-regulation

The concept of self-regulation has become prevalent in the present times as an important factor in the process of teaching-learning. Self-regulation means the individual's control over his own activities, behavior and work conditions. The concept of self-regulation is related to the degree of cognitive, motivational and pragmatic involvement of the individual that he actively displays during his learning. Self - regulation refers to the process whereby students activate and sustain cognitions, behaviors, and affect that are systematically oriented towards attainment of goals.

There are many factors affecting to achieve our goal or to complete our task. Many of the individual requires motivation, reinforcement, and support to perform better. It is seen that both external and internal environment where an individual live influence the come out with new innovative way. Many changes are been observed in this pandemic situation.

1.5 MODERN TRENDS OF SELF DIRECTED LEARNING

In the 21st century, new knowledge and skills are being produced in a revolutionary way. In this context, one cannot refuse the need for lifelong learning. The attainment of new knowledge and skills is essential to maintain the work capacity and relevance of the person. SDL emphasizes on detecting suitable resources, set learning goals, degree of own learning, decides on the suitable learning methods to use and to evaluate their progression. Distance education, open learning systems, computer assisted instruction which are technology which are used frequently now a day. Even in the in scenario of Covid-19, a pandemic disease that has changed the lifestyle and learning style of an individual. Self-directed learning makes use of digital technology, and the internet plays a huge role in informing and guiding the student. The learner has start learning that an individual are having the most interest.

1.6 DEVELOPMENT OF SELF DIRECTED LEARNING

Self-directed learning enables individuals to improve their learning with many skills confidence, encourages them to think critically and become a lifelong learner. Hiemstra (1994) has presented some of its important features to develop the theory of self- directed learning in an individual are as follows.

1. The student develops a sense of self-responsibility as a result of taking various decisions related to self-learning.
2. Self-directed learning can be seen as an attribute that can be measured on an attribute or interval scale, which is present in lesser or greater amounts in every school and learning situation.
3. Self-directed learning does not mean that every learning will be solitary or without any cooperation.
4. A self-directed scholar makes practical use of learned skills and knowledge and demonstrates the ability to solve problems by transferring knowledge and skills acquired from one learning situation to another.
5. Self-directed learning may involve many actions and resources, such as self-directed reading, participation in study groups, participation in debates organized by central, AIR or Doordarshan, and reflective writing trends.
6. Teachers can also have an effective role in self-directed learning, such as interaction with students, maintenance and availability of resources, evaluation of results, and help in analytical thinking.

Teachers should emphasize the importance of allowing learners to pursue their own interests so that learning becomes more meaningful. The individual plan, organize and present the thought for them or others. This will help a person to believe in oneself and also to use the information gathered from any source to channelize it. There are different roles to be played in self-directed learning, the role of teacher and students should be identified, that are given below.

1.7 ROLE OF LEARNER IN SDL

Self-learners are motivated by various internal incentives; these are the need for self-esteem, curiosity, desire to achieve and satisfaction of accomplishment (Self-Directed Learning, 2006). In self-directed learning, individuals are required to take into consideration four major aspects:

- Being ready to learn,
- Forming the learning environment,
- Implementing learning methods and
- Evaluating learning.

The learners need to develop motivation among them to acquire an efficient understanding of self-directed learning. This type of learning helps in bridging the gap between the knowledge learned in schools and problems related to practical life. Every time student's gets answer by their own will not be possible, so there should be an advisor to give the direction to get the answer.

1.8 ADVISING INSTRUCTORS' ROLES:

Though the SDL is a learner-oriented learning process there is some important role to play within the classroom and out of the classroom for teachers.

- Build a co-operative learning environment.
- Help to motivate and direct the students' learning experience.
- Facilitate students' initiatives for learning.
- Be available for consultations as appropriate during the learning process.
- Serve as an advisor rather than a formal instructor.
- To solve their problems.
- Evaluating oneself influenced learner awareness and motivate to self-learning.

Teachers should emphasize the importance of allowing learners to pursue their own

interests so that learning becomes more meaningful. Morrow (1993) reports that when writers are allowed to choose their own topics, they write more often and they write longer pieces. Same as if the learner is given the opportunity they will flourish like anything. Self-directed and teacher- directed learning Self-directed learning and teacher-directed learning are the two main streams of the learning process. Self- directed learning is traditionally different from teacher-directed learning found in schools.

1.9 DIFFERENCE BETWEEN TEACHER DIRECTED AND SELF-DIRECTED LEARNING (Knowles, 1975)

About	Teacher directed learning	Self-directed. Learning
Concept of the learner	Dependent personality.	Independent personality
Role of learner's experience	To be built on by teacher	A rich resource for learning and experience.
Readiness to learn	Varies with levels of maturation	Develops from life tasks and problems
Orientation to learning	Subject centered	Task or problem centered
Motivation.	External rewards and punishments. Extrinsic motivation	Internal incentive, curiosity. Intrinsic motivation
Planning	Primarily by teacher	By participative decision-making
Diagnosis of needs	Primarily by teacher	By mutual assessment
Climate	Formal	Informal

	Authority Oriented Competitive Judgmental	Mutually respectful Consensual Collaborative Supportive
Setting goals	Primarily by teacher	By mutual negotiation
Designing a Learning plan	Content units course syllabus , logical sequence	Learning projects ,learning contracts, sequenced in terms of readiness
Learning activities	Transmittal techniques , assigned reading	Inquiry projects, independent study, experimental techniques.
Evaluation	Teacher	Mutual assessment, self-collected evidence.

Self-directed learners see themselves as independent people. They are curious, satisfied with themselves, striving to achieve their potential, and are secure and self-confident enough to reveal themselves to others. They are productive and energetically pursue goals, even in the face of obstacles. The productivity should be seen in terms of area that is rural or urban in terms of learning.

1.10 EDUCATION IN RURAL AREA

The way of teaching differs in rural schools, it is still primitive, and the urban schools are keen on adopting modern ways of teaching like concept learning and focus on development of each student. Raising the quality of education in rural schools is essential Rural private schools perform no better than rural public schools in terms of learning outcomes. Quality

related issues are far powerful than poverty. Students are not at all encouraged to think but they are asked to memorize pre-defined questions for exams. So for many students clearing examination at the end of the session, passing their exam becomes more important than gaining knowledge. Every student is supposed to be promoted to the next class irrespective of marks in their examination. Hence majority of students do not bother to study, which means a decline in their education level. Neither students nor teachers take any interest in studies which is why the level of education is declining in India despite many efforts.

The quality of education in rural schools is dismal, on average. Among 14-18-year-olds surveyed by the ASER teams, only 43% could solve a class IV mathematics problem. This proportion was roughly the same among 14-year-olds as among 18-year-olds, showing that the problem of low learning outcomes was not resolved by remaining in school. Many students could not read a class II textbook in the regional language. For that now national education policy 2020 have much emphasized on the primary education, vocational and multidisciplinary to overcome at some extent the problem.

1.11 RATIONALE OF THE STUDY

Ultimate aim of education is holistic development of the student and manifestation of best from the student. It can not only help in academic achievement but also for the better life. In education there are many teaching method and approaches for making teaching learning process effective. Students are with individual differences different learning patterns n style they learn. Self directed learning will give a purpose for learning for their own self learn must act on the basis of knowledge of the alternative possibility open to them that is if fully informed as possible they must also be able to choose among possibility that can be realizedself-directed learning will be concerned much with an internal change of consciousness. It involves becoming aware of Ideas in action and of the culturally constructed nature of believers and moral code.

According to NCF 2005 our current concern in the curriculum to make it an inclusive and meaningful experience of children along with effort to move away from A Textbook culture require a fundamental change in how to think of learner and process of learning as per the detail of the above and need of present education system it seems self-directed learning is a suitable

and appropriate method of learning. According to National Education Policy 2019 it is well understood it student learn and grab concept most quickly when they enquire and learn. The investigator will carry the present study on 11th standard student where the age is very crucial in developing cognitive shaping, reasoning ability, social skills, attitudes, intelligent etc. as a parent, teacher, friends is addition we should always understand the need of learner and answer the question that they are having in the mine also can be motivated or trained them in a way that they understand the value of observation presenting in front of other developing confidence identifying many students of the difficulty in finding the connection between the learn fat and implementing in our life. In India self-directed learning were deep rooted from ancient times.

Our education system is being observed that only teaching method is being commonly used in our classroom only teacher centeredness is seen. In that the process the student does not get the basic concept of relating the content taught with the daily life. Least importance is given to self-expression, lesser scope is given for original expression, and little encouragement is given for original thinking and presenting the idea.

The development of SDL is rooted within the ideas of the openness in education like creativity, problem solving skill, desire to learn with knowing their interest and developing confidence. The learning style involved is memorization of the facts. The prosody is only for examination purpose. The approach of self-directed learning has emerged in the streamline under the realms of learning and education. It theories that individuals can become more self-directed with additional support and motivation to sustain more self-autonomy.

SDL is the new revolution in the learning strategies as the name suggests that the individual will create an environment for themselves to learn, whatever they wants and will also be able to know themselves more with the help of SDL programme. This programme will be developed in rural area that will develop attitude and taking initiative with or without the help of others, in diagnosing their needs, formatting goals and identifying the resources material. The main emphasis was given to rural students that there the students have many activities going such as playing, doing work of elder, buying thing, collaborative work with their neighborhood, agriculture is the prominent in rural are that will also give idea of implementing the knowledge of Science in practical form.

Importance of study Self-directed learning can be seen as an important trend in the context of lifelong education. The tendency towards self-directed learning helps a person to remain a

lifelong student, who constantly scours his knowledge and skills. For self-directed learning, a person must have certain qualities, habits and skills. The level of academic achievement of students can also be increased. The benefits of self-directed learning include the preparation of individuals for lifelong learning. Through self-directed learning, the individuals are able to formulate measures to overcome problems and challenges. They are able to become more confident in implementation of various tasks and functions (Taylor, 2001). There are many questions which the investigator wants to get the solution by conducting survey.

1.12. SCHEME OF CHAPTERIZATION

The present study follows the listed scheme of chapterization.

Chapter I details the introduction of the present study along with all the taken variables. The chapter helps to build the rational for the present study. The appropriateness of the study and the reason to conduct the study is presented in this chapter.

Chapter II gives details of the reviewed literatures in the field of self-directed learning, rural area, and lifelong learner with different subject. This helped the researcher to prepare the implications of the review of related literature for the present study. It also helped the researcher to consider different methodological aspects for the present study.

Chapter III details with the methodology adopted in the present study. This chapter details about the design of the study, the population and sample, the procedure followed to develop and select the tools used for data collection and the procedure of data analysis adopted.

Chapter IV provides details of the analysis and interpretation of collected data. The chapter also provides the findings of the present study and implications of the same.

Chapter V presents the whole study in a nutshell along with the major findings of the present study, the discussion on the results arrived at after the analysis, implications drawn from the present study and suggestions. This chapter is followed by the Bibliography and Appendices.

CHAPTER TWO
REVIEW OF THE RELATED LITERATURE

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2.0 INTRODUCTION

A review of related studies is an important for any research work. It is also beneficial for the researcher to provide the rational for the present studies. In this chapter, researcher mention the studies which some of the relevant research done in the past similar to the present study. The investigator makes greater advantage from the earlier studies and researches, uses the earlier results and findings, draws so many clues from the designs, methods and procedures of prior researches and matches or compares his or her findings with the findings drawn before and many implications can also be used for present study.

Knowles (1975) The self-directed learning guide consists of three parts: The Learner, The Teacher, and Learning Resources. Part one contains four inquiry projects which examine the importance of self-directed learning, its assumptions, required competencies, and learning plan design. The nature of the inquiry between author and teacher in Part two is to explore the implications for teachers of having self-directed learners as students. Knowles visualizes the teacher role as that of facilitator of learning rather than teacher, procedural guide rather than content transmitter. The reader is led through a semester graduate course in "The Nature of Adult Education," taught by the author, where the teacher performs as a facilitator and resource to self- directed learners. Part 3 consists of 15 learning resources: a comparison of assumptions and processes, competencies of self-directed learning, a learning contract, descriptions of self- directed learners, relationship-building exercises, a consultation skill-practice exercise, a self- assessment exercise, a content-course self-assessment instrument, guidelines for stating objectives, questioning strategies/techniques, relating methods to objectives, exercises in reading a book proactively and using human resources proactively, types of evidence for different objectives, and examples of rating scales.

Leean's (1981) 18-month study of rural adults over the age of 25 who had not completed a high school education or its equivalency revealed that 98 percent reported at least one major learning effort, with the average amount of time on each project being about 106 hours. The subjects reported an average of four learning projects a year, and the majority of them were self-planned. Furthermore, those interviewed indicated they were more comfortable learning at home or in their communities. Recommendations from the study included determining what the adult wants and reassessing the rights of the self-directed learner.

Brockett & Hiemstra (1991) believe that things learned freely are best learned. This idea enhances, encourages and promotes the idea of self-directed learning where the learner has full freedom to take initiatives according to his or her own convenience with or without the assistance of others in diagnosing their learning needs and formulating learning goals and objectives, recognizing material and human resources for the purpose of learning, selecting and applying suitable learning styles and assessing the outcomes of learning. Self-direction in the process of learning is a way of life. Schools and other educational institutions can train students for a life of self-education. True self-education can only take place, when an individual himself or herself selects what and what not to learn, unlearn and relearn.

Carmichael (1992) examined the anatomy of Self-Directed Learning Strategy. The major findings indicate that there are several critical stages in self-directed inquiry that precede the problem-solving stage each of which makes unique cognitive demands on the learners. Furthermore, Maynes conducted an exploratory study on self-directed learners in 1990. The results of the study reveal that the performance of students in topic elaboration and its component skills, the quality of students‟ reflection and the sophistication of students‟ strategy for undertaking independent projects can be improved. The range of the contexts in which students can apply the topic elaboration scheme can be extended. The study also shows that students‟ self-directed learning behavior is a viable aspiration for schooling. Increased self- directedness can be realized, when topic elaboration is taught as guiding super ordinate structure and when improvement in performance is sought by the use of reflection strategy

Gehring (1997) conducted a study to analyze different factors affecting learning strategy

in the professional workplace. The study shows that there are no differences in using learning strategy, when employees are grouped on the basis of age, gender, attendance, educational credential and years in position. Learning strategy is not a useful tool for discriminating among employees grouped on 28 the basis of various demographic data. No single set of training principles will work for all employees. Organizational training efforts need to teach the learning strategy identified as critical for the job and for the organization.

Griffith (1997) conducted a study concerned with the relationship between learning strategy and academic achievement in community college engineering technology students. The major findings of the study reveal that to achieve academic and career success, students need to find and employ learning strategy that bridge the gap between knowledge and its application and between the classroom and the workplace. The students do not equate any of the cognitive and Meta cognitive learning strategy with achievement while three of the four resource management strategies indicate significant, but moderate correlations. The effort regulation and help-seeking sub-scales reveal the strongest correlation to academic achievement. The study indicates that students appear to contradict the anticipated use of cognitive learning strategy while supporting the use of resource management strategy. The students in the study population have recognized their use of strategy most strongly in terms of personal control.

Mitchell (1997) explored the impact of a self-directed learning model on public high school students. The study reveals that the instructors must provide conditions to increase students‟ success. Traditional instructional strategy must change to those which promote learner's independent thinking, facilitate reflection, knowledge acquisition and assessment. Trust must be quickly built between the learners and facilitators in order to obtain optimum results. The topics learners choose to investigate must be personally relevant. Learners would make better progress, if they design and monitor a positive learning climate while using the personal learning styles which best meet their needs. Learners must be given the opportunity to accept responsibility for project completion schedules as they pursue their quest for new knowledge, enhanced skills and attributes. The quality and quantity of learner efforts will be greater, when students view their achievements as being currently meaningful or having future value.

Rani (2000) carried out a study concerned with the use of the internet to foster self-directed learning in Mathematics and Natural Science classes of community and technical college. The results of the study reveal that the internet presents itself as an ideal vehicle for self-directed learning. The study concludes that self-directed learning is viable teaching method in Mathematics and Science for motivated adult learners and the internet is a resourceful tool to facilitate it. Instructors who are self-directed as learners tend to encourage self-direction in their students.

Abdullah (2001) has mentioned the specific facts related to this theory as follows, Self-management has been considered an important part of self-directed learning. 1. Self-directed learning also incorporates self-supervision, in which the scholar supervises, evaluates and controls their cognitive learning matrices. 2. Motivation and strong will power have an important place in self-directed learning. Inspiration motivates the scholar to learn and strong will power keeps him engaged till the successful completion of learning. 3. Learning decisions in self-directed learning are not with the teacher but in the hands of the scholar. 4 While teaching with students, the teacher performs the methods of learning methods in this way so that students can use the above methods and constructions themselves in self-learning. 5 Self-guided learning runs in collaborative situations. 6 Self-guided learning is the development of new - components of knowledge. Using learned knowledge and skills, the new qualification is developed in the subsidiary of the optimization. This type of learning is helpful in removing the gap between problems related to knowledge and practical life learned in schools.

Taylor (2001) conducted a qualitative study on self-directed learning in relation to the views of students and teachers. The findings of the study reveal that students and teachers experience a little difficulty in articulating a clear-cut definition of self-directed learning. They feel self- directed learning of some value, but only when used in combination with teacher-led methods. Both students and teachers consider that students take more accountability for learning in self- directed learning than in traditional teaching. Majority of the students link self-directed learning with identifying their own learning needs.

Abou-Rokbah (2002) carried out a study related to the readiness for self-directed learning in Saudi Arabian students. The results of the study reveal that Saudi Arabian students are

not comfortable with entirely maintaining their own learning strategies and methods. They would prefer to be in a somewhat dependent setting to feel their success.

Hutchins (2002) conducted another study concerned with adult perspective on self-directed learning. The results of the study indicate that the adults view self-directed learning in many ways. Self-directed learning is seen as both an obstacle as well as an asset by the adult learners. The three dominant themes that emerged in the study are: the importance of life experiences in the learning process, the challenges of self-directed learning and the value of collaborative support systems of self- learning.

Silen and Uhlin (2008) took a study in relation to self-directed learning as a significant learning issue for students and faculties. The study shows that self-directed learning is an important idea in student-centered learning as well as problem-based learning. The significance of growing to be a self-directed learner and the necessity for the teachers to participate in the process of learning is central and crucial. Two models of thinking - one concerned with the problem-based learning and the other one concerned with self-study have been incorporated in this study.

Klotz (2010) examined the relationship between self-directed learning readiness and academic achievement in first semester college students. The results of the study reveal that correlation do not exist between self-directed learning readiness and academic achievement in sub-groups of the population by ethnicity, first generation status, first language and enrollment in remedial coursework. The correlation exists between self-directed learning readiness and academic achievement for 19 year-old participants.

Ozan, Gundogdu, Bay, & Chelkan, (2012) carried out a study on the university students‟ self- regulated learning strategy skills and self-efficacy perceptions in terms of different variables. The results of the study reveal that there are meaningful and significant differences between male and female students in relation to their metacognitive effort regulation, help seeking, self regulation and overall efficacy perceptions. The meta cognitive self-regulation skills and self- efficacy perceptions of female students are found to be higher than those of male students. Besides this, help seeking skills and effort regulation of male students are found to be higher than those of female students.

Furthermore, **Thomas (2013)** conducted a study concerned with investigating self-regulated learning strategy for supporting the transition to problem-based learning. The study suggests that when the students do not understand and realize their own process of learning, they frequently experience anxiety, stress and uncertainty and use ineffective self-learning strategy. Learners can enhance their self-efficacy along with cognitive and metacognitive functioning through engagement with a programme for supporting self-regulated learning in context to problem- based learning.

Linder (2013) conducted a study concerned with an analysis of Self-Directed Learning of first- year college students. The results of the study have indicated that first-year college students have the capability to take responsibility of their own learning in different ways. There is a need of a support system that includes coursework structured to enhance the understanding of individual learners‟ characteristics, to highlight the strategy to maximize learners‟ efforts, and to allow students to develop into more self-directed. Moreover, learner control is a key ingredient of self- direction and is positively correlated to academic success.

Joshi, B., & Dixit, M. N. (2020) conducted a study to solve the purpose of self-directed learning with special concern of its meaning, importance, traits and skills related with SDL, five step model of SDL and the role of a teacher in the nurturing of self-directed learning ability. There was an experiment on B.Ed. students. This thesis is being written in Hindi. The conclusion part was to use of five step SDL modal would be helpful for learners to start their SDL. Teachers related with formal setting of higher education, has a significant role to play in the promotion, motivation and providing opportunity for SDL to their students.

2.1 IMPLICATION OF THE RELATED LITERATURE FOR THE PROPOSED STUDY

The researcher reviewed 20 studies from abroad and India related to self-directed learning. The present review was conducted to identify the key areas for the purpose study to know the findings, to identify research methodology, sampling technique to that can be adopted and used for the purpose study, and find out the research gap. Researcher will address the review of the related literature is summarized below and implication are drawn for the

purpose study.

Majority of the self directed learning is conducted with university students. Very less study have taken place in terms of secondary and higher secondary students at both international and national level. The study is mainly survey and experiment. The design is mostlyquantitative.

The study conducted in abroad which included by directed strategies **Brockett & Hiemstra (1991)Silen and Uhlin (2008) Ozan, Gundogdu, Bay, & Chelkan, (2012) Carmichael (1992) Abou-Rokbah (2002).** The study revealed that self-directed learning creates efficient learning in an individual. Only three study of **Abou-Rokbah (2002) and Mitchell (1997) Rani (2000)**, this study show the sample is of school students. The results show an obstacle as well as an asset by school students, which have not shown a positive result in the school students. All other study you are showing positive result with finding and are showing positive result with learning on with their interest and know what to learn and what not to learn. **Rani (2000)** Mathematics and Science for motivated adult learners and the internet is a resourceful tool to facilitate it.

Study conducted by **Griffith (1997), Klotz (2010)**, **Thomas (2013)** suggested that self-directed learning and academic achievement shows a positive result with experimental method show the correlation between self-directed learning readiness and academic achievement with a positive result but the positive result was limited to the graduate students only. Learners can enhance their self-efficacy along with problem solving learning.

At international level a lot of studies are conducted on scale development and measuring the scale using many skills of self-directed learning.

Review of the Literature on self-directed learning the researcher came across only one study **Joshi, B., & Dixit, M. N. (2020).** In India self-directed learning was developed in implemented in teacher education programme. Study was carried out in **Joshi, B., & Dixit, M. N. (2020)** adapted and experimental method it developed and implemented self-directed learning for DIET (B.Ed. students) and P.T.C students at Gujarat Vidyapeeth University of Ahmadabad. The result was positive in terms of achievement.

Most of the educations were done by graduating students for developing self-regulatory, critical thinking, motivation and elaboration. Researcher felt that this research will create awareness about in individual needs and interest to learn and further help them in thinking critically and problem solving ability. Many study has been conducted on graduate and postgraduate students of Medical, Nursing, Engineering, so researcher wished to study on school student. This program with get awareness for students how to learn to self-directed learning that will develop confidence and problem solving attitude and in the proposed study the researcher will develop a program and see its effectiveness on the students of IX.

CHAPTER THREE
RESEARCH METHODOLOGY

CHAPTER THREE
RESEARCH METHODOLOGY

3.0 INTRODUCTION

Methodology refers to the process and procedure that one adopts while carrying out a study in order to achieve the particulars objectives specified for one's study. The scope of research methodology is wider than that of research methods. Methodology is very important step in any research endeavor. Methodology discusses about the plan and procedure used for the present study. It further discusses the design, population, and sample and sampling procedure detail about tools and techniques of data collection, the procedure applied for data collection and data analysis.

3.1 STATEMENT OF PROBLEM:

A study of level of self-directedness in learning on students of standard XI

3.2 OBJECTIVES:

1. To study the level of self-directedness in learning on students of standard XI.
2. To study the level of self-directedness in learning of different stream of Education on students of XI standard
3. To study the level of self-directedness in learning of girls and boys of XI standard students.
4. To study the level of self-directedness in learning of girls and boys of XI standard students with respect to different stream.
5. To study the interaction effect of the level of self-directedness in learning of different stream of education and sex of XI standard students.
6. To study the level of self-directedness of students in terms of teachers' perspective,

3.3 HYPOTHESIS:

$H_0$1 There will be no significant difference in the mean score of boys and girls of Science students on the levels of self-directed learning.

$H_0$2 There will be no significant difference in the mean score of boys and girls of arts students on the levels of self-directed learning.

$H_0$3 There will be no significant difference in the mean score of boys and girls of Commerce students on the levels of self-directed learning.

$H_0$4 There will be no significant difference in the mean score of Science and Commerce students on the levels of self-directed learning.

$H_0$5 There will be no significant difference in the mean score of Science and arts students on the levels of self-directed learning.

$H_0$6 There will be no significant difference in the mean score of arts and Commerce students on the levels of self-directed learning.

3.4 EXPLANATION OF TERM:

Self-directed learning prepares an individual to learn by oneself and with the help from outside source, through planning and understanding of individual needs and capability.

3.5 OPERATIONAL DEFINITION OF THE TERM:

In this study Self-directed learning means a process that an individual has to participate in the learning with or without the help of others. This is measured in five components namely awareness about the learning need, choosing appropriate learning strategies and learning activities, identify their interpersonal skills and evaluating their learning outcomes.

3.6 DELIMITATION OF THE STUDY:

The present study was delimited to the XI standard students of rural area of

Navsari district and block Vansda. It was also delimited to the only Gujarati medium schools with all the three streams of the Gujarat State Education Board.

3.7 METHODOLOGY OF THE STUDY

The present study aimed at to find out the level of self-directedness in learning of the XI standard students. Survey method was used in the present study. In the survey research, data is collected from a large sample and analyzed representing a specific population. On the basis of the analysis of data the description of the group is done and on the basis of the inference statistics the inference is done for the entire population. It seeks to find the real facts with regard to existing conditions. Following process of the survey method was used in the present study.

3.8 DESIGN OF THE STUDY

Due to the pandemic condition convenient sampling technique was used to collect the data of students.

3.9 VARIABLES

The following variables will be considered for the proposed study.

A. Independent variable: In the proposed study,

- **Stream of students:** The students will be categorized into three groups based on they have selected their stream like Arts, Commerce, and Science of standard XI.
- **Sex (Boys and Girls)** –On the basis of sex the sample has been categorized into boys and girls. There are chances that sex may play a significant role in the formulation of Self- Directed Learning program

B. Dependent variables:

- The self-directed learning will be the dependent variable.

3.10 POPULATION

All the students studying in XI Standard in Block Vansda, Gujarati Medium School affiliated to Gujarat State Education Board in the city of Navsari in academic year 2020-2021 was constituted as the population for the proposed study. The school taken for that study should have all the three streams like Science, Commerce, and Arts. Approximately there are total 5 schools in that block having all the three streams.

3.11 SAMPLES

The sample of the present study was selected with the help of convenient sampling considering the criteria i.e. availability of the school as per the permission given by the school to the investigator. The researcher adopted questioner method to collect the data of study among different stream (Science, arts and Commerce) and also gender (male and female) students, and from that school data was also collected from the teacher. Only Gujarati medium school, which is affiliated to Gujarat State Education Board from the Block Vansda, was selected as a sample for the present study. The name of the school was "Shree Janta High School, Vidhya Kiran High School and Shree Pratap High School in which there were 509 students studying in XI standard. The total number of students in each school of standard XI is 106,162 and 241 respectively.

3.12 TOOL FOR DATA COLLECTION

The researcher has made a Google form of the tool that was been translated in Guajarati language and validated with 5 experts. From the tool, questionnaire for teachers was been prepared by the investigator and validated from 5 experts. These tools were having open ended question for getting the information from teachers about their students.

The tool of Self-directed learning was used for these study was prepared by Williamsons.

To determine the internal consistency Cronbach's coefficient alpha was computed. In the alpha coefficient reliability test a result of more than 0.70 is generally considered to have an acceptable and satisfactory internal consistency (Nolan and Nolan 1997. Nunnally 1978. de Vaus 1991). This study aimed to develop a valid and reliable scale to assess learners' selfdirected learning skills. The content validity of the SRSSDL dimensions were established following the review of related literature and through the appraisal of the panel of experts participating in the Delphi technique .Broad area of the SRSSDL Cronbach's alpha coefficient Awareness 0.79 Learning strategies 0.73 Learning activities 0.71 Evaluation 0.71 Inter-personal Skills 0.71. The tool has following five components:

1. **AWARENESS:** Awareness in general means, knowledgeable being conscious; cognizant, informed alert. Awareness is the state or ability to perceive, to feel, or to be conscious of events, objects, or sensory patterns. In this level of consciousness, sense data can be confirmed by an observer without necessarily implying understanding. The possessor of any knowledge must contain awareness but mere awareness does not contain any type of knowledge. More broadly, it is the state or quality of being aware of something. Twelve dimensions relating to learners' understanding of the factors contributing to becoming self-directed learners.

2. **LEARNING STRATEGIES:** Actions and operations used by students in order to optimize the processes of obtaining and storing information, extracting it from memory and its use. Learning strategies are tactics students use to assist them in the learning process. Skills students use to understand different tasks and choose and effectively employ the appropriate technique to accomplish tasks or meet goals. Twelve dimensions explaining the various strategies self-directed learners should adopt in order to become self-directed in their learning processes.
3. **Learning activities:** The things learners and facilitators do,

within learning events that are intended to bring about the desired learning outcomes. Those tasks that students undertake to achieve a set of intended outcomes. Learning activities in relation to the design process: "as a specific interaction of learner(s) with other(s) using specific tools and resources, orientated towards specific outcomes" (Beetham & Sharpe, 2007, p. 28) Twelve dimensions specifying the requisite learning activities learners should actively engage in order to become self-directed in their learning processes.

4. **Evaluation:** Evaluation is a process that critically examines a program. It involves collecting and analyzing information about a program's activities, characteristics, and outcomes. Its purpose is to make judgments about a program, to improve its effectiveness, and/or to inform programming decisions (Patton, 1987). Twelve dimensions revealing learners' specific attributes in order to help monitor their learning activities.
5. **Interpersonal skills:** Interpersonal skills involve the ability to communicate and build relationships with others. Often called 'people skills', they tend to incorporate both your innate personality traits and how you've learned to handle certain social situations. Effective interpersonal skills can help you during the job interview process and can have a positive impact on your career advancement. Interpersonal skills are traits you rely on when you interact and communicate with others. They cover a variety of scenarios where communication and cooperation are essential. Twelve dimensions relating to learners' skills in inter-personal relationships, which are pre-requisite to their becoming self-directed learners.

Responses for each item are be rated by using a five-point scale: 5 = always: 4 = often: 3 = sometimes: 2 = seldom: 1 = never. The categorization of SDL dimensions into five broad areas allows for specific areas where students lack abilities in their self-directedness to be identified and support offered. Students with high scores, indicating a high level of self-directedness in their learning, should also be supported in order to help maintain and further develop their abilities in becoming independent life-long learners.

All the dimensions of the SDL were positively stated. For each item the 'always' response was rated as 5 and the 'never' response was rated as 1. Thus, the maximum and the minimum possible scores of the SDL were 300 and 60 respectively. A score sheet was developed to interpret responses. The scoring range in Table 2 indicates the respondents' level of self-direction in learning based, on their individual scores and the corresponding interpretation.

Scoring range	Level of self-directed learning	Interpretation
20%-47%	Low	Guidance is needed from the teacher Any specific changes necessary for improvement must be identified and a possible re-structuring of the methods of learning identified.
48%-74%	Moderate	This is half way to becoming a self-directed learner. Areas for improvement must be identified and evaluated, and a strategy adopted with teacher guidance when necessary. This indicates effective self-directed learning.
75%-100%	High	The goal is to maintain progress by identifying strengths and methods for consolidation of the students' effective self-directed learning.

1. **Reactions Scale:** To find out the level of self-directedness in the students of XI, a Likert scale i.e. five-point scale was prepared to know the reaction of the students that was taken from Williamsons research as the question are show above and the researcher has translated that tool into Gujarati for the better understanding of the students. After translating also, the tools were being validated by the experts. It would help the investigator to know the reaction of XI standard students for becoming self-directed learner.

2. **Questionnaire.** The questionnaire was prepared by the researcher to collect the

information about teachers 'perspective for their students 'level of self-directedness. The researcher has prepared 15 questions related to the tools used for students. The questions were open ended.

3.13 PROCEDURE FOR THE DATA COLLECTION

PLANNING AND EXECUTION

- **Visit to schools:** The researcher wanted the data of the school which was having all the streams like Science, Commerce and arts. There were 5 schools having all the streams. But due to pandemic situation 3 school has granted the permission. The data was collected from the 3 schools.
- **Permission from principals:** The researcher has visited the schools for taking permission and all have given permission of specific day for visiting the school and also discussed the procedure of collecting the data from the students.
- **Interaction with teacher:** The researcher was introduced to the mentor teacher and that mentor teacher has given the information about the students and has introduced the class teacher of that particular streams. The class teachers have added the researcher in the groups for sending the link and interacting with the students. After all the work has been done, all the teachers were given the questionnaire for collecting the data from the teacher on different days.
- **Google meet with students:** The researcher has interacted with students on Google meet. The researcher has conducted this meet to give idea about the Google form and also about the discussing about the survey.
- **Online filling of Google form:** The research has sent the link a day prior to the class teacher with specific timing. After discussion the link of Google form was send to the students. Some students have filled the form on particular day others have filled by giving reminder notes 3 to 4 times by their teacher**s**.

3.14 ANALYSIS OF DATA

For the purpose of descriptive analysis of data mean, frequency, percentage, standard

deviation, were used. For the purpose of inferential analysis, independent t test was used as per the requirement of the data.

Detailed analysis and interpretation of data is given in chapter IV.

CHAPTER IV

ANALYSIS AND INTERPRETATION OF DATA

CHAPTER IV

ANALYSIS AND INTERPRETATION OF DATA

4.0.0 INTRODUCTION

In the previous chapter, a detailed description of the research methodology and tools for data collection was presented. Also, the process of data collection and the methods applied for analysis and interpretation of the data though various statistical measures were presented. The present chapter deals with the analysis and interpretation of data according to the objectives and hypotheses of the present study. In social Science research, where direct knowledge of population parameters is rare, hypothesis testing is the often used strategy for generalization. Thus, testing the hypothesis enables us to make probability statements about population parameters.

According to Kerlinger (1978), analysis means the categorizing, ordering, manipulating and summarizing data to obtain answers to research questions. The rationale of analysis is to condense data into an intelligible and interpretable form so that the relations in the research problems can be studied. Analysis of data means studying the tabulated material in order to determine the **inherent** factors or meanings. The analysis is an essential component for any scientific study and for ensuring that we have all relevant data for making contemplated comparison as well as related analysis. The statistical analysis describes the characteristics of the data which gives the investigator an insight into the problem. Interpretation is the final phase of the analysis process. It calls for a critical examination of the results of one‘s analysis in the light of all the limitations of data gathering.

The major objective of the present study was to find the level of self-directedness in students with respect to different streams and to compare the students of different stream, having more self-directedness. The data has been subjected to following statistical analysis namely mean, standard deviation, frequency, percentage, independent t test.

4.1.0 DESCRIPTIVE ANALYSIS OF DATA

Descriptive statistics are numerical and graphical methods used to summarize data and bring forth the underlying information. The numerical methods include measures o frequency and percentage.

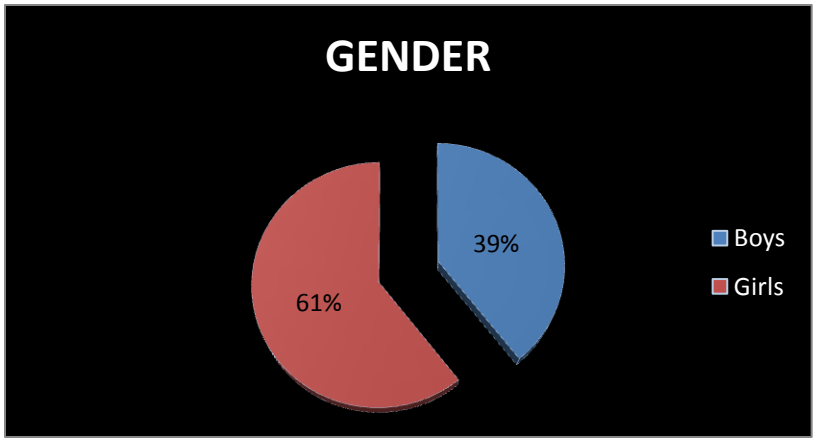
4.2.0 ANALYSIS OF REACTION SCALE

There was an analysis of reaction scale given by the XI standard students of Janta High School, Vidhya Kiran High School and Shree Pratap High School,Gujarati medium school. There were total 173 students. They gave their opinions about their level of self-directedness with respect to their stream. The following table shows the number of boys and girls have given their opinion.

Table - 4.1.0. Distribution of sample with respect to gender

Gender	Number	%
Boys	68	39.30
Girls	105	60.69
Total	173	100

Figure 4.1: Pie chart showing the Percentage Distribution of gender

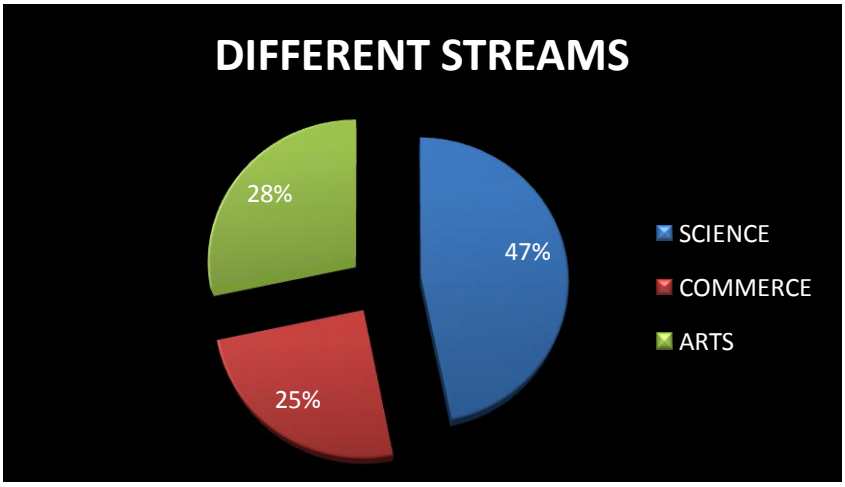


It can be inferred from the table 4.1 that the number of girl's respondents is 61% and boys respondents is 39%. The girls are more in number then boys. These were selected for the present investigation.

Table:4.2.0. Distribution of sample with respect to different streams.

STREAM	TOTAL	PERCENTAGE
SCIENCE	81	46.82
COMMERCE	43	24.85
ARTS	49	28.32
TOTAL	173	100

Figure 4.2: Pie chart showing the Percentage Distribution of different Streams

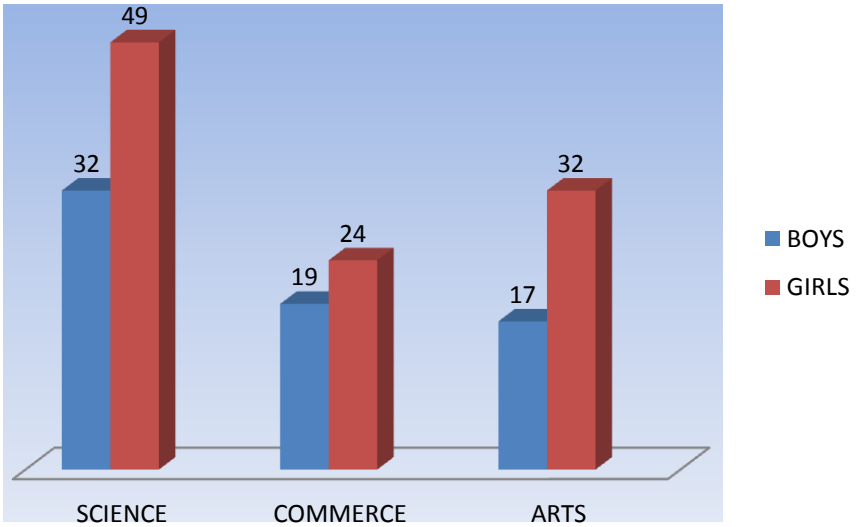


As seen from the table 4.2, in respect of the type of streams i.e., Science, Commerce and Arts. Science students gave highest response then arts students and lastly Commerce student respondent was found in the research.

Table:4.3.0 Distribution of sample with respect to different streams and gender.

STREAM	BOYS	GIRLS	**TOTAL**
SCIENCE	32	49	81
COMMERCE	19	24	43
ARTS	17	32	49
TOTAL	68	105	173

Figure 4.3: Bar graph showing distribution of gender with respect to different streams



As seen from the Table 4.3, in respect of the type of streams i.e., Science, have 32 Boys and 49 Girls, for Commerce 19 Boys and 24 Girls, for Arts number of Boys is 17 and Girls is 32Arts. In all the streams the number of girls has given more response.

The interpretation is done with the help of this table that is given by willomsons.

Scoring range	Level of self-directed learning	Interpretation
20%-47%	Low	Guidance is needed from the teacher Any specific changes necessary for improvement must be identified and a possible re-structuring of the methods of learning identified.
48%-74%	Moderate	This is half way to becoming a self-directed learner. Areas for improvement must be identified and evaluated, and a strategy adopted with teacher guidance when necessary. This indicates effective self-directed learning.
75%-100%	High	The goal is to maintain progress by identifying strengths and methods for consolidation of the students' effective self-directed learning.

Table:4.4.Mean and Standard Deviation, Standard Error of Means and Maximum possible score wise distribution of Self directedness level of learning of Science students 81 (N) along with its Dimensions.

STREAM	SELF DIRECTEDNESS DIMENSIONS	MAXIMUM SCORE	Mean	Percentage	standard deviation	standard error
SCIENCE	AWARENESS	60	45.23	77.07	11.97	2.11
	LEARNING STRATERGY	60	44.72	76.41	9.72	1.71
	LEARNING ACTIVITY	60	37.44	61.87	8.63	1.52
	EVALUATION	60	44.34	75.98	8.76	1.54
	INTERPERSONAL SKILL	60	44.24	74.79	9	1.59
	TOTAL	300	216	73.23	41.08	7.26

From the table 4.4, it was observed that the mean score of Science student's level of self directedness was 216 out of the total score of 300 with the standard deviation of 41.08 and the standard error of mean of 7.26. From the said percentage, it can be said that were high level of self directedness with 73.23 % of mean score. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be homogenous with low level of standard errors.

From the same table, it was observed that the mean score of Awareness as a dimension of self directedness of Science students was 45.23 out of the total score of 60 with the standard deviation of 11.97 and the standard error of mean of 2.11. From the said percentage, it can also be said that Science students were very high in their awareness component of the self directedness with 77.07 % of mean percentage. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be homogenous with low level of standard errors.

From the same table, it was observed that the mean score of Learning strategy as a dimension of self directedness of Science students 44.72 out of the total score of 60 with the standard deviation of 9.72 and the standard error of mean of 1.71. From the said percentage, it can be said that science students were high in planning their learning strategy component of the self directedness with 76.41 % of mean score. Also, from the said standard deviation and standard

error of mean, it can be said that the group seems to be quite homogenous with moderate level of standard errors.

From the same table, it was observed that the mean score of Learning activity as a dimension of self directedness of Science students 37.44 out of the total score of 60 with the standard deviation of 8.63 and the standard error of mean of 1.52 . From the said percentage, it can be said that Science students were moderate level in planning their learning activity component of the self directedness with 61.87 % of mean score. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be quite homogenous with moderate level of standard errors.

From the same table, it was observed that the mean score of Evaluation as a dimension of self directedness of Science students 44.34 out of the total score of 60 with the standard deviation of 8.76 and the standard error of mean of 1.54 . From the said percentage, it can be said that Science students were high level in evaluating their learning component of the self directedness with 75.98% of mean score. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be quite homogenous with moderate level of standard errors.

From the same table, it was observed that the mean score of Interpersonal Skill as a dimension of self directedness of Science students 44.24 out of the total score of 60 with the standard deviation of 9 and the standard error of mean of 1.59 . From the said percentage, it can be said that Science students were moderate level in their Interpersonal Skill component of the self directedness with 74.79 % of mean score. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be quite homogenous with mild level of standard errors.

Table:4.5.Mean and Standard Deviation, Standard Error of Means and Maximum possible score wise distribution of Self directedness level of learning of Commerce students 43 (N) along with its Dimensions.

STREAM	SELF DIRECTEDNESS DIMENSIONS	MAXIMUM SCORE	Mean	Percentage	standard deviation	standard error

COMMERCE	AWARENESS	60	45.13	68.02	6.59	1.16
	LEARNING STRATERGY	60	44.55	68.17	7.45	1.31
	LEARNING ACTIVITY	60	37.79	57.05	6.01	1.06
	EVALUATION	60	45.04	68.17	6.32	1.11
	INTERPERSONAL SKILL	60	45.88	69.18	6.29	1.11
	TOTAL	300	218.41	66.12	29.93	5.29

From the table 4.5, it was observed that the mean score of Commerce student's level of self directedness was 218.41 out of the total score of 300 with the standard deviation of 29.93 and the standard error of mean of 5.29. From the said percentage, it can be said that were moderate level of self directedness with 66.12 % of mean score. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be quit homogenous with mild level of standard errors.

From the same table, it was observed that the mean score of Awareness as a dimension of self directedness of Commerce students was 45.13 out of the total score of 60 with the standard deviation of 6.59 and the standard error of mean of 1.16. From the said percentage, it can also be said that Commerce students were moderate level in their awareness component of the self directedness with 68.02 % of mean percentage. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be homogenous with mild level of standard errors.

From the same table, it was observed that the mean score of Learning strategy as a dimension of self directedness of Commerce students 44.55 out of the total score of 60 with the standard deviation of 7.45 and the standard error of mean of 1.31. From the said percentage, it can be said that Commerce students were moderate level in planning their learning strategy component of the self directedness with 68.17 % of mean score. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be quite homogenous with moderate level of standard errors.

From the same table, it was observed that the mean score of Learning activity as a dimension of self directedness of Commerce students 37.79 out of the total score of 60 with the standard deviation of 6.01 and the standard error of mean of 1.06 . From the said percentage, it can be said

that Commerce students were moderate level in planning their learning activity component of the self directedness with 57.05% of mean score. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be quite homogenous with moderate level of standard errors.

From the same table, it was observed that the mean score of Evaluation as a dimension of self directedness of Commerce students 45.04 out of the total score of 60 with the standard deviation of 6.32 and the standard error of mean of 1.11 . From the said percentage, it can be said that Commerce students were moderate level in evaluating their learning component of the self directedness with 68.17 % of mean score. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be quite homogenous with moderate level of standard errors.

From the same table, it was observed that the mean score of Interpersonal Skill as a dimension of self directedness of Commerce students 45.88 out of the total score of 60 with the standard deviation of6.2 9 and the standard error of mean of 1.11 . From the said percentage, it can be said that Commerce students were moderate level in their Interpersonal Skill component of the self directedness with 69.18 % of mean score. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be quite homogenous with mild level of standard errors.

Table:4.6.Mean and Standard Deviation, Standard Error of Means and Maximum possible score wise distribution of Self directedness level of learning of Arts students 49 (N) along with its Dimensions.

STREAM	SELF DIRECTEDNESS DIMENSIONS	MAXIMUM SCORE	Mean	Percentage	standard deviation	standard error
ARTS	AWARENESS	60	42.22	68.43	6.14	1.08
	LEARNING STRATERGY	60	41.59	68.33	5.05	0.89
	LEARNING ACTIVITY	60	33.04	54.42	5.073	0.89
	EVALUATION	60	40.18	64.86	6.19	1.09
	INTERPERSONAL SKILL	60	41.28	67.17	5.25	0.92
	TOTAL	300	198.32	64.64	23.72	4.19

From the table 4.6, it was observed that the mean score of Arts student's level of self directedness was 198.32 out of the total score of 300 with the standard deviation of 23.72 and the standard error of mean of 4.19. From the said percentage, it can be said that were moderate level of self directedness with 64.64 % of mean score. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be quit homogenous with mild level of standard errors.

From the same table, it was observed that the mean score of Awareness as a dimension of self directedness of Arts students was 42.22 out of the total score of 60 with the standard deviation of 6.14 and the standard error of mean of 1.08. From the said percentage, it can also be said that Arts students were moderate level in their awareness component of the self directedness with 68.43% of mean percentage. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be homogenous with mild level of standard errors.

From the same table, it was observed that the mean score of Learning strategy as a dimension of self directedness of Arts students 41.59 out of the total score of 60 with the standard deviation of 5.05 and the standard error of mean of 0.89. From the said percentage, it can be said that Arts students were moderate level in planning their learning strategy component of the self directedness with 68.33 % of mean score. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be quite homogenous with moderate level of standard errors.

From the same table, it was observed that the mean score of Learning activity as a dimension of self directedness of Arts students 33.04 out of the total score of 60 with the standard deviation of 5.07 and the standard error of mean of 0.89 . From the said percentage, it can be said that Arts students were moderate level in planning their learning activity component of the self directedness with 54.42% of mean score. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be quite homogenous with moderate level of standard errors.

From the same table, it was observed that the mean score of Evaluation as a dimension of self directedness of Arts students 40.18 out of the total score of 60 with the standard deviation of 6.19 and the standard error of mean of 1.09 . From the said percentage, it can be said that Arts students were moderate level in evaluating their learning component of the self directedness with

64.86 % of mean score. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be quite homogenous with moderate level of standard errors.

From the same table, it was observed that the mean score of Interpersonal Skill as a dimension of self directedness of Arts students 41.28 out of the total score of 60 with the standard deviation of 5.25 and the standard error of mean of 0.92 . From the said percentage, it can be said that Arts students were moderate level in their Interpersonal Skill component of the self directedness with 67.17 % of mean score. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be quite homogenous with mild level of standard errors.

Table:4.7.Mean and Standard Deviation, Standard Error of Means and Maximum possible score wise distribution of Self directedness level of learning of Science Male students 32 (N) along with its Dimensions.

STREAM	GENDER	SELF DIRECTEDNESS DIMENSIONS	MAXIMUM SCORE	Mean	Percentage	standard deviation	standard error
SCIENCE	MALE	AWARENESS	60	46.03	76.71	5.85	1.03
		LEARNING STRATERGY	60	45.65	76.09	8.18	1.44
		LEARNING ACTIVITY	60	37.62	62.7	5.26	0.93
		EVALUATION	60	45.96	76.61	5.67	1
		INTERPERSONAL SKILL	60	45.68	76.14	7.69	1.36
		TOTAL	300	220.96	73.65	27.98	4.94

From the table 4.7, it was observed that the mean score of Science Male student's level of self directedness was 220.96 out of the total score of 300 with the standard deviation of 27.98 and the standard error of mean of 4.94. From the said percentage, it can be said that were high level of self directedness with 73.65 % of mean score. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be homogenous with low level of standard errors.

From the same table, it was observed that the mean score of Awareness as a dimension of self directedness of Science Male students was 46.03 out of the total score of 60 with the standard deviation of 5.85 and the standard error of mean of 1.03. From the said percentage, it can also be

said that Science male students were very high in their awareness component of the self directedness with 76.71 % of mean percentage. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be homogenous with low level of standard errors.

From the same table, it was observed that the mean score of Learning strategy as a dimension of self directedness of Science male students 45.65 out of the total score of 60 with the standard deviation of 8.12 and the standard error of mean of 1.44. From the said percentage, it can be said that science male students were high in planning their learning strategy component of the self directedness with 76.09 % of mean score. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be quite homogenous with moderate level of standard errors.

From the same table, it was observed that the mean score of Learning activity as a dimension of self directedness of Science male students 37.62 out of the total score of 60 with the standard deviation of 5.23 and the standard error of mean of 0.93 . From the said percentage, it can be said that Science male students were moderate level in planning their learning activity component of the self directedness with 62.70 % of mean score. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be quite homogenous with low level of standard errors.

From the same table, it was observed that the mean score of Evaluation as a dimension of self directedness of Science male students 45.96 out of the total score of 60 with the standard deviation of 5.67 and the standard error of mean of 1.00 . From the said percentage, it can be said that Science male students were high level in evaluating their learning component of the self directedness with 76.61% of mean score. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be quite homogenous with low level of standard errors.

From the same table, it was observed that the mean score of Interpersonal Skill as a dimension of self directedness of Science male students 45.68 out of the total score of 60 with the standard deviation of 7.69 and the standard error of mean of 1.36 . From the said percentage, it can be said that Science male students were moderate level in their Interpersonal Skill component of the self directedness with 76.14 % of mean score. Also, from the said standard deviation and standard

error of mean, it can be said that the group seems to be quite homogenous with mild level of standard errors.

Table:4.8.Mean and Standard Deviation, Standard Error of Means and Maximum possible score wise distribution of Self directedness level of learning of Science Female students 49 (N) along with its Dimensions.

STREAM	GENDER	SELF DIRECTEDNESS DIMENSIONS	MAXIMUM SCORE	Mean	Percentage	standard deviation	standard error
SCIENCE	FEMALE	AWARENESS	60	48.67	77.31	6.22	1.1
		LEARNING STRATERGY	60	48.1	76.63	6.81	1.2
		LEARNING ACTIVITY	60	38.57	61.32	5.57	0.98
		EVALUATION	60	47.44	75.57	6.74	1.19
		INTERPERSONAL SKILL	60	46.42	73.91	8.56	1.51
		TOTAL	300	229.22	72.95	29.79	5.26

From the table 4.8, it was observed that the mean score of Science female student's level of self directedness was 229.22 out of the total score of 300 with the standard deviation of 29.79 and the standard error of mean of 5.26. From the said percentage, it can be said that were moderate level of self directedness with 72.95 % of mean score. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be homogenous with low level of standard errors.

From the same table, it was observed that the mean score of Awareness as a dimension of self directedness of Science female students was 48.67 out of the total score of 60 with the standard deviation of 6.22 and the standard error of mean of 1.10. From the said percentage, it can also be said that Science female students were very high in their awareness component of the self directedness with 77.31% of mean percentage. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be homogenous with low level of standard errors.

From the same table, it was observed that the mean score of Learning strategy as a dimension of

self directedness of Science female students 48.10 out of the total score of 60 with the standard deviation of 6.81 and the standard error of mean of 1.20. From the said percentage, it can be said that Science female students were high in planning their learning strategy component of the self directedness with 76.63 % of mean score. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be quite homogenous with moderate level of standard errors.

From the same table, it was observed that the mean score of Learning activity as a dimension of self directedness of Science female students 38.57 out of the total score of 60 with the standard deviation of 5.57 and the standard error of mean of 0.98 . From the said percentage, it can be said that Science female students were moderate level in planning their learning activity component of the self directedness with 61.32% of mean score. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be quite homogenous with low level of standard errors.

From the same table, it was observed that the mean score of Evaluation as a dimension of self directedness of Science female students 47.44 out of the total score of 60 with the standard deviation of 6.74 and the standard error of mean of 1.19. From the said percentage, it can be said that Science female students were high level in evaluating their learning component of the self directedness with 75.57% of mean score. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be quite homogenous with low level of standard errors.

From the same table, it was observed that the mean score of Interpersonal Skill as a dimension of self directedness of Science female students 46.42 out of the total score of 60 with the standard deviation of 8.56 and the standard error of mean of 1.51 . From the said percentage, it can be said that Science female students were moderate level in their Interpersonal Skill component of the self directedness with 73.91 % of mean score. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be quite homogenous with mild level of standard errors.

Table:4.9.Mean and Standard Deviation, Standard Error of Means and Maximum possible score wise distribution of Self directedness level of learning of Commerce Male students 19 (N) along with its Dimensions.

STREAM	GENDER	SELF DIRECTEDNESS DIMENSIONS	MAXIMUM SCORE	Mean	Percentage	standard deviation	standard error
COMMERCE	MALE	AWARENESS	60	43.94	73.24	8.57	1.51
		LEARNING STRATERGY	60	44.57	74.29	8.44	1.49
		LEARNING ACTIVITY	60	38.21	63.68	7.99	1.41
		EVALUATION	60	44.63	74.38	9.36	1.65
		INTERPERSONAL SKILL	60	45.94	76.57	8.51	1.5
		TOTAL	300	217.31	72.43	40.1	7.09

From the table 4.9, it was observed that the mean score of Commerce male student's level of self directedness was 217.31 out of the total score of 300 with the standard deviation of 40.10 and the standard error of mean of 7.09. From the said percentage, it can be said that were moderate level of self directedness with 72.43 % of mean score. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be quit homogenous with mild level of standard errors.

From the same table, it was observed that the mean score of Awareness as a dimension of self directedness of Commerce male students was 43.94 out of the total score of 60 with the standard deviation of 8.57 and the standard error of mean of 1.51. From the said percentage, it can also be said that Commerce male students were moderate level in their awareness component of the self directedness with 73.24 % of mean percentage. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be homogenous with mild level of standard errors.

From the same table, it was observed that the mean score of Learning strategy as a dimension of self directedness of Commerce male students 44.57 out of the total score of 60 with the standard deviation of 8.44 and the standard error of mean of 1.49. From the said percentage, it can be said that Commerce male students were high level in planning their learning strategy component of the self directedness with 74.29 % of mean score. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be quite homogenous with

moderate level of standard errors.

From the same table, it was observed that the mean score of Learning activity as a dimension of self directedness of Commerce male students 38.21 out of the total score of 60 with the standard deviation of 7.99 and the standard error of mean of 1.41 . From the said percentage, it can be said that Commerce male students were moderate level in planning their learning activity component of the self directedness with 63.68% of mean score. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be quite homogenous with moderate level of standard errors.

From the same table, it was observed that the mean score of Evaluation as a dimension of self directedness of Commerce male students 44.63 out of the total score of 60 with the standard deviation of 9.36 and the standard error of mean of 1.65 . From the said percentage, it can be said that Commerce male students were high level in evaluating their learning component of the self directedness with 74.38 % of mean score. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be quite homogenous with moderate level of standard errors.

From the same table, it was observed that the mean score of Interpersonal Skill as a dimension of self directedness of Commerce male students 45.94 out of the total score of 60 with the standard deviation of 8.51 and the standard error of mean of 1.50 . From the said percentage, it can be said that Commerce male students were high level in their Interpersonal Skill component of the self directedness with 76.57 % of mean score. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be quite homogenous with mild level of standard errors.

Table:4.10.Mean and Standard Deviation, Standard Error of Means and Maximum possible score wise distribution of Self directedness level of learning of Commerce Female students 24 (N) along with its Dimensions.

STREAM	GENDER	SELF DIRECTEDNESS DIMENSIONS	MAXIMUM SCORE	Mean	Percentage	standard deviation	standard error
COMMER	FEMALE	AWARENESS	60	38.33	63.88	6.61	1.16

CE		LEARNING STRATERGY	60	38	63.33	6.63	1.17
		LEARNING ACTIVITY	60	31.08	51.8	3.92	0.69
		EVALUATION	60	37.95	63.26	7.77	1.37
		INTERPERSONAL SKILL	60	38	63.33	8.04	1.42
		TOTAL	300	183.37	61.12	27.82	4.91

From the table 4.10, it was observed that the mean score of Commerce female student's level of self directedness was 183.37 out of the total score of 300 with the standard deviation of 27.82 and the standard error of mean of4.91. From the said percentage, it can be said that were moderate level of self directedness with 61.12 % of mean score. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be quit homogenous with mild level of standard errors.

From the same table, it was observed that the mean score of Awareness as a dimension of self directedness of Commerce female students was 38.33 out of the total score of 60 with the standard deviation of 6.61 and the standard error of mean of 1.16. From the said percentage, it can also be said that Commerce female students were moderate level in their awareness component of the self directedness with 63.88 % of mean percentage. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be homogenous with mild level of standard errors.

From the same table, it was observed that the mean score of Learning strategy as a dimension of self directedness of Commerce female students 38 out of the total score of 60 with the standard deviation of 6.63 and the standard error of mean of 1.17. From the said percentage, it can be said that Commerce female students were moderate level in planning their learning strategy component of the self directedness with 63.33 % of mean score. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be quite homogenous with moderate level of standard errors.

From the same table, it was observed that the mean score of Learning activity as a dimension of self directedness of Commerce female students 31.08 out of the total score of 60 with the standard deviation of 3.92 and the standard error of mean of 0.69 . From the said percentage, it can be said that Commerce female students were moderate level in planning their learning activity component of the self directedness with 51.80% of mean score. Also, from the said

standard deviation and standard error of mean, it can be said that the group seems to be quite homogenous with moderate level of standard errors.

From the same table, it was observed that the mean score of Evaluation as a dimension of self directedness of Commerce female students 37.95 out of the total score of 60 with the standard deviation of 7.77 and the standard error of mean of 1.37 . From the said percentage, it can be said that Commerce female students were moderate level in evaluating their learning component of the self directedness with 63.26 % of mean score. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be quite homogenous with moderate level of standard errors.

From the same table, it was observed that the mean score of Interpersonal Skill as a dimension of self directedness of Commerce female students 38 out of the total score of 60 with the standard deviation of 8.04 and the standard error of mean of 1.42 . From the said percentage, it can be said that Commerce female students were moderate level in their Interpersonal Skill component of the self directedness with 63.33 % of mean score. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be quite homogenous with mild level of standard errors.

Table:4.11.Mean and Standard Deviation, Standard Error of Means and Maximum possible score wise distribution of Self directedness level of learning of Arts Male students 17 (N) along with its Dimensions.

STREAM	GENDER	SELF DIRECTEDNESS DIMENSIONS	MAXIMUM SCORE	Mean	Percentage	standard deviation	standard error
ARTS	MALE	AWARENESS	60	40.23	67.05	7.25	1.28
		LEARNING STRATERGY	60	40	66.66	7.87	1.39
		LEARNING ACTIVITY	60	33.82	56.37	6.5	1.14
		EVALUATION	60	37.7	62.84	9.6	1.69
		INTERPERSONAL SKILL	60	38.82	64.7	8.54	1.51
		TOTAL	300	190.58	63.52	32.97	5.82

From the table 4.11, it was observed that the mean score of Arts male student's level of self directedness was 190.58 out of the total score of 300 with the standard deviation of 32.97 and the standard error of mean of5.82. From the said percentage, it can be said that were moderate level of self directedness with 63.52% of mean score. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be quit homogenous with mild level of standard errors.

From the same table, it was observed that the mean score of Awareness as a dimension of self directedness of Arts male students was 40.23 out of the total score of 60 with the standard deviation of 7.25 and the standard error of mean of 1.28. From the said percentage, it can also be said that Arts male students were moderate level in their awareness component of the self directedness with 67.05% of mean percentage. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be homogenous with mild level of standard errors.

From the same table, it was observed that the mean score of Learning strategy as a dimension of self directedness of Arts male students 40 out of the total score of 60 with the standard deviation of 7.87 and the standard error of mean of 1.28. From the said percentage, it can be said that Arts male students were moderate level in planning their learning strategy component of the self directedness with 66.66 % of mean score. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be quite homogenous with moderate level of standard errors.

From the same table, it was observed that the mean score of Learning activity as a dimension of self directedness of Arts male students 33.82 out of the total score of 60 with the standard deviation of 6.5 and the standard error of mean of 1.14 . From the said percentage, it can be said that Arts male students were moderate level in planning their learning activity component of the self directedness with 56.37% of mean score. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be quite homogenous with moderate level of standard errors.

From the same table, it was observed that the mean score of Evaluation as a dimension of self directedness of Arts male students 37.70 out of the total score of 60 with the standard deviation

of 9.60 and the standard error of mean of 1.69 . From the said percentage, it can be said that Arts male students were moderate level in evaluating their learning component of the self directedness with 62.84 % of mean score. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be quite homogenous with moderate level of standard errors.

From the same table, it was observed that the mean score of Interpersonal Skill as a dimension of self directedness of Arts male students 38.82 out of the total score of 60 with the standard deviation of 8.54 and the standard error of mean of 1.51 . From the said percentage, it can be said that Arts male students were moderate level in their Interpersonal Skill component of the self directedness with 64.70 % of mean score. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be quite homogenous with mild level of standard errors.

Table:4.12.Mean and Standard Deviation, Standard Error of Means and Maximum possible score wise distribution of Self directedness level of learning of Arts Female students 32 (N) along with its Dimensions.

STREAM	GENDER	SELF DIRECTEDNESS DIMENSIONS	MAXIMUM SCORE	Mean	Percentage	standard deviation	standard error
ARTS	FEMALE	AWARENESS	60	41.5	69.16	10.93	1.93
		LEARNING STRATERGY	60	41.53	69.21	7.21	1.27
		LEARNING ACTIVITY	60	32.03	53.38	6.82	1.2
		EVALUATION	60	39.56	65.93	7.79	1.37
		INTERPERSONAL SKILL	60	41.09	68.48	6.93	1.22
		TOTAL	300	195.71	65.23	31.32	5.53

From the table 4.12, it was observed that the mean score of Arts female student's level of self directedness was 195.71 out of the total score of 300 with the standard deviation of 31.32 and the standard error of mean o5f 5.53. From the said percentage, it can be said that were moderate

level of self directedness with 65.23 % of mean score. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be quit homogenous with mild level of standard errors.

From the same table, it was observed that the mean score of Awareness as a dimension of self directedness of Arts female students was 41.50 out of the total score of 60 with the standard deviation of 10.93 and the standard error of mean of 1.93. From the said percentage, it can also be said that Arts female students were moderate level in their awareness component of the self directedness with 69.16% of mean percentage. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be homogenous with mild level of standard errors.

From the same table, it was observed that the mean score of Learning strategy as a dimension of self directedness of Arts female students 41.53 out of the total score of 60 with the standard deviation of 7.21 and the standard error of mean of 1.27. From the said percentage, it can be said that Arts female students were moderate level in planning their learning strategy component of the self directedness with 69.21 % of mean score. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be quite homogenous with moderate level of standard errors.

From the same table, it was observed that the mean score of Learning activity as a dimension of self directedness of Arts female students 32.03 out of the total score of 60 with the standard deviation of 6.82 and the standard error of mean of 1.20 . From the said percentage, it can be said that Arts female students were moderate level in planning their learning activity component of the self directedness with 53.38% of mean score. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be quite homogenous with moderate level of standard errors.

From the same table, it was observed that the mean score of Evaluation as a dimension of self directedness of Arts female students 39.56 out of the total score of 60 with the standard deviation of 7.79 and the standard error of mean of 1.37. From the said percentage, it can be said that Arts female students were moderate level in evaluating their learning component of the self directedness with 65.93% of mean score. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be quite homogenous with moderate level of

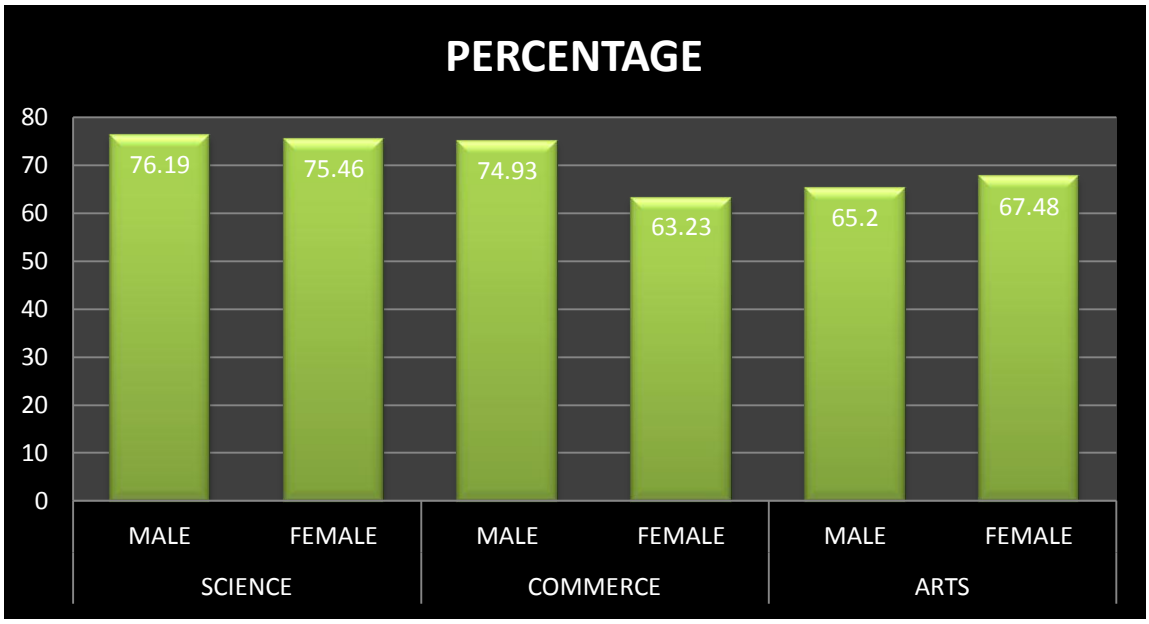
standard errors.

From the same table, it was observed that the mean score of Interpersonal Skill as a dimension of self directedness of Arts female students 41.09 out of the total score of 60 with the standard deviation of 6.93 and the standard error of mean of 1.22 . From the said percentage, it can be said that Arts female students were moderate level in their Interpersonal Skill component of the self directedness with 68.48 % of mean score. Also, from the said standard deviation and standard error of mean, it can be said that the group seems to be quite homogenous with mild level of standard errors.

Table :4.13. MEAN AND PERCENTAGE OF THE SAMPLE WITH RESPECT TO DIFFERENT STREAMS AND GENDER.

STREAMS	GENDER	POPULATION	SUM OF DIFFERENT ITEMS	PERCENTAGE	Level of self-directness
SCIENCE	MALE	32	7071	76.19	**High level**
	FEMALE	49	10724	75.46	**High level**
COMMERCE	MALE	19	4129	74.93	**Moderate level**
	FEMALE	24	4401	63.23	**Moderate level**
ARTS	MALE	17	3240	65.20	**Moderate level**
	FEMALE	32	6263	67.48	**Moderate level**

Fifure4.4: Bar graph comparing the percentage of different stream with respect to gender



As seen from the table 4.4, With respect to Science stream the percentage of boys is 76.19% and girl is 75.46%. Similarly, for Commerce stream the percentage of boys is 74.93% and girl is 63.32%. The response for Arts stream percentage of boys is 65.20% and girl is 67.48%. From the table given by Willomson shows those Science students both boys and girls are having high level of self-directedness. And Commerce and Arts students have moderate level of self-directedness.

Table:4.14. Responses of higher secondary teachers of different school with respect to 5 different dimensions of level self directedness.

The number of sample of the teacher is 29 from the 3 different schools with specific to different streams. Only the higher secondary teacher was the sample of this study.

Sr. No	QUESTION	FREQUENCY(F) and PERCENTAGE (P)	NO	Neutral	YES
1	**Are students taking responsibility for their learning**	F	16	8	5
		P	55.17%	27.58 %	17.24%
2	**Are students able to plan and set the learning goals? Give some name of the activity that they have planed?**	F	9	7	13
		P	31.03%	24.13 %	44.82%
3	**Do students relate their experience with new knowledge? Give some examples.**	F	7	0	22
		P	24.13%	0	75.86%

4	**Do students like interactive teaching-learning? How do they respond in an interactive session?**	F	5	0	24
		P	17.24%	0	82.75%
5	**Are interactive sessions done in this pandemic situation while using the technology for teaching learning process?**	F	9	1	19
		P	31.03%	3.44 %	65.51%
6	**Do students concentrate in learning activities? How can you know that they are concentrating in the activities?**	F	2	0	27
		P	6.89%	0	93.10%
7	**Do students plan there learning activities, if yes give some example.**	F	13	0	16
		P	44.82%	0	55.17%
8	**Are students excited during the learning activities? Do they ask question? Which type of questions is asked?**	F	3	0	26
		P	10.34%	0	89.65%
9	**How do student monitor the learning process?**	F	8	3	18
		P	27.58%	10.34 %	62.06 %
10	**Students expecting their appreciation and criticism, how do they react to that particular situation?**	F	7	0	22
		P	24.13 %	0	75.86%
11	**How feedback is given to each and every student?**	F	17	0	12
		P	58.62 %	0	41.37%
12	**Have your students made that portfolio? Have you checked it?**	F	17	0	12
		P	58.62 %	0	41.37%
13	**Do you give students opportunity to learn on their own? Explain it.**	F	8	1	20
		P	27.58 %	3.44 %	68.96%
14	**Do students correlate the learning of other subject and implement in daily life? Give example.**	F	3	0	26
		P	10.34 %	0	89.65%
15	**Interpersonal skills are being developed by teaching learning process. Do you agree with the statement?**	F	0	0	29
		P	0	0	100%

The table 4.4 reveals the question wise frequency and percentage of the reactions by the teacher about their students in becoming self directed learning.

QUESTION 1: Are students taking responsibility for their learning. Out of total 100% (29) teacher, the 17.27% (5) teacher told that students take the responsibility 27.58% (8) were neutral and 55.17%(16) teacher told that they don't take the responsibility on their own. Students are been always given responsibility then only they do their learning. There are only few students who take responsibility of their learning.

QUESTION 2: Are students able to plan and set the learning goals learning. Out of total 100% (29) teacher, 44.82% (13) the teacher told that students plan and set the learning goals

learning24.13% (7) were neutral and 31.03 %(9) teacher told that they don't plan and set the learning goals learning. Students are been always given planned learning goal. No initiation planning is done by students. There are only few students planned their learning goal.

QUESTION 3: Do students relate their experience with new knowledge, Out of total 100% (29) teacher, 75.86% (22) the teacher told that relate their experience with new knowledge and 24.13%(7) teacher told that they don't relate their experience with new knowledge. Students are relating their experience with new knowledge. They even relate their knowledge of different subject and create new idea.

QUESTION4: Do students like interactive teaching-learning. Out of total 100% (29) teacher, 82.75 % (24) the teacher told that students like interactive teaching-learning, and 17.24 %(5) teacher told that they don't like interactive teaching-learning. Mostly students like to talk with teacher share their knowledge with teacher, but there are even introvert students present in the same class.

QUESTION 5: Are interactive sessions done in this pandemic situation while using the technology for teaching learning process. Out of total 100% (29) teacher, 65.51 % (19) the teacher told that students interactive sessions done in this pandemic situation while using the technology for teaching learning process were neutral and 3.44% (1) and 31.03%(9) teacher told that they don't interactive sessions done in this pandemic situation while using the technology for teaching learning process. There less interaction but less compare to the normal mode. The students were only given the response will teacher was asking them the question.

QUESTION 6: Do students concentrate in learning activities Out of total 100% (29) teacher, 93.10 % (27) the teacher told that students concentrate in learning activities and 6.89%(2) teacher told that they don't concentrate in learning activities. Students like to learn by doing activity; they are energetic at that particular time. Many questions also arise.

QUESTION 7: Do students plan there learning activities Out of total 100% (29) teacher, 55.17 % (16) the teacher told that students plan there learning activities and 44.82 % (13)teacher told that they don't plan there learning activities. If the specific task is given to do a activity then they plan but they never plan for themselves.

QUESTION 8: Are students excited during the learning activities, Out of total 100% (29) teacher, 89.65 % (26) the teacher told that students are excited during the learning activities and

10.34 % (3) teacher told that they aren't excited during the learning activities. Students are always excited during activity time they have time to enjoy and learn.

QUESTION 9: Student monitor the learning process, Out of total 100% (29) teacher, 62.06 % (18) the teacher told that student monitor the learning process and were neutral 10.34 % (3) and 27.58 % (8) teacher told that they aren't monitor the learning process. Majority of the students monitor their learning process if they have planned their goals. If with full interest, they are doing then they monitor their learning.

QUESTION 10: Students expect their appreciation and criticism, Out of total 100% (29) teacher, the 75.86 % (22) teacher told that Students expect their appreciation and criticism and 24.13 % (7) teacher told that they aren't expecting their appreciation and criticism. The students are always happy when it comes to the appreciation part, but the criticism is depending upon the individual students and also the liking of the teacher.

QUESTION 11: Feedback is given to each and every student, out of total 100% (29) teacher, 41.37 % (12) the teacher told that Feedback is given to each and every student and 58.62 % (17) teacher told that they aren't Feedback is given to each and every student. The students are given feedback when they participate in any of the function and event. Even if some behavior of the students are seen right or wrong at that particular time they are given feedback.

QUESTION 12: Students make their portfolio, Out of total 100% (29) teacher; 41.37 % (12) the teacher told that Students make their portfolio and 58.62 % (17) teacher told that they aren't Students make their portfolio. Teachers make their portfolio but students never make on their own. If a task is given then they do it without they never make. In these the students were been told to make their portfolio in a particular school.

QUESTION 13: You give students opportunity to learn on their own, Out of total 100% (29) teacher, the 68.96 % (20) teacher told that Students are given opportunity to learn on their own student and were neutral 3.44 % (1) and 27.58% (8) teacher told that they aren't given opportunity to learn on their own student. Few students in this pandemic situation have started learning on their own the students have seen the video and read it from the Google and they were answering to teacher. Not all the students were doing but yes few students were doing and in particular subject itself. The teachers of math's and Science have reviewed about this.

QUESTION 14: Students correlate the learning of other subject and implement in daily life, Out

of total 100% (29) teacher, the 89.65 % (26) teacher told that Students correlate the learning of other subject and implement in daily life and 10.34 % (3) teacher told that they aren't correlating the learning of other subject and implement in daily life. Students are correlating their learning Commerce teacher and Science teacher has given some example like banking in Commerce.

QUESTION 15: Interpersonal skills are being developed by teaching learning process Out of total 100% (29) teacher, 100% (29)all the teacher have accepted that interpersonal skill is been developed by the teaching learning process. The students are good observer so they observe the teacher and learn many things like maintaining body language, way of behavior with other, way of presentation and many other things are been learnt.

4.2.0 RELATIONAL ANALYSIS OF DATA

The comparison between gender and different streams were found out using the statistical measures using independent t-test. It also helped the researcher to test the formulated null hypotheses related to these three variables. To find the comparison between gender stream and self-directed learning scale of XI standard students and to test the H01 i.e. ―There will be no significant difference in the mean score of boys and girls of Science students on the levels of self-directed learning, analyzed data is presented in table 4.5followed by the interpretation.

Table 4.15: Mean, standard deviation, standard error and t test of boys and girls with respect science stream

Stream	Gender	N	Mean	Standard deviation	Standard error	T-value
SCIENCE	BOYS	32	220.96	4.91	2.19	1.26
	GIRLS	49	229.22	5.41	2.42	

As suggested by table 4.15 the mean score of the Boys and Girls is 220.96 and 229.22 respectively. The standard deviation for Boys and Girls group is 4.91 and 5.41 and the standard error is2.19and 2.42 respectively. It can be said that the group seems to be homogeneous with moderate level of standard error.

The t-test value for the Science stream is 1.26 df is 0.10 at 0.05 level of significance which shows that there is no significant difference between the mean scores of the Boys and Girls of Science. Hence, **$H_0$1-** There will be no significant difference in the mean score of boys and girls of Science students on the levels of self-directed learning is retained. The both groups are equivalent in becoming self-directed learner. Thus it can be said that both girls and boys have same level of self-directedness in Science stream.

To find the comparison between boys and girls of arts stream and to test the**$H_0$2 i.e.** there will be no significant difference in the mean score of boys and girls of arts students on the levels of self-directed learning.

Table4.16: Mean, standard deviation, standard error and t test of boys and girls with respect arts stream.

Stream	Gender	N	Mean	Standard deviation	Standard error	T- value
ARTS	BOYS	17	190.58	5.07	2.26	0.53
	GIRLS	32	195.71	6.16	2.75	

As suggested by table 4.16 the mean score of the Boys 190.58and Girls is 195.71 respectively. The standard deviation for Boys and Girls group is 5.07 and 6.61 and the standard error is 2.26 and 2.75 respectively. It can be said that the group seems to be homogeneous with moderate level of standard error.

The t-test value for the Arts stream is 0.53 df is 0.29 at 0.05 level of significance which shows that there is no significant difference between the mean scores of the Boys and Girls of Arts. Hence, **$H_0$2-** There will be no significant difference in the mean score of boys and girls of Arts students on the levels of self directed learning is retained. The both groups are equivalent in becoming self directed learner. Thus it can be said that both girls and boys have same level of self directedness in Arts stream.

To find the comparison between boys and girls of Commerce stream and to test the **$H_0$3 i.e.** there will be no significant difference in the mean score of boys and girls of Commerce students on the levels of self directed learning.

Table 4.17: Mean, standard deviation, standard error and t test of boys and girls with respect commerce stream

Stream	Gender	N	Mean	Standard deviation	Standard error	T- value
COMMERCE	BOYS	19	217.31	4.63	2.07	2.92
	GIRLS	17	183.37	4.49	2.00	

As suggested by table 4.9 the mean score of the Boys 217.31 and Girls is 183.37 respectively. The standard deviation for Boys and Girls group is 4.63 and 4.4 and the standard error is 2.07 and 2.001 respectively. It can be said that the group seems to be heterogeneous with moderate level of standard error.

The t-test value for the Commerce stream is 2.92 df is 0.02 at 0.05 level of significance which shows that there is significant difference between the mean scores of the Boys and Girls of Commerce. Hence, **$H_0$3-** There will be no significant difference in the mean score of boys and girls of Commerce students on the levels of self-directed learning is rejected. The both groups are not having equivalent in becoming self-directed learner. Thus it can be said that both girls and boys don't have same level of self-directedness in Arts stream.

To find the comparison between Science and Commerce stream and to test the **$H_0$4 i.e.** There will be no significant difference in the mean score of Science and Commerce students on the levels of self-directed learning.

Table 4.18: Mean, standard deviation, standard error and t test of science and commerce

Stream	N	Mean	Standard deviation	Standard error	T- value
SCIENCE	81	216.00	5.00	2.23	0.33
COMMERCE	43	218.41	4.53	2.02	

As suggested by table 4.18 the mean score of the Science students is 216.00 and Commerce students is 218.4. The standard deviation for Science and Commerce students is 5.00 and 4.53 and the standard error is 2.23 and 2.02 respectively. It can be said that the group seems to be homogenous with moderate level of standard error.

The obtained t-test value for the Science and Commerce stream is 0.33.At 0.05 level of significance the value is 0.367 which is higher than the obtained value which means that there is no significant difference between the mean scores of the Science and Commerce. Hence, H04- There will be no significant difference in the mean score of boys and girls of Commerce students on the levels of self-directed learning is accepted. The both groups are not different in becoming self-directed learner.

To find the comparison between Science and Arts stream and to test the H05 i.e. there will be no significant difference in the mean score of Science and Arts students on the levels of self-directed learning.

Table 4.19: Mean, standard deviation, standard error and t test of science and arts

Stream	**N**	**Mean**	**Standard deviation**	**Standard error**	**T-value**
SCIENCE	81	216.00	5.00	2.23	3.02
ARTS	49	198.32	5.46	2.44	

As suggested by table 4.19 the mean score of the Science students is 216.00 and Arts students is 198.32. The standard deviation for Science students Arts students is 5.00 and 5.46 and the standard error is 2.23 and 2.44 respectively. It can be said that the group seems to be homogenous with moderate level of standard error.

The t-test value for the Science and Arts stream is 3.02 df is 0.014at 0.05 level of significance which shows that there is no significant difference between the mean scores of the Science and Commerce. Hence, **$H_0$5-** There will be no significant difference in the mean score of boys and girls of Commerce students on the levels of self directed learning is retained. The both groups are having equivalent in becoming self directed learner. Thus

it can be said that both groups have same level of self directedness in Arts stream.

To find the comparison between Arts and Commerce stream and to test the **$H_0$6 i.e.**There will be no significant difference in the mean score of arts and Commerce students on the levels of self directed learning.

Table 4.20: Mean, standard deviation, standard error and t -test of arts and commerce.

Stream	**N**	**Mean**	**Standard deviation**	**Standard error**	**T- value**
COMMERCE	43	218.41	4.53	2.02	2.61
ARTS	49	198.32	5.46	2.44	

As suggested by table 4.20 the mean score of the Commerce students and Arts students is 218.41 and Arts students is 198.32. The standard deviation for Science students Arts students is 4.53 and 5.46 and the standard error is 2.02 and 2.44 respectively. It can be said that the group seems to be homogenous with moderate level of standard error.

The t-test value for the Commerce and Arts stream is 2.61 df is 0.005 at 0.05 level of significance which shows that there is no significant difference between the mean scores of the Science and Commerce. Hence, **$H_0$6-** There will be no significant difference in the mean score of boys and girls of Commerce students on the levels of self directed learning is retained. The both groups are having equivalent in becoming self directed learner. Thus it can be said that both groups have same level of self directedness in Arts stream.

CHAPTER V

SUMMARY, DISSCUSSION AND CONCLUSION

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5.0.0 INTRODUCTION

This chapter presents the summary of the entire study, major findings of the present study, discussions of the major findings and suggestions for the future endeavors. The findings are drawn out from the analysis of the data and the interpretations of the data arrived from the data analyzed.

5.1.0. OVERVIEW OF STUDY

Education is the panacea for learning. Learning is a process through which the child acquires new modes of behavior or change in the existing mode of behavior. Changes in behavior that are brought by physical maturation or growth do not fall under learning. Learning is what we acquire through efforts after birth. The view of learning as memorizing information in separate compartments gave way to a problem-oriented view based on conceiving, knowing and understanding. Therefore, the importance attached to memorization faded as conceiving the nature of knowledge and learning has changed, and learning how to learn, gained ground.

The learning of the students can be possible through different formal, non formal and informal ways. Learner who have learned how to learn can organize their own learning, transfer new information to larger contexts, overcome difficulties, and they are open to development and change, they possess self-confidence and awareness, they are willing to learn, they can use various learning strategies, and they know their own learning styles, interests and talents (Rawson, 2000; Giese, 2006; Fredriksson and Hoskins, 2007; Hofmann, 2008). Even many policies, commissions and committees have giving idea of educating an individual will bring many change in their life and thinking style. Sarva Sikhsa Abhiyan, Right to Education gives information about free and compulsory education to all the students of age 14 years. Not only primary education is given importance but secondary and higher secondary education is also given importance. There is much responsibility for a teacher to transmit the knowledge to students, but at the same time this responsibility is to be given to the students to develop their

own strategy of learning. According to Kothari Commission (1964-66), the emphasis of learning in students to develop characters like self-help, formation and developing a sense of social commitment. Participation in meaningful and challenging programs of community service and national reconstruction should accordingly become an integral part of education.

Competition is there between the students in terms of marks not in terms of knowledge, so we should adopt and create the students for gaining knowledge in terms of lifelong education. Life-long education is a cherished goal of the educational process. Opportunities will be provided to the youth, housewives, agricultural and industrial workers and professionals to continue the education of their choice at their own pace. Organizing vocational training programs based on need and interest National policy on education (1986).

According to the National curriculum framework (2005) Connecting knowledge to life outside the school, ensuring that learning is shifted away from rote methods, enriching the curriculum to provide for the overall development of children rather than remain textbook centric, making examinations more flexible. We need to recognize that rights and choices in themselves cannot be exercised until central human capabilities are fulfilled. To make it possible for marginalized learners, to claim their rights as well as play an active role in shaping collective life, enable them to develop their capabilities of becoming autonomous and equal citizens. Education must aim to be character-making, enabling learners to be ethical, rational, compassionate, and caring, while at the same time preparing them for gainful, fulfilling employment. National Policy On Education (2020) It is becoming increasingly important that children not only learn, but learn how to learn. Education must thus, move towards less content, and more towards learning about how to think critically and solve problems, how to be creative and multidisciplinary, and how to innovate, adapt, and absorb new material in the novel and changing fields. While learning by rote can be beneficial in certain contexts, pedagogy must evolve to make education more experiential, holistic and integrated, discovery-oriented, learner-centered, discussion-based, flexible, and, of course, enjoyable. The government is also focusing upon the growing towards learning by doing, hands on experience etc; this information provides the knowledge which will be applicable and unforgettable knowledge. The learner can relate their experience and become a lifelong learner.

Lifelong learning focuses on the knowledge and skills needed by everyone regardless of age. The literature reveals that lifelong learning covers various skills known as twenty-first-century skills and these skills are thought to be increasingly important in information societies. That

information will be gained by the inquiry process. The inquiry process is from once own interest in knowing the facts, this way the Self-directed learning enables individuals to improve their self-confidence, autonomy, motivation and lifelong learning skills (O'Shea, 2003). It turns learners into active participants in the learning process and encourages them to become deep learners (Spencer and Jordan, 1999).

Self-directed learning has been deep-rooted in India since historical times as an example of Mahabharata, Ekalavya was a self-directed learner, by observing the guru Dronacharya. Ekalavya has learned the art of wars by his interest.

5.2 NATURE AND MEANING OF SELF-DIRECTED LEARNING (SDL)

According to Vaman Shivram Apte ("Sanskrit - Hindi dictionary", 1999), self-directed learning is the sum of three words, respectively, self, directed and learning. In which the word self refers to itself. The directed word refers to the successful operation of a task and Information or guidance is given to perfection. The word learning refers to the state of attainment of any knowledge or skill. Thus self-directed perceived learning in its etymological sense refers to the process of self-directed and guided learning by an individual for the attainment of knowledge or skill.

Self-directed learning has been described in the literature in two forms, such as outcome and process. When self-directed learning is seen as a result, it is believed that the goal of teaching is the creation of a self-directed scholar. To achieve this goal, the teacher is expected to create an environment in which the self-directed scholar can develop (Long, 2007). Self-directed learning is also described as a process of learning in which the scholar is responsible for the operation of the learning and the result obtained. In our daily life, when information increases exponentially, these qualities are required from updating individuals. After all, people who can direct their learning have acquired ways of reaching information, can think at higher levels and organize their learning. In short, they are individuals who have mastered how to learn. According to many authors the self-directed learning has evolved accordingly:

Knowles, (1975) Self-directed is also known as learning by oneself, self-directed learning in its largest sense refers to individuals ability to take initiative to identify their own learning needs, their ability to determine their learning goals, their ability to define the sources they need in

order to learn, their ability to choose/use appropriate learning strategies and evaluate learning outcomes with or without help from an outside.

Mocker and Spear (1982) Self-direction is a dimension of lifelong learning and facilitates it through formal and informal learning.

Candy (1990) Self-directed learning is a way of turning individuals into lifelong learners. On the other hand, one of the main aims of lifelong learning is to equip individuals with skills and competencies that enable them to learn by themselves. According to this belief, self-directed learning is both the meaning and the outcome of lifelong learning .

Brockett and Hiemstra (1991) state that self-direction needs to be considered with a perspective of (understanding of) lifelong learning. According to this, lifelong and self-directed learning are related concepts and they form basis to one another.

Spencer and Jordan (1999), self-directed learning prepares individuals for lifelong learning.

Merriam et al. (2007) Self-directed learning is a process where individuals take primary charge of planning, continuing and evaluating their learning experiences.

Brookfield (2009). Self-directed learning includes the conceptualization, design, implementation and evaluation of learning guided by learners

Ahmed(2011) said, 'A process in which a person takes responsibility, collaboration with others, for diagnosing his or her own learning needs, planning and engaging in a sequence of learning experiences to attain these objectives and evaluating progress towards these objectives".

Self directed learning is an unending process and learner takes their own responsibility to learn with or without any external source. It will be a part of becoming lifelong learner with deep understanding and actively participating in the learning process through formal non formal and in formal way.

5.3 CHARACTERISTICS OF SELF DIRECTED LEARNING

The particular combination of qualities in a person that makes them different from others in self directed learning are:

The current changes in society are affecting education in more ways. The increasing access to technology has increased the higher expectations of students and communities. In light of these changes and their effects, the researcher feels that self-directed learning is crucial in meeting the teaching/learning needs of students. By using the knowledge and skills learned, the ability to adapt to new situations develops in the companionship.

5.4 STATEMENT OF PROBLEM:

A study of level of self-directedness in learning on students of standard XI

5.5 OBJECTIVES:

1. To study the level of self-directedness in learning on students of standard XI.
2. To study the level of self-directedness in learning of different stream of Education on students of XI standard
3. To study the level of self-directedness in learning of girls and boys of XI standard students.
4. To study the level of self-directedness in learning of girls and boys of XI standard students with respect to different stream.
5. To study the interaction effect of the level of self-directedness in learning of different stream of education and sex of XI standard students.
6. To study the level of self-directedness of students in terms of teachers' perspective,

5.6 HYPOTHESIS:

$H_0$1 There will be no significant difference in the mean score of boys and girls of Science students on the levels of self-directed learning.

$H_0$2 There will be no significant difference in the mean score of boys and girls of arts students on the levels of self-directed learning.

$H_0$3 There will be no significant difference in the mean score of boys and girls of Commerce students on the levels of self-directed learning.

$H_0$4 There will be no significant difference in the mean score of Science and Commerce students on the levels of self-directed learning.

$H_0$5 There will be no significant difference in the mean score of Science and arts students on the levels of self-directed learning.

$H_0$6 There will be no significant difference in the mean score of arts and Commerce students on the levels of self-directed learning.

5.7 EXPLANATION OF TERM:

Self-directed learning prepares an individual to learn by oneself and with the help

from outside source, through planning and understanding of individual needs and capability.

5.8 OPERATIONAL DEFINITION OF THE TERM:

In this study Self-directed learning means a process that an individual has to participate in the learning with or without the help of others. This is measured in five components namely awareness about the learning need, choosing appropriate learning strategies and learning activities, identify their interpersonal skills and evaluating their learning outcomes.

5.9 DELIMITATION OF THE STUDY:

The present study was delimited to the XI standard students of rural area of Navsari district and block Vansda. It was also delimited to the only Gujarati medium schools with all the three streams of the Gujarat State Education Board.

5.10 METHODOLOGY OF THE STUDY

The present study aimed at to find out the level of self-directedness in learning of the XI standard students. Survey method was used in the present study. In the survey research, data is collected from a large sample and analyzed representing a specific population. On the basis of the analysis of data the description of the group is done and on the basis of the inference statistics the inference is done for the entire population. It seeks to find the real facts with regard to existing conditions. Following process of the survey method was used in the present study.

5.11 DESIGN OF THE STUDY

Due to the pandemic condition convenient sampling technique was used to collect the data of students.

5.12 VARIABLES

The following variables will be considered for the proposed study.

C. Independent variable: In the proposed study,

- **Stream of students:** The students will be categorized into three groups based on they have selected their stream like Arts, Commerce, and Science of standard XI.
- **Sex (Boys and Girls)** –On the basis of sex the sample has been categorized into boys and girls. There are chances that sex may play a significant role in the formulation of Self- Directed Learning program

D. Dependent variables:

- The self-directed learning will be the dependent variable.

5.13 POPULATION

All the students studying in XI Standard in Block Vansda, Gujarati Medium School affiliated to Gujarat State Education Board in the city of Navsari in academic year 2020-2021 was constituted as the population for the proposed study. The school taken for that study should have all the three streams like Science, Commerce, and Arts. Approximately there are total 5 schools in that block having all the three streams.

5.13.1 SAMPLES

The sample of the present study was selected with the help of convenient sampling considering the criteria i.e. availability of the school as per the permission given by the school to the investigator. The researcher adopted questioner method to collect the data of study among different stream (Science, arts and Commerce) and also gender (male and female) students, and from that

school data was also collected from the teacher. Only Gujarati medium school, which is affiliated to Gujarat State Education Board from the Block Vansda, was selected as a sample for the present study. The name of the school was “Shree Janta High School, Vidhya Kiran High School and Shree Pratap High School in which there were 509 students studying in XI standard. The total number of students in each school of standard XI is 106,162 and 241 respectively.

5.14 TOOL FOR DATA COLLECTION

The researcher has made a Google form of the tool that was been translated in Guajarati language and validated with 5 experts. From the tool, questionnaire for teachers was been prepared by the investigator and validated from 5 experts. These tools were having open ended question for getting the information from teachers about their students.

The tool of Self-directed learning was used for these study was prepared by Williamsons.

To determine the internal consistency Cronbach's coefficient alpha was computed. In the alpha coefficient reliability test a result of more than 0.70 is generally considered to have an acceptable and satisfactory internal consistency (Nolan and Nolan 1997. Nunnally 1978. de Vaus 1991). This study aimed to develop a valid and reliable scale to assess learners' selfdirected learning skills. The content validity of the SRSSDL dimensions were established following the review of related literature and through the appraisal of the panel of experts participating in the Delphi technique .Broad area of the SRSSDL Cronbach's alpha coefficient Awareness 0.79 Learning strategies 0.73 Learning activities 0.71 Evaluation 0.71 Inter-personal Skills 0.71. The tool has following five components:

AWARENESS: Awareness in general means, knowledgeable being conscious; cognizant, informed alert. Awareness is the state or ability to perceive, to feel, or to be conscious of events, objects, or sensory patterns. In this level of consciousness, sense data can be confirmed by an observer without necessarily

implying understanding. The possessor of any knowledge must contain awareness but mere awareness does not contain any type of knowledge. More broadly, it is the state or quality of being aware of something. Twelve dimensions relating to learners' understanding of the factors contributing to becoming self-directed learners.

LEARNING STRATEGIES: Actions and operations used by students in order to optimize the processes of obtaining and storing information, extracting it from memory and its use. Learning strategies are tactics students use to assist them in the learning process. Skills students use to understand different tasks and choose and effectively employ the appropriate technique to accomplish tasks or meet goals . Twelve dimensions explaining the various strategies self-directed learners should adopt in order to become self-directed in their learning processes.

Learning activities: The things learners and facilitators do, within learning events, that are intended to bring about the desired learning outcomes. Those tasks that students undertake to achieve a set of intended outcomes. Learning activities in relation to the design process: "as a specific interaction of learner(s) with other(s) using specific tools and resources, orientated towards specific outcomes" (Beetham & Sharpe, 2007, p. 28) Twelve dimensions specifying the requisite learning activities learners should actively engage in order to become self-directed in their learning processes.

Evaluation: Evaluation is a process that critically examines a program. It involves collecting and analyzing information about a program's activities, characteristics, and outcomes. Its purpose is to make judgments about a program, to improve its effectiveness, and/or to inform programming decisions (Patton, 1987). Twelve dimensions revealing learners' specific attributes in order to help monitor their learning activities.

Interpersonal skills: Interpersonal skills involve the ability to communicate and build relationships with others. Often called 'people skills', they tend to incorporate both your innate personality traits and how you've learned to handle certain social situations. Effective interpersonal skills can help you during the job

interview process and can have a positive impact on your career advancement. Interpersonal skills are traits you rely on when you interact and communicate with others. They cover a variety of scenarios where communication and cooperation are essential. Twelve dimensions relating to learners' skills in inter-personal relationships, which are pre-requisite to their becoming self-directed learners.

Responses for each item are be rated by using a five-point scale: 5 = always: 4 = often: 3 = sometimes: 2 = seldom: 1 = never. The categorization of SDL dimensions into five broad areas allows for specific areas where students lack abilities in their self-directedness to be identified and support offered. Students with high scores, indicating a high level of self-directedness in their learning, should also be supported in order to help maintain and further develop their abilities in becoming independent life-long learners.

All the dimensions of the SDL were positively stated. For each item the 'always' response was rated as 5 and the 'never' response was rated as 1. Thus, the maximum and the minimum possible scores of the SDL were 300 and 60 respectively. A score sheet was developed to interpret responses. The scoring range in Table 2 indicates the respondents' level of self-direction in learning based, on their individual scores and the corresponding interpretation.

Scoring range	Level of self-directed learning	Interpretation
20%-47%	Low	Guidance is needed from the teacher Any specific changes necessary for improvement must be identified and a possible re-structuring of the methods of learning identified.
48%-74%	Moderate	This is half way to becoming a self-directed learner. Areas for improvement must be identified and evaluated, and a strategy adopted with teacher guidance when necessary. This indicates effective self-directed learning.

75%-100%	High	The goal is to maintain progress by identifying strengths and methods for consolidation of the students' effective self-directed learning.

Reactions Scale: To find out the level of self-directedness in the students of XI, a Likert scale i.e. five-point scale was prepared to know the reaction of the students that was taken from Williamsons research as the question are show above and the researcher has translated that tool into Gujarati for the better understanding of the students. After translating also, the tools were being validated by the experts. It would help the investigator to know the reaction of XI standard students for becoming self-directed learner.

Questionnaire. The questionnaire was prepared by the researcher to collect the information about teachers 'perspective for their students 'level of self-directedness. The researcher has prepared 15 questions related to the tools used for students. The questions were open ended.

5.15 PROCEDURE FOR THE DATA COLLECTION

PLANNING AND EXECUTION

- **Visit to schools:** The researcher wanted the data of the school which was having all the streams like Science, Commerce and arts. There were 5 schools having all the streams. But due to pandemic situation 3 school has granted the permission. The data was collected from the 3 schools.
- **Permission from principals:** The researcher has visited the schools for taking permission and all have given permission of specific day for visiting the school and also discussed the procedure of collecting the data from the students.
- **Interaction with teacher:** The researcher was introduced to the mentor teacher and that mentor teacher has given the information about the students and has introduced the class teacher of that particular streams. The class teachers have added the

researcher in the groups for sending the link and interacting with the students. After all the work has been done, all the teachers were given the questionnaire for collecting the data from the teacher on different days.

- **Google meet with students:** The researcher has interacted with students on Google meet. The researcher has conducted this meet to give idea about the Google form and also about the discussing about the survey.
- **Online filling of Google form:** The research has sent the link a day prior to the class teacher with specific timing. After discussion the link of Google form was send to the students. Some students have filled the form on particular day others have filled by giving reminder notes 3 to 4 times by their teacher**s**.

5.16 ANALYSIS OF DATA

For the purpose of descriptive analysis of data mean, frequency, percentage, standard deviation, were used. For the purpose of inferential analysis, independent t test was used as per the requirement of the data.

5.17 MAJOR FINDINGS OF THE STUDY

1. The students of XI standard level of Self directedness in Science stream the percentage of boys are 76.19% and girl is 75.46%. By the interpretation table given by Willomson shows those Science students both boys and girls are having high level of self directedness.
2. The students of XI standard level of self directedness in Commerce stream the percentage of boys is 74.93% and girl is 63.32%. By the interpretation table given by Willomson shows those Commerce students both boys and girls are having moderate level of self directedness.
3. The students of XI standard level of self directedness in for Arts stream percentage of boys is 65.20% and girl is 67.48%.from the table given by Willomson shows students have moderate level of self directedness.

4. Students are been always given responsibility then only they do their learning. There are only few students who take responsibility of their learning.
5. Students are been always given planned learning goal. No initiation planning is done by students. There are only few students planned their learning goal.
6. Students are relating their experience with new knowledge. They even relate their knowledge of different subject and create new idea.
7. Mostly students like to talk with teacher share their knowledge with teacher, but there are even introvert students present in the same class.
8. There was interaction but less compare to the normal mode. The students were only given the response will teacher was asking them the question.
9. Students like to learn by doing activity; they are energetic at that particular time. Many questions also arise.
10. If the specific task is given to do the activity then they plan but they never plan for themselves. Students are always excited during activity time they have time to enjoy and learn.
11. Majority of the students monitor their learning process if they have planned their goals. If with full interest they are doing then they monitor their learning. The students are always happy when it comes to the appreciation part, but the criticism is depending upon the individual students and also the liking of the teacher.
12. The students are given feedback when they participate in any of the function and event. Even if some behavior of the students are seen right or wrong at that particular time they are given feedback.
13. Teachers make their portfolio but students never make on their own. If a task is given then they do it without they never make. In these the students were been told to make their portfolio in a particular school.
14. Few students in this pandemic situation have started learning on their own the students have seen the video and read it from the Google and they were answering to teacher. Not all the students were doing but yes few students were doing and in particular subject itself. The teachers of math's and Science have reviewed about this. Students are

correlating their learning.

15. The students are good observer so they observe the teacher and learn many thing like maintaining body language, way of behavior with other, way of presentation and many other things are been learnt.
16. The comparison between the mean score of girls and boys of Science stream was having equivalence. Both the students can become self directed learner.
17. The comparison between the mean score of girls and boys of Commerce stream was not having equivalence. In these boys is more self directed learner than the girls.
18. The comparison between the mean score of girls and boys of arts stream was having equivalence. Both the students can become self directed learner.
19. The comparison between the mean score of Science and Commerce stream has shown difference. Science students are more self directed learner then the Commerce students.
20. The comparisons between the mean score of Science and arts stream are similar. They can be self directed learner but the level can vary.
21. The comparisons between the mean score of Commerce and arts stream are similar. They can be self directed learner but the level can vary.

5.18 IMPLICATIONS OF THE PRESENT STUDY

The following are the implications drawn out from the findings of the present study:

The findings can give suggestions to government and non- government organizations to frame and develop the curriculum for self directed learner also.

To introspect about oneself at the adolescent age is required. So some program should be developed that students can know themselves better to take right decision for their future.

5.19 SUGGESTION FOR FURTHER STUDIES

The present research was limited to XI standard Students of Gujarati medium school of rural area, block Vansda and cluster Navsari of Gujarat State.

The researcher would like to suggest some more area and issues for the further studies which are as below.

- Similar study can be conducted into other standards and in different affiliated boards.
- The study can be conducted with respect to different medium of instruct.
- Comparative study of urban and rural area can be done.
- The studies could be conducted with a little bigger sample.
- The study can be conducted in urban area.

5.20 CONCLUSION

The present study was conducted to determine the level of self-directedness of XI standard students and to compare the streams and gender playing a role in finding the level of self-directedness. The findings of the study revealed that most of the Science students have a high level of self-directedness than other streams, both boys and girls are equally self-directed learners in this stream. The study also revealed that commerce and arts stream students have a low level of self-directedness. Hence, an attempt could be taken to enhance the student of arts and commerce students to be self-directed learners.

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Appe

Annexure 1

SELF DIRECTED LEARNING

Dear friends,
I Karishma Patel working on my post-graduate level research which has a focus on the level of self-directedness in learning.
The purpose of this study is to find out about your way towards becoming a self-directed learner.
This response sheet is to try to identify learners' level of self-directedness in learning in higher education. Please read and tick the most appropriate response for each statement indicating the level at which you rate yourself. Please note that your first reaction to the statement is the most accurate response; therefore, do not spend too much time on each question. Your responses will be kept confidential, so please feel free to respond. The "any other" space provided for you to add any other issue about self-directedness in learning you think relevant.
A 'scoring sheet' is included for you to assess the level of your self-directedness in learning.
Areas of Self-Directedness in learning
Response Key: 5 = Always 4 = Often 3 = Sometimes 2 =Seldom; 1 = Never

પ્રિય મિત્રો,
હું કરિશ્મા પટેલ,
મારા અનુસ્નાતક સ્તર પર સંશોધન કામ કરું છું.
આ સંશોધન માં આત્મ-નિર્દેશનના સ્તર પર શિખવા પર ધ્યાન કેન્દ્રીત કરવામાં આવ્યુ છે.
આ અધ્યયનનો હેતુ એ છે કે સ્વ નિર્દેશકે શિક્ષાર્થી બનવાની દિશામાં પોતે જે રીત અપનાવી છે તે વિશે જાણકારી મેળવવાનો છે.
આ પ્રતિક્રિયા પત્રક નો હેતુ ઉચ્ચશિક્ષણના વિધાર્થીઓના ભણવામાં સ્વ - નિર્દેશનતાના સ્તર ને ઓળખવાનો પ્રયત્ન કરવાનો છે.
કૃપા કરીને દરેક વિધાન વાંચો અને યોગ્ય પ્રતિભાવ છે તેના પર નિશાન કરો. જે સ્તર પર તમે પોતાને મૂલ્યાંકિત કરો છો. તમારી પ્રથમ પ્રતિક્રિયા એ જ સૌથી સચોટ પ્રતિસાદ છે માટે દરેક પ્રશ્ન પર વધુ સમય ન ફાળવો.
તમારી પ્રતિક્રિયાઓને ગુપ્ત રાખવામાં આવશે માટે મુક્તપણે પ્રતિક્રિયા આપો.
ભણવામાં તમારી સ્વ નિર્દેશતાના સ્તર નુ મૂલ્યાંકન કરવા માટે સ્કોરીંગ શીટનો સમાવેશ કરેલ છે.
ભણવામાં સ્વ - નિર્દેશનના ક્ષેત્રના ચાવી રુપ પ્રતિસાદ : 5 = હંમેશા 4 = ઘણીવાર 3 = કેટલીકવાર 2 = ભાગ્યે જ 1= ક્યારેય નહી.

* Required

1. Email address *

2. NAME *

3. STANDARD *

4. SCHOOL NAME *

5. GENDER *

Mark only one oval.

- Female
- Male
- Other: _____

6. STREAM

Mark only one oval.

- SCIENCE
- ARTS
- COMMERCE

7. Awareness જાગૃતિ *

Mark only one oval per row.

	5	4	3	2	1
I identify my own learning needs.હું મારી પોતાની શીખવાની જરૂરિયાતોને ઓળખું છું.					
I am able to select the best method for my own learning. હું મારા પોતાના શિક્ષણ માટે શ્રેષ્ઠ પદ્ધતિ પસંદ કરવા માટે સક્ષમ છું.					
I consider teachers as facilitators of learning rather than providing information only. હું શિક્ષકોને ફક્ત માહિતી પ્રદાન કરવાને બદલે શીખવાની સુવિધા આપનાર તરીકે ગણું છું.					
I keep up to date on different learning resources available. હું ઉપલબ્ધ વિવિધ શિક્ષણ સંસાધનો પર અદ્યતન રાખું છું.					
I am responsible for my own learning. હું મારા પોતાના ભણતર માટે જવાબદાર છું.					
I am responsible for identifying my areas of deficit. મારી ઉણપના ક્ષેત્રોને ઓળખવા માટે હું જવાબદાર છું.					
I am able to maintain self-motivation. હું આત્મ-પ્રેરણા જાળવવા માટે સક્ષમ છું.					

I am able to plan and set my learning goals.હું મારા શીખવાના લક્ષ્યોની યોજના બનાવી શકું છું.					
I have a break during long periods of work.મારા કામના લાંબા ગાળા દરમિયાન મારે વિરામ છે.					
I need to keep my learning routine separate from my other commitments. મારે મારા ભણતરના નિયમને મારા અન્ય પ્રતિબદ્ધતાઓથી અલગ રાખવાની જરૂર છે.					
I relate my experience with new information. હું મારો અનુભવ|નવી માહિતી સાથે જોડું છું.					
I feel that I am learning despite not being instructed by a lecturer.મને લાગે છે કે કોઈ લેક્ચરર દ્વારા સૂચના આપવામાં ન આવી હોવા છતાં પણ હું શીખી રહ્યો છું.					

8. Learning Strategies શીખવાની વ્યૂહરચના *

Mark only one oval per row.

	5	4	3	2	1
I participate in group discussions. હું જૂથ ચર્ચા માં ભાગ લઉં છું.					
I find peer coaching effective.મને સહાધ્યાયી સાથે પ્રશિક્ષણ લેવું અસરકારક લાગે છે					
I find 'role play' is a useful method for complex learning.મને પાત્ર અભિનય એ જટિલ શિક્ષણ માટે ઉપયોગી લાગે છે.					
I find inter-active teaching-learning sessions more effective than just listening to lectures. મને ફક્ત પ્રવચનો સાંભળવા કરતાં આંતર-સક્રિય શિક્ષણ-અધ્યાપન સત્રો વધુ અસરકારક લાગે છે.					
I find simulation in teaching-learning useful.મને શિક્ષણ-શીખવાની સિમ્યુલેશન ઉપયોગી લાગે છે.					
I find learning from case studies useful. પરસ્પર અધ્યયન અધ્યાપન શિક્ષણ					

My inner drive directs me towards further development and improvement in my learning. મારી આંતરિક દબાણ મને મારા ભણતરના વધુ વિકાસ અને સુધારણા તરફ દોરે છે.	◯	◯	◯	◯	◯
I regard problems as challenges. હું સમસ્યાઓને પડકારો તરીકે ગણું છું.	◯	◯	◯	◯	◯
I arrange my self-learning routine in such a way that it helps develop a permanent learning culture in my life. હું મારી સ્વ-શીખવાની રીતને એવી રીતે ગોઠવી છું કે તે મારા જીવનમાં કાયમી શિક્ષણ સંસ્કૃતિને વિકસાવવામાં મદદ કરે.	◯	◯	◯	◯	◯
I find concept mapping is an effective method of earning.મને લાગે છે કે સંક્ષેપિકરણ એ કમાણીની અસરકારક પદ્ધતિ છે.	◯	◯	◯	◯	◯
I find modern educational interactive technology enhances my learning process.મને લાગે છે કે આધુનિક શૈક્ષણિક ઇન્ટરેક્ટિવ તકનીક મારી શિક્ષણ પ્રક્રિયાને વધારે છે.	◯	◯	◯	◯	◯
I am able to decide my own learning strategy. હું મારી પોતાની શીખવાની વ્યૂહરચના નક્કી કરવામાં સક્ષમ છું.	◯	◯	◯	◯	◯

9. Learning activities પ્રવૃત્તિઓ શીખવી *

Mark only one oval per row.

	5	4	3	2	1
I rehearse and revise new lessons. હું અભ્યાસ કરું છું અને નવા પાઠો સુધારું છું.					
I identify the important points when reading a chapter or an article. પ્રકરણ અથવા લેખ વાંચતી વખતે હું મહત્વપૂર્ણ મુદ્દાઓને ઓળખું છું.					
I use concept mapping/outlining as a useful method of comprehending a wide range of information. હું વિવિધ માહિતીને સમજવાની ઉપયોગી પદ્ધતિ તરીકે સંક્ષેપિકરણ ઉપયોગ કરું છું.					
I am able to use information technology effectively હું જ્ઞાન ને વ્યવહાર સાથે જોડવામાં સમર્થ છું. My concentration intensifies and I become more attentive when I read a complex study content.હું માહિતી તકનીક અથવા ટેકનોલોજી નો અસરકારક ઉપયોગ કરવા સમર્થ છું					
I keep annotated notes or a summary of all my ideas, reflections and new learning prescribed course objectives. હું સટીક નોંધ રાખું છું મારા બધા વિચારો, પ્રતિબિંબ અને નવા શીખવાના સૂચિત કોર્સના ઉદ્દેશોનો સારાંશ રાખું છું.,					
I am able to relate knowledge with practice. હું જ્ઞાન ને વ્યવહાર સાથે જોડવામાં સમર્થ છું.					
I raise relevant question(s) in teaching-learning sessions. હું અધ્યાપન-અધ્યયન સત્રોમાં સંબંધિત પ્રશ્નો ઉભા કરું છું.					
I am able to analyze and critically reflect on new ideas, information or any learning experiences. હું નવા વિચારો, માહિતી કે અધ્યયન અનુભવોનું વિશ્લેષણ અને વિવેચન કરવા માટે સમર્થ છું					
I keep an open mind to others' point of view. હું બીજા ના દ્રષ્ટિકોણ ને આવકારું છું.					
I prefer to take any break in between any learning task. હું કોઈપણ શિક્ષણ કાર્ય વચ્ચે કોઈ વિરામ લેવાનું પસંદ કરું છું.					

10. Evaluation મૂલ્યાંકન *

Mark only one oval per row.

	5	4	3	2	1
I self-assess before I get feedback from instructors. પ્રશિક્ષકો તરફથી પ્રતિસાદ મળે તે પહેલાં હું સ્વ-આકારણી કરું છું.	◯	◯	◯	◯	◯
I identify the areas for further development in whatever I have accomplished. મેં જે કંઈપણ પ્રાપ્ત કર્યું છે તેનામાં હું વધુ વિકાસ માટેના ક્ષેત્રોને ઓળખું છું.	◯	◯	◯	◯	◯
I am able to monitor my learning progress. હું મારી ભણતરની પ્રગતિનું નિરીક્ષણ કરી શકું છું.	◯	◯	◯	◯	◯
I am able to identify my areas of strength and weakness. હું મારી શક્તિ અને નબળાઇના ક્ષેત્રોને ઓળખવા માટે સક્ષમ છું.	◯	◯	◯	◯	◯
I appreciate when my work can be peer reviewed. જ્યારે મારા કાર્યની જાય સમીક્ષા થાય છે ત્યારે હું પ્રશંસા કરું છું	◯	◯	◯	◯	◯
I find both success and failure inspire me to further learning. મને સફળતા અને નિષ્ફળતા બંને વધુ શીખવા પ્રેરણા આપે છે	◯	◯	◯	◯	◯
I value criticism as the basis of bringing improvement to my learning. હું મારા ભણતરમાં સુધારો લાવવાના આધાર તરીકે ટીકાને મહત્વ આપું છું.	◯	◯	◯	◯	◯
I monitor whether I have accomplished my learning goals. મે મારા ભણતર ના લક્ષ્યોને પૂર્ણ કર્યા છે કે કેમ તેનું નિરીક્ષણ કરું છુ.	◯	◯	◯	◯	◯
I check my portfolio to review my progress. મને જે પણ તક મળે તેનો હું ઉપયોગ કરું છું.	◯	◯	◯	◯	◯
I review and reflect on my learning activities હું મારી શીખવાની પ્રવૃત્તિઓની સમીક્ષા કરું છું અને તેના પર પ્રતિબિંબિત કરું છું.	◯	◯	◯	◯	◯
I find new learning challenging.મને નવું શીખવું પડકારજનક લાગે છે.	◯	◯	◯	◯	◯
I am inspired by others' success.હું અન્યની સફળતાથી પ્રેરિત છું.	◯	◯	◯	◯	◯

11. Interpersonal skills આંતરવૈયક્તિક કુશળતા *

Mark only one oval per row.

	5	4	3	2	1
I intend to learn more about other cultures and languages I am frequently exposed to મારે અન્ય સંસ્કૃતિઓ અને ભાષાઓ વિશે વધુ શીખવાનો ઇરાદો છે જેની હું વારંવાર જાહેરાત કરું છું					
I am able to identify my role within a group. હું જૂથમાં મારી ભૂમિકાને ઓળખવા માટે સક્ષમ છું					
My interaction with others helps me to develop the insight to plan for further learning. અન્ય લોકો સાથેની મારી ક્રિયાપ્રતિક્રિયા મને આગળના ભણતર માટેની યોજનાની આંતરદૃષ્ટિ વિકસાવવામાં મદદ કરે છે					
I make use of any opportunities I come across. હું જે પણ તક આવે તેનો ઉપયોગ કરું છું					
I need to share information with others. મારે અન્ય લોકો સાથે માહિતી વહેંચવાની જરૂર છે.					
I maintain good inter-personal relationships with others. હું અન્ય લોકો સાથે વ્યક્તિગત આંતર - સંબંધો જાળવું છું.					
I find easy to work in collaboration with others. મને અન્ય લોકો સાથે મળીને કામ કરવું સહેલું લાગે છે.					
I am successful in communicating verbally. હું મૌખિક વાતચીત કરવામાં સફળ છું .					
I identify the need for inter-disciplinary links for maintaining social harmony. હું સામાજિક સંવાદિતા જાળવવા માટે આંતર-શિસ્તબદ્ધ કડી ની આવશ્યકતા ને ઓળખું છું.					
I am able to express my ideas effectively in writing. હું મારા વિચારોને લેખિતમાં અસરકારક રીતે વ્યક્ત કરવા માટે સક્ષમ છું.					
I am able to express my views freely. હું મારા મંતવ્યો મુક્તપણે વ્યક્ત કરવા માટે સક્ષમ છું.					
I find it challenging to pursue learning in a culturally diverse milieu. વૈવિધ્યસભર સાંસ્કૃતિક પરિસ્થિતિ માં શિક્ષણ મેળવવું મને પડકારજનક લાગે છે.					

Annexure2

Questionnaire for M.Ed Dessertation

The Maharaja Sayajirao University Baroda

Questions for teachers in the area of self directedness in their learners.

Name of teacher :_____
Qualification:_____
Stream:_____
Subject taught:_____

1. Are students taking responsibility for their learning?
2. Are students able to plan and set the learning goals? Give some name of the activity that they have planed?
3. Do students relate their experience with new knowledge? Give some examples.
4. Do students like interactive teaching-learning? How do they respond in an interactive session?
5. Are interactive sessions done in this pandemic situation while using the technology for teaching learning process?
6. Do students concentrate in learning activities? How can you know that they are concentrating in the activities?
7. Do students plan there learning activities, if yes give some example.
8. Are students excited during the learning activities? Do they ask question? Which type of questions is asked?
9. How do student monitor the learning process?
10. Students expecting their appreciation and criticism, how do they react to that particular situation?
11. How feedback is given to each and every student?
12. Have your students made that portfolio? Have you checked it?
13. Do you give students opportunity to learn on their own? Explain it.
14. Do students correlate the learning of other subject and implement in daily life? Give example.

15. Interpersonal skills are being developed by teaching learning process. Do you agree with the statement?

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