

A Study on Identification of Auditory, Visual, and Kinaesthetic Learning Essentials for Adolescents Studying in Government Schools at Dakshina Kannada District

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A Study on Identification of Auditory, Visual, and Kinaesthetic Learning Essentials for Adolescents Studying in Government Schools at Dakshina Kannada District

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ABSTRACT

The traditional method of teaching approach in Indian schools is basically a threat for flexible learning where students are given importance based on their learning preferences. Students are not encouraged for maximized learning through their different learning style when teachers in classroom use the only chalk-talk method of teaching approach. The main objective of this study is to identify the learning essentials of the adolescents, which helps the teachers to create positive interest among students in learning & classroom behaviour and improve their comprehension in day to day learning. In Indian schools some are auditory learners, some visual and some are kinaesthetic learners, but majority of the students learn better through multi-dimensional teaching approach which includes Audio, Visual and Kinaesthetic teaching approach. But due to the use of the traditional method of teaching in Indian schools the students are unable to perform better in their academics. The family, peer group as well as the school environment is also causing several emotional and psychological problems among these adolescents which is also a cause behind their learning interest. Hereby, we can come to the conclusion that the students are deferent in learning. But there is a severe need to identify the learning essentials of adolescents to explore the new model in classroom teaching to encourage them towards learning and maximize their academic performance. Secondary data method is used and the study is descriptive in nature.

Keywords: Adolescents, Teaching, Learning, Auditory Learning, Visual Learning, Kinaesthetic Learning.

1. INTRODUCTION :

As per the census from 2011, the population of India is 1.21 billion. 315 million of this population is below the age of 20 years [1]. This young population is getting nurtured in the schools, colleges and other educational institutions. Learning is an important need of this young population where mankind gets civilized [2]. The Indian Constitution (Article 45) states that "The state shall strive to provide free education and it is compulsory to all

citizens up to the age of 14." But the thing is that whether the students are encouraged towards the inculcation of knowledge in the learning environment. This young population is really influenced by the modern education system and teachers. Whether classrooms are the places to produce future personalities in society? Are the teacher and student relationship are well maintained for better understanding and sharing knowledge? [3] [4]. Student is well supported mentally and socially in his response towards classroom behaviour. If we think towards

today's education system it gives us an unbelievable truth. One student suicide per hour in India and it has the highest suicide rate in the world. These all due to the collapse of confidence, lack of support, motivation and academic pressure in students [5] [6]. The different studies exploring the benefits of value-added education in preparing students population as well trained and equipped with human values, character, moral integrity, and the knowledge and skills to be good citizens of a particular country [7]. But only such values may not help the pupils to strengthen their academic performances. However, every individual is unique in nature, behaviour and in their perception. Different researches are noted that based on individual's perception capacity they perform in their academics. Every pupil has their own way of understanding the concept of teaching in the classroom. Some individuals understand the concept through a visualized way of approach, some through auditory-based and some pupils through kinesthetic based teaching. Adolescence is an age of the individual to adopt a certain behaviour, skills and develop a mutual relationship with peers and society. In today society the mobile phones, computers and some other electronic gadgets are playing a major role in deciding and controlling adolescent's emotional and social behaviour. So, it's little difficult to understand and control such pupils in the classroom and also it is challenging to influence them towards better involvement in the learning process [8]. So, it's important to understand the effective way of teaching as per the learning essentials of the early adolescence.

2. OBJECTIVES OF THE LITERATURE STUDY :

This study is to explore the various types of learners and methods of teaching in the classroom. The aim is also to review the

Table-1: Important literature reviews on Problems Associated with Adolescent's Development

Sl. no	Author and Publication Year	Title
1	Subrahmanyam, K., Greenfield, P., Kraut, R., & Gross, E. (2001).	The impact of computer use on children's and adolescents' development.
In this modern life, computer or mobile games, home computers, and the Internet have assumed an important place in our daily lives. Use of the computer is also affecting the development of children and adolescents such as cognitive skill and academic development, social development		

literature published or researched related to adolescent's learning demands in classroom teaching. Efforts are also undertaken to ascertain the status of adolescent's perception of the deferent methods of teaching such as auditory, visual and kinaesthetic. The study also investigates the various literature undertaken to know the best method of teaching in the classroom to make the early adolescence to have better comprehension and improve their academic performance.

3. AGE OF ADOLESCENCE :

Approximately a period of eleven years to nineteen years is called as adolescence or teenager. This is one of the important periods of human life span in which an individual gets shifted from childhood to adolescence. This is a period beginning with onset puberty and ending when individuals start paying adult role and responsibilities. This is also an age where an individual reaches sexual maturity [9]. The individual experience several changes in his physical, mental, emotional growth & starts being independent. During this period the individual also gets involved in the society and attracted towards social activities. Peer group is considered as one of the most influencing groups to the adolescence, which play a major role in changing the behaviour of the child. The adolescence is classified into three major categories such as early adolescence, middle and late adolescence. One of the major causes behind several emotional, behavioural and academic problems is a mobile phone. Majority of the adolescents are highly influenced and addicted to these phones and used for maximum time and lose proper sleep. This also influences their academic performance and lost interest in learning [10].

and relationships, and perceptions of reality and excessed violent behaviour [11].		
2	Seo, D. G., Park, Y., Kim, M. K., & Park, J. (2016).	Mobile phone dependency and its impacts on adolescents' social and academic behaviours.
Increased mobile phone dependency among adolescents is increasing depression, which also affects social relationships with friends and outside environment and academic achievement. The mediating roles of attention, depression, and relationships with friends were found causing academic achievement of middle and high school students [12].		
3	Curcio, G., Ferrara, M., & De Gennaro, L. (2006).	Sleep loss, learning capacity and academic performance
The adolescents are chronically sleep deprived or suffer from poor sleep quality or day time sleepiness which is affecting their learning capacity and academic performance. Sleep loss is increasing poor learning in students [13].		

4. ADOLESCENCE :

Approximately eleven years to fourteen years of duration is called as early adolescence. In this period the individual gets shifted from childhood to adolescence. The adolescence period is been divided into three categories such as early adolescence, middle adolescence and late adolescence. Each developmental stage in adolescence has its own difference. If we look into the physical, cognitive, social and emotional development in early adolescence we can have a clear understanding of how early adolescence is challenging and sensitive. The early adolescent period is also identified by different changes in biological and psychological characteristics which are connected with peers, teachers, and family. In the early adolescent age transition to the middle school can be a little difficult, especially adolescents who struggle with the changes in their day today's lives. Middle school teachers can make this transition easy and help early adolescents successfully get adjusted with many changes in their school experience [14]. During early adolescence, the girls and boys become more brightly aware of their gender. They may make adjustments to their behaviour or appearance in order to get appreciated by the external world. There are possibilities of participation in bullying, and feel confused about their own sexual and personal identity [15]. For some individuals, the years of adolescent effects on academic success and be failure leading to the school dropout. Some early adolescents also see their academic performance decline markedly when they enter the secondary schools, along with their interest in going to the

school, and confidence in their learning abilities. Negative responses towards teaching and teachers increase as adolescents experience stress, anxiety, helplessness and self-awareness that disturbs concentration on learning activities. The school dropout rate rises during the adolescent years [16].

5. DEVELOPMENT IN ADOLESCENCE :

Adolescence age has several developments in its duration. Individual start adopting several changes in his physical, psychological and social development, they are as below.

Physical Changes in Puberty: There are several physical changes when an individual enters the early adolescence such as growth in body hairs, oil production in skin and increase perspiration. In Girls – breast and hip development, the onset of menstruation. Among Boys – growth in testicles and penis, wet dreams, changes in voice. Tremendous physical growth such as gain height and weight, greater sexual interest also can be noticed. Regular practice of physical exercise will create a more favourable self-image. Physical exercise is also significantly connected to physical and psychological well-being. Adolescents who participate regularly in physical activity were found by reduced anxiety-depression level and less social misbehaviour [17].

Psychological Development: The problem of poor academic performance at the school level has been a matter of serious concern. The academic achievement has a strong and negative influence on anxiety, stress, depression and guilt, changes in mood states may decrease the academic performance of adolescents [30]. The

reserved nature of adolescents showing higher academic anxiety as they keep themselves aloof from the other members of society. They also try to solve their problems in their own ways and they never share their problems with others which may result in increased academic anxiety [31]. The research explored that the adolescents maltreated early in their life expressed levels of aggression, anxiety or depression, dissociation, posttraumatic stress disorder symptoms, social problems, thought problems, and social withdrawal [32]. Bulimia nervosa, psychosomatic symptoms, drinking, substance use, smoking, bullying and truancy are also the few important psychological problems been noticed in adolescence. The early pubertal timing is associated with increased mental health problems. Parents, teachers and professionals working with adolescents should consider the mental health needs of early maturing adolescents and provide inappropriate support [33].

Cognitive Development: Increased thoughts to be independent with limited awareness about life. Highly interested in present enjoyment with limited thinking about the future. Expanded intellectual interests and become more important, deeper moral thinking are the cognitive development which occurs in this period. Positive activities among early adolescents lead to behavioural improvement, which leads to better expertise and greater valuing, in an important process by adolescence [18]. The cognitive changes influence adolescents to learn effectively and more advanced and complicated subjects in school. They also become more eager to gain information and apply their knowledge to think and make an appropriate decision. These

cognitive changes also reflect over into their emotional lives. Within the school and family [19].

Emotional Development: It is important to understand that the development of emotional sovereignty in adolescence is not a simple task as we think, its accomplishment is little complex and gradual [22]. The deeper worry with a sense of identity and feel awkward about self and their body. Worry about being normal, thinking that parents are not perfect to be with, increased conflict with parents. They try to be independent. Stressed, moodiness and greater interest in privacy are the deferent emotional changes among early adolescence. Some of the studies are highlighting that adolescence boys expressed a higher level of anxiety, stress and depression than adolescence girls. The other hand adolescence girls expressed a higher level of guilt more than adolescence boys [23][24]. A study says that adolescents who developed a greater attachment with parents will have less depression and social anxiety [25].

Behavioural Development: According to a study on adolescence are found more delinquent and problematic behaviour with deviant friends [26]. The other research has also explored the effects of childhood factors were found to be influencing behavioural problems and exposure to stressful life events during adolescence. The adolescence who effected of childhood factors also noted suffering from mental health problems including depression, anxiety disorders, substance use disorder, and to some extent conduct disorder, which is directly or indirectly causing the onset of suicidal behaviours [27].

Table-2: Stages of early adolescent's development (Developed by Wayne Pawlowski)

General-age of high moodiness	Physical development and sexual maturation
Mood swinging in great highs Great depressions also can be seen	Individual reach Puberty: in this stage onset of physical and sexual development can be seen with confusion & Sense of loss of control. Increased fear and anxiety. Experimentation with the body begins
Cognitive development (How adolescents think)	Psycho-social development: Identity

	(personality)
Time of concrete thinking Giving more importance to the present Being unable to plan properly or think about the future	Complex thinking, being Unable to understand the situations. Time to go outside of the family for self-definition
Psycho-social development	Intimacy (Sexual relationships)
Individual begins to be questioned, being not clear of values. Unable to understand Right and wrong Internal control not developed	Individual likes playing with same-sex Identification and reorganizationis received through the membership in the peer group and “best friends” Friends begin changing because of variations in the rate of development
Time to beIndependence	
Individual start giving more importance to friends than family Feeling about lack of privacy begins and increasing to be alone, spend more time with friends.	

Social Development:Most individuals pass through adolescence do experience difficulty. The negative psychological changes which occur during adolescent development result from a problem between the needs of developing adolescents and the opportunities given them by their social environments such as parents, school, and peers. Through this, we also can understand the mismatch developed in the school and home and how it is influencing negative age-related changes in early adolescent’s confidence, motivation and self-perceptions [20]. When adolescent’s attachment with social groups such as family, peers and teachers is insecure, they can also experience an increased risk of anxiety, low self-esteem, aggression etc [21]. Mainly adolescence is a time where they start getting involved in social activities and make more friends, independently taking the decision about their social choices and build a romantic relationship with the opposite sex.

Social Involvement in Adolescent Age:Results from the research suggested the social competence is one of the major causes behind the participation of early adolescence in learning and teaching activities. Student’s IQ, sex, ethnicity, school absence, and family structure, social behaviour mediates almost entirely on social involvement [28]. Adolescents also have a social problem in adjustment. As our society is such that adolescents and their activities are not accepted all the time, they are also sometimes

not considered as important. May they do not want to follow social rules and regulations & they even do not value social life. So in order to develop a healthy attitude towards social life in adolescents, the parents and teachers must understand them from their point of view [29].

Academic Performance in Adolescent Age:Due to the occurrence of physical, psychological and emotional changes among early adolescence and their involvement towards society such as peer group the academic performance may fluctuate during this time. That family climate also has a great impact on the scholastic achievements of early adolescent [34]. School environments, student’s misbehaviour in school and an increase in academic expectations may also increase student’s school-related stress and disturb their academic performance [35][36]. Research noticed that government school students are committing the highest mistakes in classroom learning [37]. Low parental academic achievement and ineffective discipline also associated with child antisocial behaviour, had a direct and negative effect on their academic engagement [38].

6. CLASSROOM TEACHING :

The classroom is one of the important places where an individual is shaped and trained as a personality. But increased student’s misbehaviour has been consistently increasing stress teachers [39]. Even schools and teachers have been failures to put efforts on the

performance of different types of pupils [40]. It is also been noticed that the present academic environment is not effective enough to promote an integrated and holistic personality in adolescents [41]. The school's environment influences the overall development of all the areas of student's behaviour-Patterns [23]. Due to the closed nature of the teachers, the pupils are not able to respond properly to the needed situations. If teachers become more open to programmes of pupil improvement, then the aim of education is fulfilled in bringing academic success [42]. A study has reported that students are often facing emotional problems in the learning environment by the negative approach of the teachers [43]. The learning style of the learner in the classroom is much more important than the teaching style of the teacher in the classroom [44]. To achieve this goal there is a need to adopt attractive teaching with good qualifications and teaching eligibility among the educational professionals [45]. Implementation

of newer strategies, focusing on standardized study patterns and creating the flexible school and home environment for study, will help the students to achieve better scholastic performances. The advanced skill training for adolescents which includes three different models such as special skills, career guidance and life skill training is also one of the effective method of making adolescents responsible and have skill full learning experience in the classroom. The special skill training may include swimming, cycling, computer proficiency, cooking, banking, domestic works, self-defence, cycling etc. The career guidance may include career options, courses available, institutions, scholarships, infrastructure, and bank loan etc. the life skill training may include negotiation skills, employability skills, leadership, presentation skills, time management, organising skills, fund raising and management, conflict resolution, stress management etc [46].

Table-3: Strategy to adopt Effective Teaching [47]

Body Language	Non-verbal communication through body language can also transfer the people's attitudes and feelings towards others. The teaching in classroom with non-verbal communication using Voice tone, facial expression, gesture, and body language can be even more effective than verbal messages.
Touch	Touch is one senses of our body. The first experience of child's relationships with others will starts from the touch. Touch is also one of the effective methods to transfer the messages from one individual to another.
Objects	Clothing and appearance of an individual often used as a basis for initial judgments about people. Even an individual communicate with others through his or her appearance not only with verbal communication.
Signs and Password	The password is nothing other than a group of signs and symbols that an individual can express through his body language. This can be made in a manner that is meaningful to someone and he understands it in a better way.
Phonetics	People can identify the different emotions from each other and have a judgment about people's personality and social characters using phonetics. The sound of every human being is unique and is a combination of the qualities that are expressed through communication.

Table-4: List of Important Literature Determining the Need of Expertized Teaching in the Classroom

Sl. no	Author and Publication Year	Title
1	Mariadoss Anandaraj, & Munusamy Balamurugan. (2018).	Constructive Approach: Cooperative Learning in Mathematics.
It is important to create a flexible learning environment in the classroom for all students. It is a responsibility of the teacher to establish child-centred learning in which students involve in interaction,		

active learning, and constructive way of learning, problem-solving method and reflective process. So that students cannot feel discouraged or overstressed while learning in the classroom [48].		
2	Anju Verma. (2016).	A Study of Academic Achievement Among High School Students in Relation to Their Study Habits
There is a relationship between study habits and on academic achievement of students. It is clear that the study habit of students has an impact on academic achievement. Various factors such as the method of study, family background, and the environment in the school will play a major roll on learning habit of the pupils [49].		
3	Jennings, P. A., & Greenberg, M. T. (2009).	The prosocial classroom: Teacher social and emotional competence in relation to student and classroom outcomes.
Teacher's social and emotional well-being is important in the development and maintenance of supportive and constructive teacher-student relationships at the school. Effective classroom management and successful implementation of the teaching program will influence the pupils to have better learning experience [50].		
4	Benzer, A. (2012).	Teacher's opinions About the Use of Body Language.
Body language in classroom teaching is an important and effective method to influence the students in learning. Not using body language in classroom teaching is one of the barriers in classroom effective teaching and bringing the best academic achievement by the students [51].		
5	Bru, E., Stephens, P., & Torsheim, T. (2002).	Student's perceptions of class management and reports of their own misbehaviour.
Individual students with misbehaviours are more closely linked to classroom management. A best emotional support and motivation from teachers towards students with behaviour problems showed the strongest positive associations with student behaviour [52].		

7. TRADITIONAL METHOD OF TEACHING :

A traditional teaching method, "chalk and talk," may not influence the students to develop their ability to think logically, understand better and improve their academic performance. But most of the educational institutions are following just chalk and talk teaching methods. Traditional teaching methods are unsatisfactory for the students and they not only learn less but also suffer from motivational problems and enjoy school experience less than their peers. The variations in deferent learning styles of the students have been linked to deferent genders. Most of the teachers even do not know the learning ability of their students. Most of the teachers at the secondary school level use the Grammar-Translation Method [53] [54]. The study noted that most of the teachers are not well equipped and adequately trained. If any improvement or reform is to be affected in

teaching, the first preference is to improve the quality of the teachers. It is also important to make the teacher aware of the importance of learner-oriented teaching activities in the classroom [54]. It is foremost important for teachers to focus their attention on students preferred learning styles. Since methods of teaching adopted by teachers often reflect with students classroom learning [55]. Cooperative learning with a think-pair-share teaching method was found changed student's behaviour and question asking in the classroom and improve their performance in the course by active participation in classroom learning. These effective methods of teaching used by teachers in the classroom teaching help students to walk on the right path to becoming effective problem solvers, which will enhance their motivation to study and engagement in learning, and the methods are effective [56]. Teacher's initiative, creativity, knowledge on pupil's background, pedagogical and management skills for making teaching and learning effectively is important.

Teacher’s ability to identify effective strategies during classroom teaching is a valuable skill for strategizing effective teaching. But some of the studies highlighting that the teachers are unable to manage pupils and engage them in the lesson activities [57]. If the teacher understands the learning style of each student. This would help teachers in preparing a learning model that helps the teacher and will improve student’s learning outcomes [58].

8. LEARNING :

Definition by Crow and Crow (1973), “Learning is the acquisition of habits, knowledge and attitudes. It involves new ways of doing things, and it operates in an individual’s attempt to overcome obstacles or to adjust to new situations. It represents progressive changes in behaviour, it enables him to satisfy interests to attain goals”.

Learning is a process of gathering or receiving information through sensory organs from the external world. Individuals often use the natural way of the learning process when they need to learn something [59]. Learning normally implies a fairly permanent change in a person’s

behavioural performance based on his perception [60]. As per research, the females are more comfortable in learning through visual and reading-writing learning style [61].

9. CLASSROOM LEARNING :

An individual sit in the classroom and have strengthened his or her knowledge through the process of teaching on the specified and standardized concept is called classroom learning. There is a slight difference between learning and classroom learning. Teaching and learning process should be mutually complementary between where both the teacher and students can have benefits of it. The taught gain as a result of the diversity of learning experiences of students [62]. Due to the incidence of poor study habits among adolescence and social factors such as family problems, peers influence and school pressure were increased in low academic achievers [63]. Daily study pattern, personal distractions, education status of parents, and negative attitude towards specific subject were found to be factors affecting scholastic improvement [64].

Table-5: Factors Affecting Adolescent’s Learning Pattern and Classroom Behaviour [65]

ADOLESCENCE	
Attention seeking	Lack of goal or life meaning
Challenging authority	Lack of interest in learning, subject or topic
Desire to 'share' with classmates	Lack of motivation towards school work
Difficulty in adapting secondary school life	Lack of responsibility
Difficulty in catching up with the syllabus	Lack of self-confidence
Dislike of lesson	Lack of self-control
Dislike of the teacher	Laziness Perception of having no bad consequence following the misbehaviour or time management
Emotional disturbance	Rebelliousness
Feeling great	Recognition seeking Self-centeredness
Forgetfulness	Self-image construction
Fun and pleasure seeking	Special educational needs
Habit	Tiredness or Insufficient sleep
Impatience	Unclear behavioural norms and values
Irritability / bad temper	Without a second thought
Lack of ability	
Lack of emotional management	
FAMILY	PEERS
Family conflict	Other classmates stirred up troubles
Lack of parental demandingness (strictness &	Peer influences

supervision) Negative parent's values & behaviour Parents arranged too many extra curriculum activities Socio-economic status	The poor relationship among classmates
SCHOOL	Boring lesson Lack of clear classroom rule Poor teacher-student relationship Teacher factors Unattractive learning content or teaching method Unchallenging

There is a difference in the student's learning styles. If teachers understand the deferent learning style of students it will also help the teachers to adopt teaching method according to the learning style of students and design classroom teaching activities according to the preferences of their student. The principals and administrators of the educational institutions can establish the system which helps to maximize the learning & designing effective teaching methods and taking measures for improvement of classroom environment [61]. Cooperative learning and the natural way of learning that happens when students join as groups in the classrooms to do the tasks by the helping, sharing the ideas with each other. Students also will improve their interpersonal and intrapersonal communication skills. When there is group learning, all students of the group get

the opportunities to interact with each other regarding the learning tasks and experience and sharing knowledge. When students learn cooperatively, they learn to help and receive help from each other. Listen to others views and ideas and gather all information and have a better understanding of the concept. So cooperative or experiential teaching method in the classroom is one of the effective methods to influence the students to have maximized knowledge [48]. But in most of the educational institution, the students are not really encouraged to the learning and not given importance to their learning style. As per a study, the female students are not coming regularly to schools due to unsystematic teaching in the classroom [37].

Table-6: Important reviews on Classroom Learning

Sl. no	Author and Publication Year	Title
1	Papini, D. R., Rogman, L. A., & Anderson, J. (1991).	Early-adolescent perceptions of attachment to mother and father: A test of the emotional-distancing and buffering hypotheses.
There are no spirits than motivation to influence an individual towards stepping forward to achieve his or her goal. Teacher's responsibility in encouraging students towards learning and experience best classroom learning is important in maximizing student's academic performance [25].		
2	Gururaj Ganapati Gouda, & Laveena D'Mello. (2019).	Introducing "Cap Concept" in a Class Room Learning for the Students to Achieve Success.
Motivation is an important aspect of the teaching and learning process. If the student is motivated towards learning he will bring positive improvements in his academic performance as well as classroom behaviour [66].		
3	Ravi Babu, M. (2015).	The Influence of Learning Styles and Study Habits on the Academic Performance of Secondary School Students
In order to improve student's academic achievement and influence them towards active involvement in classroom learning, the use of charts, pictures, maps, photographs, diagrams etc. should be		

encouraged for a better visual experience in classroom teaching [55].			
4	Mehraj &PunitaGovil.(2014)	Ahmad Bhat,	Understanding Learning Styles of Secondary School Students in Relation to Certain Variables
Majority of the students are accommodator and assimilator as their most preferred learning styles. The learning styles affect academic performance and active participation in classroom learning of students [67].			

10. LEARNING DEMANDS OF EARLY ADOLESCENTS :

Each individual is unique in reading, writing, comprehension and logical reasoning in the classroom learning. Based on intellectual capacity the individual in the classroom will pursue learning. Normally classrooms are not specified for any particular category of individuals, it includes all the types of students who may or may not good in the learning process. Ways are influenced by age, experience, physiology, culture, and many other factors. Each individual has a specific style of learning. It is quite challenging to identify an individual who learns through all three learning styles equally. Those individuals who learn from multiple approaches are called multimodal

learners [55]. The learning styles evenmore important than intelligence in affecting classroom learning. Theidentification of these styles is important and it may helpthe teacher to optimize the match between teaching and type of student’s learning [68].

(1) Classification of Learners:

The learners are classified into the major three deferent categories based on the cognitive capacity of the individuals. The learning condition is measured and they are put into the deferent group of learners. This classification will help us to understand the individuals learning condition and their capacity in the comprehension of subject thought in the classroom.

Table-7: Five types of Learning Styles among Students(Reid -1995) [69]

1	Visual Learning	Individual learns better from seeing words in books, on the chalkboard and in workbooks. Individual also can remember and understand information and instructions very well when he or she looks into them rather than hearing.
2	Aural Learning	Individual learns from hearing words spoken, oral explanations and audio presentation. The individual with the auditory learning style remembers information by reading aloud or hearing someone’s speech.
3	Read/Write Learning	Some Individuals learns better when he or she reads the information and then practices it by writing. It helps the individual to learn the concept effectively.
4	Kinaesthetic Learning	Some individuals learn better by experience, by being involved physically in classroom learning and teaching practice. Thesetypes of learnersremember information well when actively participating in activities based teaching.
5	Multimodal Learning	Some students feel insecure with only one method of learning. They prefermulti-methods of learning for a better understanding of the concept which includes all the above methods of learning

Being aware of ones learning style helps the teachers to motivate and enhance the student’s academic performance. It helps them to improve their skill and abilities and be focused on the learning process. The students engage

themselves in different activities and have experiential knowledge based on their learning style.They also differ in a way that they learn in three methods which are being Visual learners, auditory learners and sometimes they learn most

through practices such as kinaesthetic learners [70].

a. Auditory Learning:

Auditory learning is a method of learning through hearing. Receiving information through the auditory organs. Some of the individuals will learn effectively with auditory style [45]. Research indicates that the students are unable to perform better in their studies because of the uninterested speech, and active and positive voice in classroom teaching. The study also found that the majority of the male students are unable to perform better the reason may be because the students lack foundation, unqualified teachers or due to disinteresting in subject [37]. A study also explored female high school students are significantly more interested in learning through the auditory method of teaching [61]. Herby we can understand individuals learn effectively through hearing. If the teachers focus on using sound aids or effective taking in classroom teaching process may influence students to have maximized the understanding level of concept.

b. Visual Learners:

Students are suffering from the deleterious effects of mismatch between learning style and teaching method. Law schools in American have improved their first-year curriculum by the use of a greater variety of teaching methods on the bases of the diversity of learning styles among students. The use of original art can influence the students to have greater improvement in their academic performance [71]. One of the studies provides evidence that children with a learning disability tend to utilise their visual modality for effective learning [72]. Even as per the teacher's view that the Audio & Visual Education is useful in daily teaching in classroom instruction. They also stated that the video lessons are understandable and students are very responsive in the visualized teaching-learning process. Teaching through the video approach at the primary level is an effective method to help the students for better motivation. A study also noted that the video lessons thought in the class will help us to reduce the dropout rate to a considerable extent [73]. The body language, particularly gesture, facial expression and gaze

behaviour, among teachers, are the effective way for the better transaction of knowledge in the classroom teaching. Some of the deferent activities that bring the visual and auditory methods together through video, drama and role-play are passed with the purpose of stimulating student's creativity in expressing their interest to maximize performance [74]. The visualized teaching also includes overt behaviours such as facial expressions, eye contact, touching and tone of voice. The most effective understanding occurs when verbal and nonverbal messages are put together in the transaction of information [75].

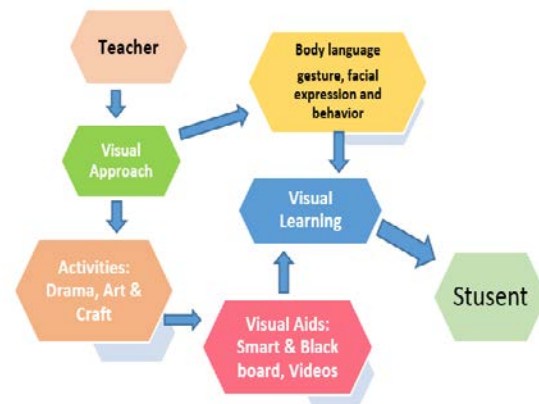


Fig.1: Visual Approach in Classroom Teaching [76]

c. Kinaesthetic Learners:

Kinaesthetic learning is a learning style in which better improvement in learning takes place through carrying out physical activities by the students, rather than listening to a lecture or watching demonstrations. Some of the students learn better through experiences by involving in activities or learning by doing. When teachers teach in the classroom through a kinaesthetic approach such as doing an active learning exercise, using practice methods of teaching students will get actively engaged with the teaching and learning process [53]. This may be through conducting games, activities like drawing, dancing, screenplay, brainstorming, panting, using labs, using equipment etc. this can be exploited as effective and motivational teaching method creating positive environments were students have multiple ways of learning experience [77]. Kinaesthetic learning style is more effective than visual and auditory learning

styles for maximizing academic performance. A good improvement also can be seen in academic achievement of the students through kinaesthetic learning [78]. Students also can be encouraged through arrangements for group discussions, lectures by eminent persons and teachers, enough books in the library, writing and quiz competitions and encouraging them to participate in teaching activities in the school [61].

11. LEARNING THROUGH MULTI-SENSORY ORGANS OR 360 DEGREE OF APPROACH :

The methods used in classroom teaching such as workshop is specially designed to impart a particular skill and involves all or some of the techniques such as class discussions, brainstorming, demonstration and guided practice, role plays, audio and visual activities such as arts, music, theatre, dance, educational games and simulations, situational analysis and case studies, storytelling, debates, decision mapping or problem trees are the best methods to facilitate the active involvement of the students in teaching and learning process. When teaching facilitates the different learning style of the students in the classroom by through multi-dimensional approach such as auditory, visual and kinaesthetic approaches will help the students to have the input of information through multi-sensory organs [79].

The children learn through multiple approaches such as auditory, visual and kinaesthetic. They learn by hearing, by seeing and by doing. The

audio-visual instructions will be received by the ears and eyes, the kinaesthetic way of learning by the experience of touch, smell and taste.

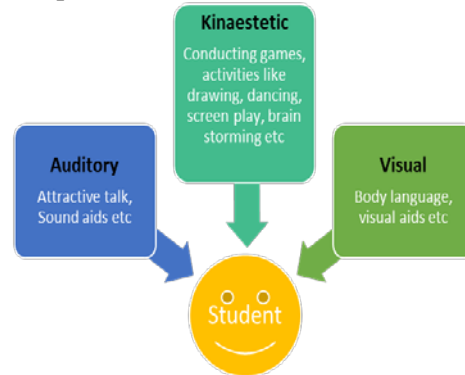


Fig. 2: Learning through Multi-Sensory Organs [80]

For example, teacher hold an apple in hand and show it to the students and say “it is apple” this audio message reaches the students through their auditory organs, when she shows the apple the picture of the apple will be received by the students through their eyes and when teacher give the apple to the students to touch, smell and eat the students get multiple ways of information about apple through multi-sensory organs. This method of teaching will maximize the academic performance of the students than teaching through traditional method [73]. Students should be provided with enough opportunities to learn according to their learning interests and style at the school, then only the learning demands of the students will be fulfilled and maximized their academic performance [55].

Table-8: Important reviews on Learning through Multi-Sensory Organs

Sl. no	Author and Publication Year	Title
1	Anjali Puri.(2017).	Creativity and Learning Styles of High School Students
Visual, Auditory, Kinaesthetic way learning styles are significantly connected to the creativity of high school students. Therefore student’s learning style plays a pivotal role in encouraging pupils towards active learning. This also can unfold creative potential and learn things more efficiently [81].		
2	Dhemba Ishmael.(2015).	The Use of Auditory, Tactual, Olfactory and Kinaesthetic Senses in Developing Orientation and Mobility (O & M) Skills to Learners with Congenital Blindness (CB)
Children with Cognitive blindness problems depends on the multisensory approach in developing learning skills. The multisensory approach in teaching children with CB problem is an effective teaching method [82].		
3	Jewitt, C., Kress, G., Ogborn, J., &Tsatsarelis, C. (2000).	Teaching and learning: Beyond language.

Learning is a multimodal process which is not limited for the only a chalk-talk method of teaching. Multi-dimensional teaching is one of the effective arias in classroom teaching in encouraging and maximizing the academic performance of the pupils. Its responsibility of teachers to adopt this model in developing their effective classroom approach [83].		
4	Baldwin, P., & Fleming, K. (2003).	Teaching literacy through drama: Creative approaches.
An individual can be effectively influenced by learning through drama. Its multisensory nature provides flexible structures to facilitate the learners to have multi-dimensional experience of learning. The mind, body and emotions are given equal opportunities to connect and function together in which children can have both experiences and learning [84].		

12. BENEFITS OF LEARNING THROUGH MULTI SENSORY ORGANS :

Different teaching methods including auditory, visual and kinaesthetic approaches focussing on multi-sensory organs of learners make the learning more interesting and motivate the students to have maximized understanding of the concept. These type of teaching methods can also increase the student’s participation in classroom learning. This will motivate the students in self-learning, independent thinking the arousing curiosity amongst them [85]. When the approaches in the classroom are flexible based on the deferent learning style of the students it enhances the cooperative learning among them and contributes towards raising the achievement of students [31]. There are multi-dimensional methods of both teaching and learning process. As per a research, we remember 20% of what we read, 30% of what we hear, 40% Of what we see, 50% of what we say, 60% of what we do and 90% we remember from what we see, hear, say and do. So hereby we can understand there are deferent types of learners such as visual learners, auditory learners, and kinaesthetic learners if we focus on integrated teaching or 360 degrees of approach, we can definitely make the students occupy maximum understanding of the subject. But most of our educational institutions are not

looking into the learning demands of students just they are following chalk-talk method (traditional method) of teaching [86]. An audio-visual method of instruction or teaching will improve the manipulative and observational skills among the learners and the better use of nonverbal communication in classroom teaching can improve the classroom transaction [73]. The approach also helps for maintaining discipline in the classroom, making students attentive, creating interest of students in the classroom transaction, improving classroom interaction and classroom environment [87]. The individualised and interactive teaching method in the classroom may also enhance the effective area of learning. This method helps not only in improving the academic performance of students but also in developing attitudes and values of the students that will help them develop a more holistic interest in their learning [88]. The multi-sensory instructional methods in classroom teaching develop motivation, sensation, increased attention, better perception, Imagery, conceptualization and memory among students. Student’s participation in learning and academic outcome increases from low-level sensory capacity (chalk-talk teaching method) to high-level sensory capacity (Multi-sensory approach) [89] [90] [91] [92].

Table-9: Memory Based on Learning Style [86]

We remember	20%	of what we read
We remember	30%	of what we hear
We remember	40%	of what we see
We remember	50%	of what we say
We remember	60%	of what we do
We remember	90%	of what we see, hear, say and do

13. FINDINGS :

Based on the review of available studies we can understand the teaching approach which includes auditory, visual and kinaesthetic methods will enhance the learning interest of the students as well as a maximized understanding of the subject. If we look into the teaching and learning status in Indian schools, we can find that the need for multi-sensory or 360 degrees of teaching approach.

(1) Teaching in Indian Schools:

- a. Most of the Indian schools are following traditional methods of teaching.
- b. Most of the teachers in Indian schools are following the chalk-talk teaching method.
- c. Most of the Indian schools are not adopting teaching methods based on student's learning style.
- d. Most of the students studying in Indian schools are not encouraged to the active involvement in teaching and learning process.
- e. Some of the schools in India are using an audio and visual method of teaching for their students where students are better in their academics.

(2) Learning in Indian Schools:

- a. Majority of the students in Indian schools are stressed because of academic pressure by teachers and parents for better academic performance.
- b. Some of the adolescents are suffering from different psychological disorders related to their academic pressure.
- c. Every student is unique in learning style and the majority of the students learn better through a visual and kinaesthetic approach.
- d. Student's perception and involvement in classroom learning depend on teaching approaches of teachers.

13. SUGGESTIONS :

Based on the findings of the review study the below suggestions are given for further understanding about the different areas connected to the present study. The suggestions are indicating the further researches on the learning style of different age group, gender as well as based on geographical influence. So that the parents, teachers as well as educational

institutions may have a better understanding of their children's learning ability and approach them using specified teaching methods.

- (a) There is a severe need for understanding the different types of learning style or demands of students is studying in Indian schools.
- (b) There is severe need of identifying different methods of teaching approaches to encourage the students in classroom learning.
- (c) There is a severe need of categorizing the students based on the auditory, visual and kinaesthetic method of learning.
- (d) New research is required on exploring teaching model to enhance the learning interest of the students.

14. CONCLUSION :

Hereby we can come to a conclusion that the students are different in learning, some are auditory learners, some visual and some are kinaesthetic learners. But the majority of Indian students learn better through the visualized method of teaching. But due to the use of a traditional method of teaching in Indian schools the students are unable to perform better in their academics. The family, peer group as well as the school environment is causing several emotional and psychological problems among these adolescents. To encourage and influence the early adolescent students studying in Indian high schools, it is recommended to use multi-sensory or 360 degree of approach in classroom teaching which even maximizes the student's perception and their academic performance.

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