

Awareness on Learning Styles among College Students

Amrithaashri S, Vishnu Priya V*, Gayathri R

Department of Biochemistry, Saveetha Dental College and Hospitals, Saveetha Institute of Medical and Technical Sciences (SIMATS), Saveetha University, Chennai, India

ABSTRACT

The individual's learning style determines how to store, internalize and memorize new knowledge. These styles help students learn more easily, remember information longer, think more positively about school and learning subjects, achieve academic goals more quickly and use information effectively. Research suggests that a host of affective, cognitive, and perceptual variables are at work when individuals go about the task of second or foreign language learning. Among these variables are learning styles that are habitual ways of perceiving, processing, and storing information. The aim of this study was to know the different learning styles and to create awareness on learning styles among college students. Self-structured questionnaire was prepared and distributed to 105 college students. The participants were explained about the purpose of the study in detail. The questions were carefully studied, and the corresponding answers were marked by the participants. The data was collected and statistically analysed. 69.3% responded that they were aware of different learning styles, 52.4% preferred learning through hearing, 28.2% preferred learning through reading books, 15.2% preferred learning through visuals 45.6% preferred a book with lots of words for reading, 42.7% preferred books with lots of pictures, 11.7% preferred books with more questions and quiz. There are a variety of learning styles and we can help the students by understanding their own way of learning style and make them do their best.

Key words: Online survey, Learning styles, Survey planet, Academic performance

HOW TO CITE THIS ARTICLE: Amrithaashri S, Vishnu Priya V, Gayathri R, Awareness on Learning Styles Among College Students, J Res Med Dent Sci, 2021, 9 (1): 57-65.

Corresponding author: Vishnu Priya V

e-mail ✉: vishnupriya@saveetha.com

Received: 23/09/2020

Accepted: 09/12/2020

INTRODUCTION

Many people recognize that each person prefers different learning styles and techniques. Learning styles group common ways that people learn. Everyone has a mix of learning styles. Some people may find that they have a dominant style of learning, with far less use of the other styles. Others may find that they use different styles in different circumstances. There is no right mix. Nor are your styles fixed. You can develop ability in less dominant styles, as well as further develop styles that you already use well. Learning styles are the characteristics, strengths and preferences of how people receive and process information.

Educational research and development efforts are mostly directed in the improvement of teaching while neglecting students' learning

styles. Besides being marginally effective, the exclusive focus on improving teaching methods may lead to the reinforcement of inappropriate and nontransferable learning strategies. As such, this study is being undertaken to determine if differences and varies in personality style exist among health profession students. This retrospective-descriptive study tested the null hypothesis there is no difference in personality traits in between osteopathic medicine, pharmacy, physical therapy, physician assistant, dental medicine, optometry and occupational [1]. Students' preference for the concrete sequential dimension increased significantly as they progressed toward graduation, suggesting that the learning environment or surroundings of the schools and colleges served to reinforce the students' initial predisposition toward the concrete sequential orientation [2]. There were difference and variations in staff perception of the relationship with extrovert and introvert students. Students showed minor differences and variations in their perception of staff relationships with respect to other personality factors [3].

The females are significantly more intuitive and have delicate feelings than males. In general, this sample of students, who graduated in 1979, 1980, 1981, and 1982, was quite similar in their personality to samples of the students of the early 1960s [4]. Research suggests that a host of affective, cognitive and perceptual variables are at work when individuals go about the task of second or foreign language learning. Among these variables are learning styles that are habitual ways of perceiving, processing, and storing information. The context-specific research was conducted into the relationship between learning styles and background variables due to the inconsistencies existing in the field. Exploring the pattern of graduate learners' perceptual learning style preferences and its possible relationship with their gender, age, discipline, and self-rated proficiency level [5].

One of the most serious and specific challenges that educators face today is improving the level of student satisfaction with the curriculum and learning environment. It is good to determine whether a particular teaching method might enhance student satisfaction with the learning process. New Zealand educator Neil Fleming developed the term called VARK (an acronym for Visual, Aural, Read/Write, and Kinesthetic) in 1998. Most students prefer their own way among these four ways of learning at a higher percentage and kinesthetic learning at a lower percentage than the sample population measured in the VARK website. Gender differences and Inter-class differences varied and were not significant. Educators should be aware of these differences to explore opportunities for making the educational experience more enjoyable and productive [6]. Learning styles are the characteristics and interests of how people obtain and process knowledge. An individual's learning style determines how to store, internalize, and memorize new and advanced knowledge. Such styles help students to learn more effectively, to recall more details, to think more positively about school and learning topics, to quickly achieve academic goals, and to make better use of information. If students consider the difference in their own learning styles and the instructor's teaching style, they may dislike the learning environment, lose interest in the learning environment. In the subject, contribute

to poor results in exams and assessments, fail in their classes, and eventually lose interest in the subject [7].

Previous studies on cancer biology, nano materials, herbal products [8-13] have motivated me to pursue this current research which is useful to our community. The aim of this study was to know the different learning styles and to create awareness on learning styles among college students.

MATERIALS AND METHODS

A cross sectional survey was initiated from a randomly chosen population of 105 college students. The survey was conducted online using survey planet online survey tool. The survey questionnaire comprised 15 questions administered to the participants through an online survey planet link. The data collected from these 105 college students were statistically analysed to generate appropriate results. The output variables were represented as pie charts.

RESULT AND DISCUSSION

The responses were collected, and the data was statistically analysed. Most of the college students who participated in the survey were aware of different types of learning styles and they also have their own type of learning style. The study was conducted among 105 college students. When they were asked whether they were aware of different learning styles, 69.3% responded that they were aware of different learning styles. 30.7% responded that they were not aware of different learning styles (Figure 1). 52.4% preferred learning through hearing, 28.2% prefer learning through reading books, 15.2% prefer visual type of learning (Figure 2). 45.6% preferred a book with lots of words for reading, 42.7% preferred books with lots of pictures, 11.7% preferred books with more questions and quiz (Figure 3). 55% preferred leaving the words which they could not spell, 45% preferred trying to read the word (Figure 4).

60.2% preferred to do group study for the test, 25.2% preferred to read the books and notes, 14.6% preferred e-learning (Figure 5). 65.7% preferred group study to learn something new, 34.3% preferred self-learning (Figure 6). 50.5% responded that noise is the most distracting



Figure 1: The pie chart represents the percentage distribution of responses about awareness on different learning styles, 69.3% (dark blue) responded that they are aware of different learning styles. 30.7% (blue) responded that they are not aware of different learning styles. Majority (dark blue) of them are aware of different learning styles.

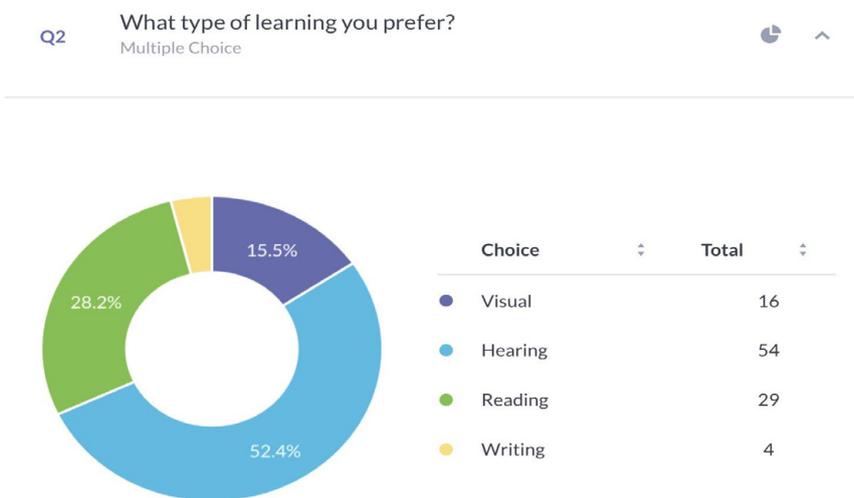


Figure 2: The pie chart represents the percentage distribution of responses about awareness on learning styles preferred by students , 52.4%(blue) prefer hearing type of learning, 28.2%(green) prefer reading type of learning, 15.2%(dark blue) prefer visual type of learning. Majority (blue) of them prefer hearing type of learning.

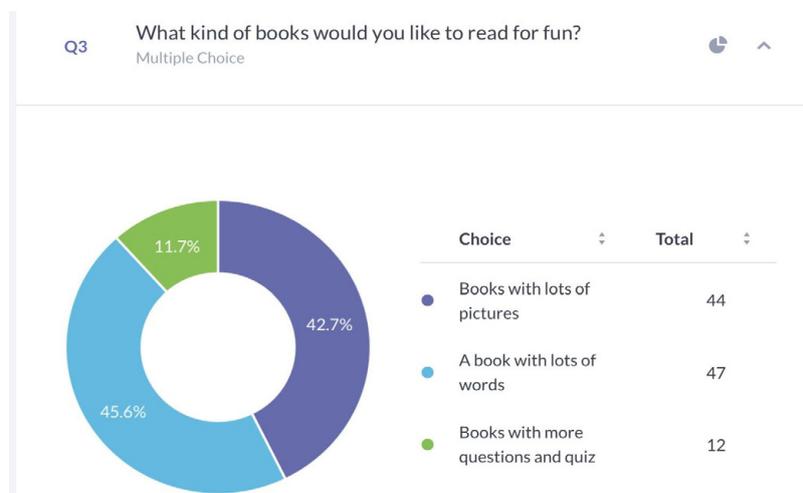


Figure 3: The pie chart represents the percentage distribution of responses about awareness on the kind of books they prefer to read for fun, 45.6%(blue) prefer a book with lots of words for reading, 42.7% (dark blue) prefer books with lots of pictures, 11.7%(green) prefer books with more questions and quiz. Majority (blue) of them prefer a book with lots of words.

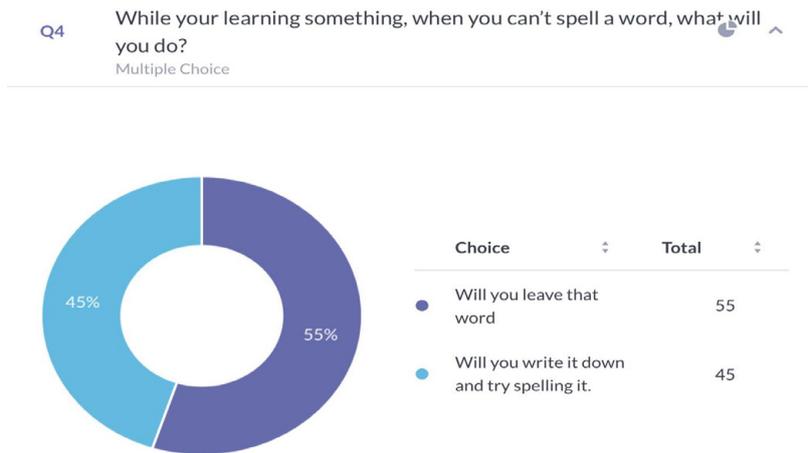


Figure 4: The pie chart represents the percentage distribution of responses about awareness on student's preference while spelling the word, 55% (dark blue) prefer leaving the word which they couldn't spell, 45%(blue) prefer trying to read the word. Majority (dark blue) of them preferred leaving the word if they could not spell.

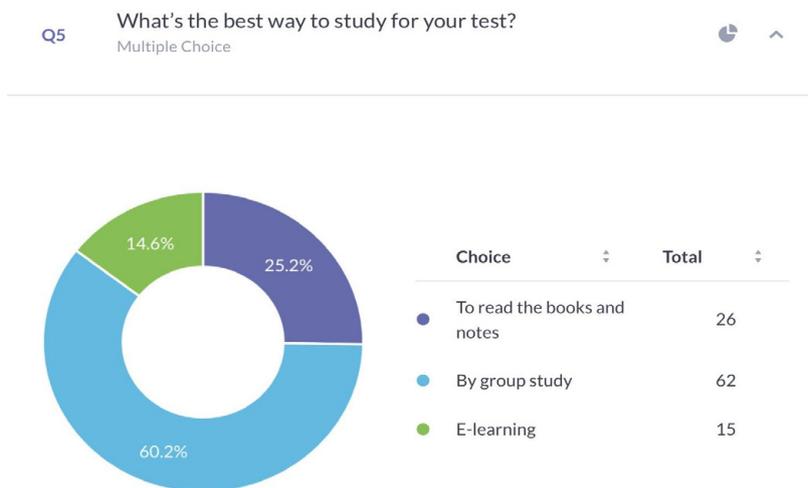


Figure 5: The pie chart represents the percentage distribution of responses about awareness on best way of learning,60.2%(blue) prefer to do group study in account of the best way of learning for test, 25.2%(dark blue) prefer to read the books and notes, 14.6%(green) for e-learning. Majority(blue) of them preferred group study.

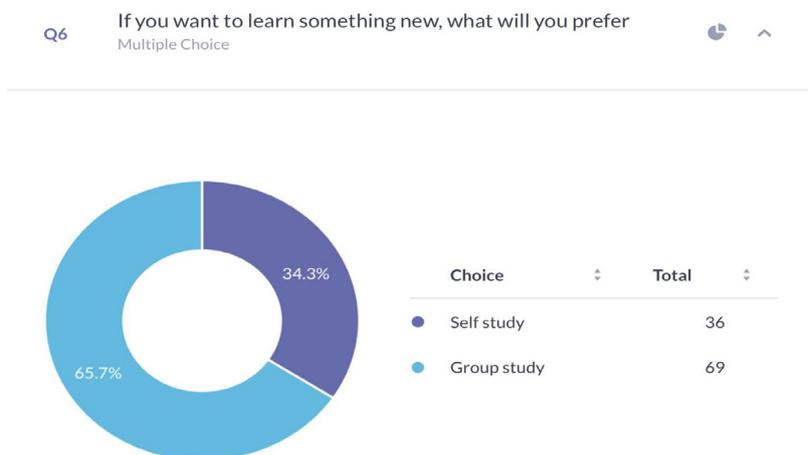


Figure 6: The pie chart represents the percentage distribution of responses about awareness on preference of learning something new, 65.7%(blue) preferred group study to learn something new, 34.3%(dark blue) preferred self-learning. Majority (blue) of them preferred group study.

thing when they tried to learn, 37.1% responded that people around them were more distracting, 12.4% responded that uncomfortable posture was distracting (Figure 7). 46.6% preferred dancing to relax after studying, 27.2% preferred listening to music, 26.2% preferred doing exercise (Figure 8). 50.5% responded that frequent tests were the best way to make them remember what they learn, 49.5% preferred revision (Figure 9). 59% have not tried to follow the learning styles of others, 41% tried to follow others (Figure 10).

58.4% preferred creating songs or mnemonics to remember, 41.6% do not prefer creating songs or mnemonics to remember (Figure 11). 54.9% preferred theory learning, 45.1% preferred practical learning (Figure 12). 61.2% preferred to sit and learn, 33% preferred to lay and learn,

5.8% preferred to walk and learn (Figure 13). 58% preferred to use their finger as a pointer while learning, 41.6% does not prefer to use their finger as a pointer for learning (Figure 14). 54.8% responded that when they recollect something, they are likely to view as words in their mind, 45.2% responded that they are likely to view as pictures in their mind (Figure 15).

Styles of learning are the features, weaknesses, and expectations of how people obtain and process knowledge. The thought style of an adult defines how to organize, internalize, and memorize new ideas. These models allow students to learn more easily, to retain information faster, to think more deeply about school and learning subjects, to achieve academic expectations more quickly, and to attain a higher level of learning. A person can learn nothing of value if they learn

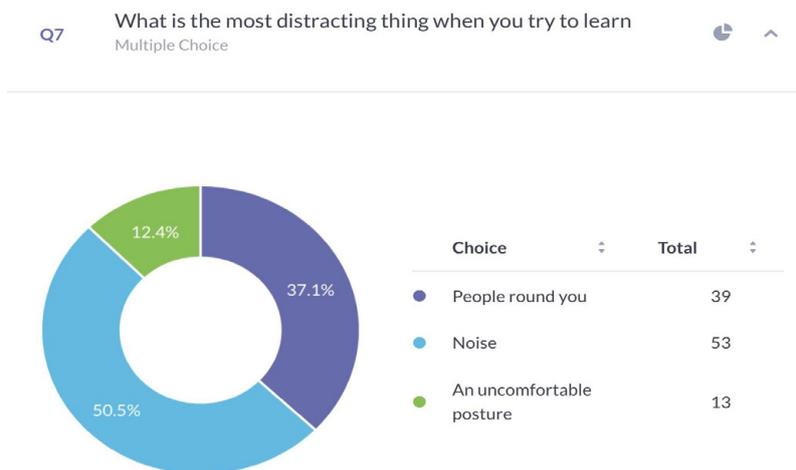


Figure 7: The pie chart represents the percentage distribution of responses about awareness on most distracting form they go through while studying, 50.5% (blue) responded that noise is the most distracting form when they try to learn, 37.1% (dark blue) responded that people round them is more distracting, 12.4% (green) responded that uncomfortable posture is distracting. Majority (blue) of them responded as noise.



Figure 8: The pie chart represents the percentage distribution of responses about awareness on relaxing mode while studying, 46.6% (blue) prefer dancing to relax after studying, 27.2% (dark blue) prefer hearing music, 26.2% (green) prefer doing exercise. Majority (blue) them preferred dancing.

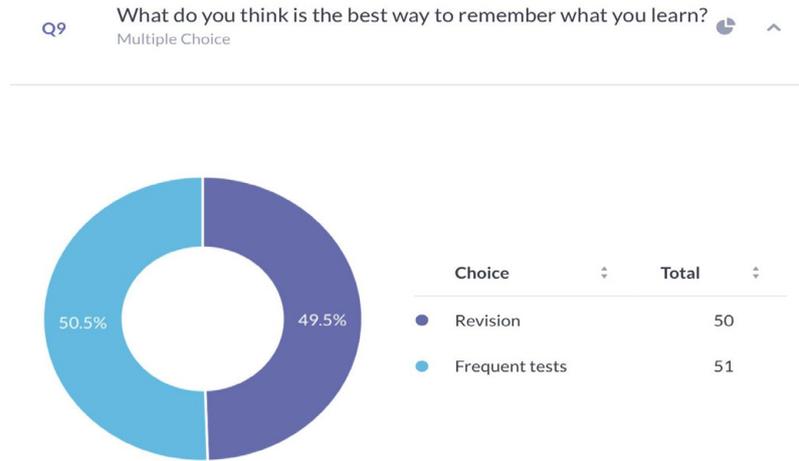


Figure 9: The pie chart represents the percentage distribution of responses about awareness on best way of remembering what they learn, 50.5%(blue) responded that frequent test is the best way to make them to remember what they learn, 49.5%(dark blue) preferred doing revision. Majority(blue) of them preferred to do revision.

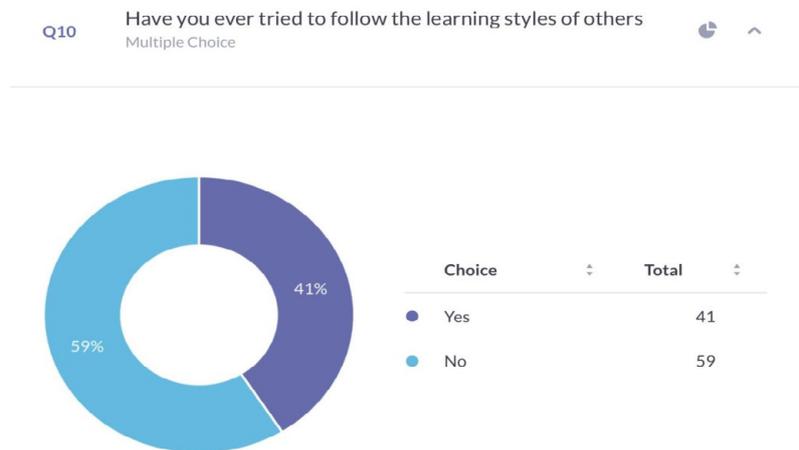


Figure 10: The pie chart represents the percentage distribution of responses about awareness on following the learning styles of others, 59%(blue) have not tried to follow the learning styles of others, 41%(dark blue) have tried to follow. Majority (blue) of them preferred following their own learning style.

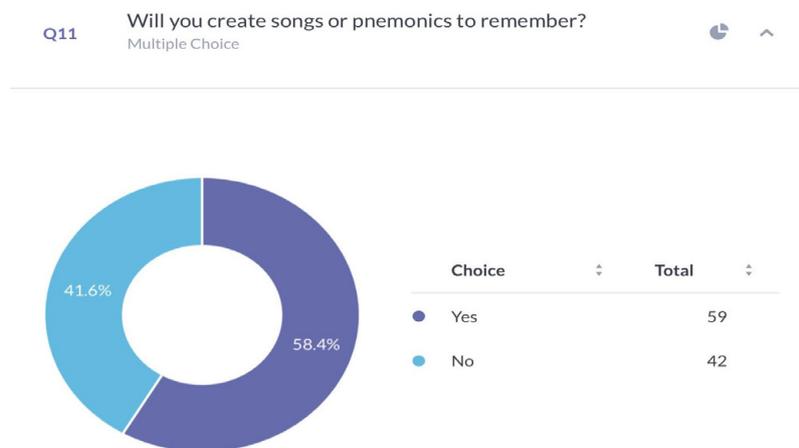


Figure 11: The pie chart represents the percentage distribution of responses about awareness on mnemonics for remembering. 58.4%, (dark blue) prefer creating songs or mnemonics to remember, 41.6%(blue) do not prefer creating songs or mnemonics to remember. Majority (dark blue) responded that they create songs or mnemonics to remember what they learn.

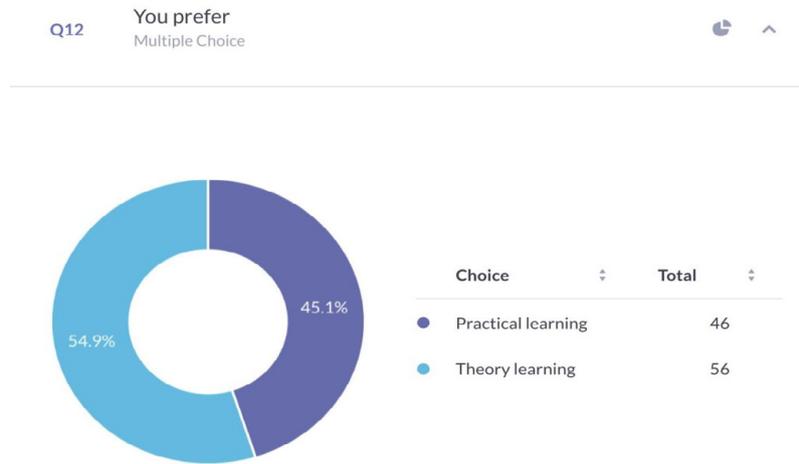


Figure 12: The pie chart represents the percentage distribution of responses about awareness on preference in learning, 54.9%(blue) prefer theory learning, 45.1% (dark blue) prefer practical learning. Majority (blue) of them preferred doing theory learning.

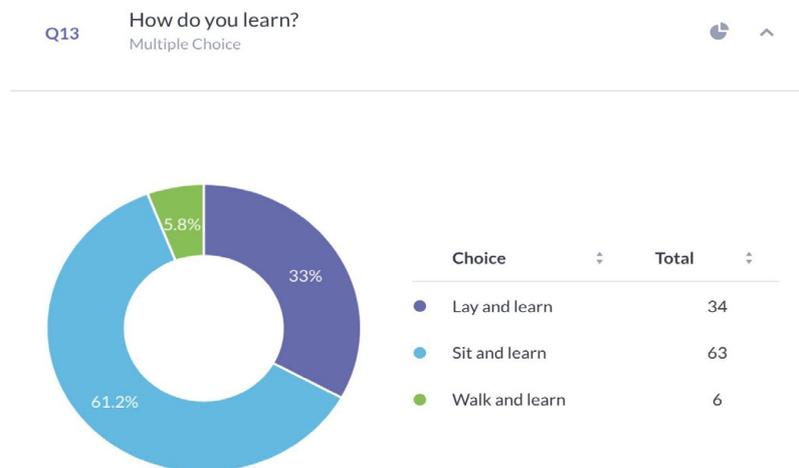


Figure 13: The pie chart represents the percentage distribution of responses about awareness on position they prefer while learning, 61.2%(blue) prefer to sit and learn, 33% (dark blue) prefer to lay and learn, 5.8%(green) prefer to walk and learn. Majority (blue) of them preferred to sit and learn.

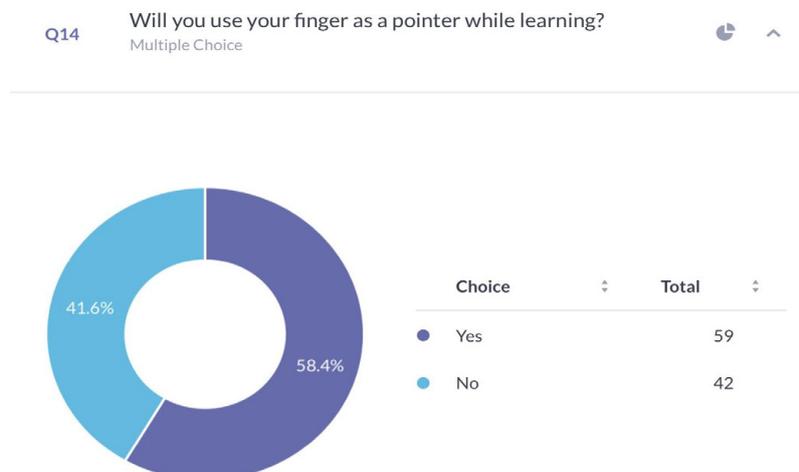


Figure 14: The pie chart represents the percentage distribution of responses about awareness on use their finger as a pointer why learning, 58% (dark blue) prefer to use their finger as a pointer while learning, 41.6% (blue) does not prefer their finger as a pointer for learning. Majority (dark blue) of them replied that they prefer to use their fingers as a pointer while learning.

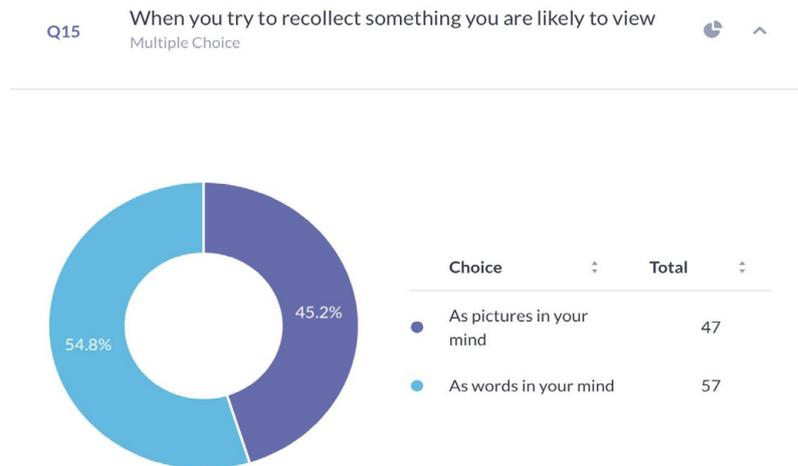


Figure 15: The pie chart represents the percentage distribution of responses about awareness on view they get in their mind while trying to re-collect, 54.8%(blue) responded that when they recollect something, they are likely to view as words In their mind, 45.2% (dark blue) responded that they are likely to view ass pictures in their mind. Majority of them responded as words in their mind.

something at the wrong time or learn something in the wrong way. Effective learning needs previous knowledge and information that helps a person to understand new knowledge and new information. Efficient learning always requires instruction on how to gain new knowledge [14].

Training is a concentrated capability that needs to be preserved and revised constantly to be productive and efficient. Training is not without chances of mistakes. Education is not only about gathering information and correctly preserving information, but also a thorough analysis into how possible available resources generated from learning can be used successfully and efficiently [15]. We must thoroughly appreciate the learning process and understand the things that interrupt or delay learning and the things that inspire learning. We ought to consider the emotional causes that influence learning and motivation, the physical factors that affect performance, issues like pain, tiredness, discomfort, or terror. You will need to consider the environmental conditions that influence learning and the emote [16]. In general, students preferred the Kinaesthetic learning style and expressed minor preference for Visual, Auditory, and Group Learning in ESL students [17]. It is all about learning. If you want to be smart, you need to learn how to be smart. If you want to be good at a particular sport, you need to know how to be good at a particular sport. If you are going to be happy, you must know what happiness [18]. Results suggested that students' teachers at Federal College of education are low on independent, dependent participant

learning styles, high on avoidant, operative and competitive learning styles, and concluded that female teachers are better in dimension for teaching [19]. The determination of the permanency of the changes after graduation and to compare the personalities and values of students and graduates to those of the faculty are needed [20]. Students are characterized by different and various learning styles, focusing on different types of information, and processing this information in various information ways. The results obtained are promising as regards the detection of the students' learning styles are different and updated [21]. Should not take schooling for granted. All you have in your life, and what you are, comes from knowing and understanding what you have learned. The importance of knowing yourself is enormous. Training is an investment in you [22]. The limitation of the study is it was done in a small homogeneous population. The future scope of this study is to assess the different learning styles and to create new learning styles for the betterment of students.

CONCLUSION

Learning styles provide neither any indication of what the students are capable of nor are they legitimate excuses for poor academic performance. The students seem to prefer the kinetics type of learning that is very easy to remember and it is unforgettable. There are a variety of learning styles and we can help the students by understanding their own way of learning style and make them do their best.

ACKNOWLEDGEMENT

The authors thank Saveetha Dental College for extending full support to complete this study.

CONFLICTS OF INTEREST

Nil.

REFERENCES

- Gatchel RJ, Schultz IZ. Handbook of musculoskeletal pain and disability disorders in the workplace. Springer Science and Business Media 2014.
- Hendricson WD, Berlocher WC, Herbert RJ. A four-year longitudinal study of dental student learning styles. *J Dent Educ* 1987; 51:175-181.
- Watts TL, Millard L. A study of personality factors and interaction in 4th-year dental students and their teachers. *Eur J Dent Educ* 1997; 1:6-12.
- McDaniel SP, Siler WM, Isenberg BP. Analysis of personality traits of the contemporary dental student. *J Dent Educ* 1985; 49:579-583.
- Naserieh F, Sarab MR. Perceptual learning style preferences among Iranian graduate students. *System* 2013; 41:122-133.
- Murphy RJ, Gray SA, Straja SR, et al. Student learning preferences and teaching implications. *J Dent Educ* 2004; 68:859-866.
- McBride K. It's the little things for mothers: 300 simple ways to take time out and treat yourself. Adams Media Corporation 2004.
- Ramya G, Priya VV, Gayathri R. Cytotoxicity of strawberry extract on oral cancer cell line. *Asian J Pharm Clin Res* 2018; 11:353-355.
- Chen F, Tang Y, Sun Y, et al. 6-shogaol, a active constituents of ginger prevents UVB radiation mediated inflammation and oxidative stress through modulating NrF2 signaling in human epidermal keratinocytes (HaCaT cells). *J Photochem Photobiol* 2019; 197:111518.
- Ke Y, Al Aboody MS, Alturaiki W, et al. Photosynthesized gold nanoparticles from *Catharanthus roseus* induces caspase-mediated apoptosis in cervical cancer cells (HeLa). *Artificial Cells Nanomed Biotechnol* 2019; 47:1938-1946.
- Ma Y, Karunakaran T, Veeraraghavan VP, et al. Sesame inhibits cell proliferation and induces apoptosis through inhibition of STAT-3 translocation in thyroid cancer cell lines (FTC-133). *Biotechnol Bioprocess Engineering* 2019; 24:646-652.
- Ponnulakshmi R, Shyamaladevi B, Vijayalakshmi P, et al. In silico and in vivo analysis to identify the antidiabetic activity of beta sitosterol in adipose tissue of high fat diet and sucrose induced type-2 diabetic experimental rats. *Toxicol Mechanisms Methods* 2019; 29:276-290.
- Li Z, Veeraraghavan VP, Mohan SK, et al. Apoptotic induction, and anti-metastatic activity of eugenol encapsulated chitosan nanopolymer on rat glioma C6 cells via alleviating the MMP signaling pathway. *J Photochem Photobiol* 2020; 203:111773.
- Y Y. Assessment of gender difference on learning styles preferences among regular undergraduate students of mekelle university collage of health science. *J Stem Cell Biol Transplantation* 2017; 1:14.
- Harden RM, Laidlaw JM. Essential skills for a medical teacher E-Book: An introduction to teaching and learning in medicine. Elsevier Health Sciences 2012.
- Owings L. The mosquito. Bellwether Media 2007.
- Khlaisang, J, Songkram, N. Designing a virtual learning environment system for teaching twenty-first century skills to higher education students in ASEAN. *Technol Knowledge Learning* 2019; 24:41-63.
- Erskine CG, Westerman GH, Grandy TG. Personality styles of first-year dental students. *J Dent Educ* 1986; 50:221-224.
- Kourkoutas E, Erkman F. Interpersonal acceptance, and rejection: Social, emotional, and educational contexts. Universal-Publishers 2011.
- McDaniel SP, Siler WM, Isenberg BP. Comparison of personality variables and values among dental students, practitioners, and faculty', *J Dent Educ* 1988; 52:156-159.
- García P, Amandi A, Schiaffino S, et al. Evaluating Bayesian networks' precision for detecting students' learning styles. *Computers Educ* 2007; 49:794-808.
- Dunn RS. How to implement and supervise a learning style program. Association for supervision and curriculum development 1996.