IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)
e-ISSN: 2279-0853, p-ISSN: 2279-0861.Volume 15, Issue 11 Ver. II (November. 2016), PP 62-64
www.iosrjournals.org

Improve Academic Performance of the Students Using Vark Inventory

Medha Joshi[1], Ivan R.K[2], Anant Joshi[3], J Prasanna Kumar[4]

[1]*Head Quality Assurance, Health Sciences Gokul Education Foundation GFU (Medical) M.S.RamaiahMedical College, Bangalore, Karnataka, India*
[2]*Lecturer, Department of Physiology, faculty of medicine, MAHSA University, Kuala Lumpur*
[3]*Professor, Department Of Ophthalmology, International Medical School (IMS), Master Science University (MSU) Bangalore Campus, Karnataka India*
[4] *Associate Professor, Department of Physiology, faculty of medicine, MAHSA University, Kuala Lumpur*

I. Introduction

A bridge from the known to the unknown is teaching. Part of the bridge is to understand the learners, the learning process, understanding and identifying how knowledge is elated from textbooks, videos and the multimedia's to the learners (Alexandra &Georgeta, 2011) [1]. There are several methods used to determine learning styles. Fleming defines "A learning style is, rather, a description of a process, or of preferences. Any inventory that encourages a learner to think about the way that he or she learns is a useful step towards understanding, and hence improving, learning ". One of the most commonly used learning styles inventory is the Fleming VARK model.[© Copyright Version 7.8 (2014) held by VARK Learn Limited, Christchurch, New Zealand.] VARK classifies the learners into four visual, auditory, reading / writing and kinaesthetic learners. Knowing the learning styles will help students adopt learning strategies best suited for them. The Visual, Auditory, Reading/Writing, Kinesthetic (VARK) tool is easy to govern, and the outcome can impact the effectiveness, quality of a learning environment if these elements are considered and accounted for in the learning environment. The impact of learning styles through a simple administration of the VARK instrument should be acknowledged by teachers and teacher educators. Researchers are concentrating on the methodologies of learning style preference. Students are displaying different modes of learning with differing abilities based on their interest and understanding (Kumar et al; 2012) [2]. The early research focused on three distinct learning styles of visual (V), auditory (A) and kinaesthetic (K), collectively known as VAK. Bruner and Piaget did most of the early work on how humans assimilate knowledge about their environment. In 1992, VAK converted into VARK by Fleming and Mills by adding reading/writing modalities (Bernardes& Hanna, 2009) [3]. The query was posed whether there is relationship between perceptual learning styles and learning proficiency but the question was emphatically unanswered (Kratizig&Arbuthnott, 2006) [4]. Research matching modality to preferred style based on questionnaires also found no significant impact, and Kratzig and Arbuthnott proclaimed that learning styles is a "folk theory" held by teacher educators that has little or no empirical support. Despite these conflicting views, learning styles are an excellent area for budding research. Thus, knowing the learning styles may helpstudents adopt learning strategies best suited for them.

Aim and objective

The aim of thispilot research study is to assess the different learning styles of students in our college and to improve the academic performance of the each student by using VARK inventory.
The main objective of this research study is to promote use of VARK in early assessment of student's preferred learning style and there by assist teacher to develop appropriate learning approaches so has to improve students' academicperformance.

Inclusion criteria

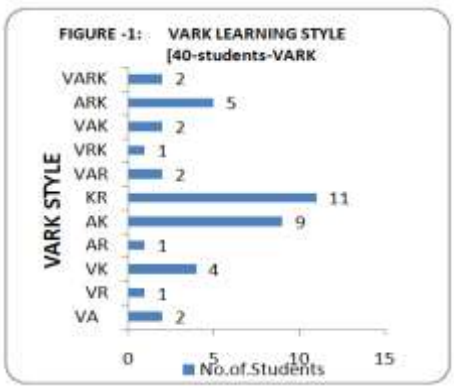
All the forty [40] both male and female students of the first year MBBS studying in International Medical school [IMS], Bangalore ,India offshore campus of Master science university [MSU]of Malaysia where included in the study.

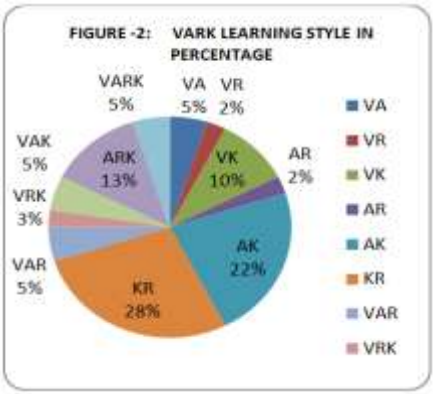
II. Methodology

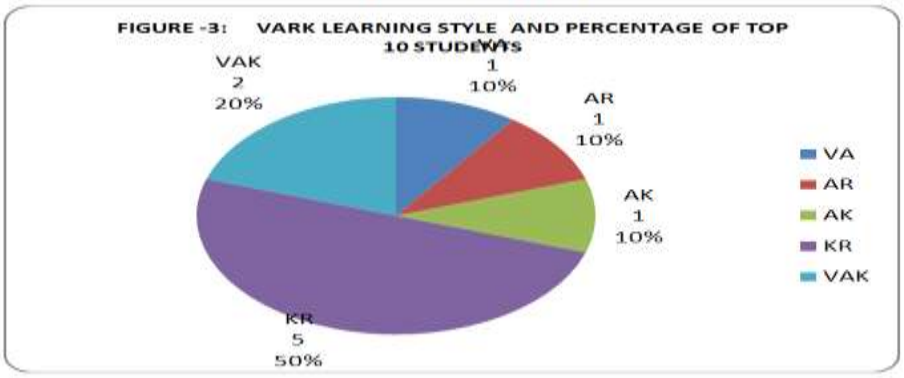
This study analyses the learning styles and approaches to learning at International Medical School (IMS), Bangalore Campus. The study was conducted in two phase, in Phase-1 Administration of the VARK inventory and in Phase- II assessing the students' academic performance. During Phase-1, the questionnaires were distributed to students and asked to complete the VARK inventory on the first day of orientation to the course. All the participants were briefed as to the objectives of the study, and confidentiality of responses as ensured by maintaining anonymity of responders. They were also told the various study strategies that were considered most effective for learning for the various categories of learners. The students were asked to give feedback about their opinion of the VARK inventory, the ease of use, the value of presentation and discussion, and were asked if they intended on using the study skills suggested in their respective categories. The students were also asked to report, via email, any new study skills they had used secondary to the session and were asked if this study skill seemed to improve their learning. They asked many questions about their results, and how they could incorporate the suggested study skill into their study routine. Each response was noted according to protocols developed by the developers. VARK Phase-II involves a continuous monitoring of the students' performance in continuous and internal assessments for all the preclinical subjects. Top ten students were interviewed to find out their study preferences and the ethics maintained.

III. Results

40 students completed the inventory and most of the students had mixed learning styles, that is about 50% of the students belong to KR and AK category. The results are depicted in the Figure- 1.As shown in the Figure- 2, 28% students showed kinaesthetic and reading (writing) styles (KR), another 22% of the students scored predominantly on auditory and kinaesthetic styles (AK).VARK styles were then compared to the academic performance on tests for each subject sorted from highest to lowest. About 50% of the top ten ranking students (academic wise) were of KR category. 20% of the students belong to VAK category. Results are elicited in the Figure 3. Among the top ten students in each subject, >70% were female. This could reflect a better performance by females or it could be because of more number of female students in the class (26 females and 14 males out of 40).







IV. Discussion

Knowing the learning fashion of students is a precious skill and technique in teaching. It will help the teachers to identify and work out learning troubles among students, thus helping the students to become more effective and successive learners (Murphy, Fleming)[5] [6]. In 90's teachers have been aware that both students and educators have different learning styles, different methods of knowing about the world; because students take in information in different ways and use different cognitive schemes, many educators advise that teachers vary the tasks they allocate to students to convene and address these different ways of knowing. Many of these ways of shrewd will blow students in distance learning classes (or supplements to traditional classes) that are mediated over the internet. Some students prefer to take in knowledge via sight – for them, a lecture delivered by a lecturer in front of a classroom without any visuals may be thorny to follow, and rated as "useless", but on the other side few students are interested in attending a lecture class than or no visual images and the same lecture a rich and engaging experience for those category students. Some students grasp a particular concept as an intuitive whole, and find themselves frustrated by a step to step description given by the teacher, while others – who simply process information differently – need that step by step process to absorb the given idea (Burton)
Its necessary for the educators to find the VARK performance of the students in a particular classroom to provide useful lectures. The present study performed on this basis and the results gives an important correlation between VARK learning and academic performance of the students. The VARK inventory administered to the first year students to determine their best method of learning. It was intended to be an intervention in the early phase of education in order to maximise their learning and success. In addition, it was planned to improve faculty awareness of the various learning styles of their students.

40 students successfully completed the inventory and explore that the students had mixed learning styles, that is about 50% of the students belong to the KR and AK category. Out of these, 28% students showed kinaesthetic and reading (writing)styles(KR) , another 22% of the students were on auditory and kinaesthetic styles of learning group (AK). Thus, most of the students belong to KR and AK category. By executing these styles of learning, students' academic performance can be improved. Thus the comparison between VARK style and academic performance has been carried out. About 50% of the top ten ranking students were of KR category and 20% students belong to VAK category. Based on these results, we adopted a good method of teaching. It would also be useful in designing appropriate teaching methodology. Assignments formed a main part of self-directed learning sessions to accommodate the "R' category students. The number of practical hours was modified to "K' category. These modifications have helped students to perform better as reflected in the University results – Physiology 100%, Anatomy 97.5% and Biochemistry 92.8%. Thus the overall pass percentage increased and the students felt more comfortable with the education system. Some students prefer particular learning modality to understand the subject, so the educators have to give special attention to each category of students to get the good academic records.

Overall, it is vital for teachers and teacher educators to think about learning styles in the progress of their courses. Most of the studies reported that today's students are multimodal, diverse, and benefit from the additional cognitive awareness and introspection. So the educators have to change their version according to the modern generation. It may not be essential for teacher and teacher educators to test and instruct the students in each and every situation, finding the students' category with the VARK instrument is simple and fast and give imperative information that is valuable to create an effective learning atmosphere. Knowledge of the learning styles and taking into account of their impact on learning environments are first steps toward an essential understanding of student's mentality.

V. Conclusion

The study data reveal's the potentiality of implementing VARK towards student's academic performance enhancement. Student's with different preferred learning styles will help instructors in the faculty to develop appropriate learning approaches and explore opportunities and will help to make the educational experience more productive.

References

[1]. Alexandra, M. I., &Georgeta, M. (2011). How to better meet our students' learning style through the course resources. Annals of The University of Oradea, Economic Science Series, 20 (2), pp.578-585.
[2]. Kumar, A. A., Smriti, A., Pratap, S. A., &Krishnee, G. (2012, January-March). An analysis of gender differences in learning style preferences among medical students. Indian Journal of Forensic Medicine and Pathology, 5 (1), pp. 9-16.
[3]. Bernardes, E., & Hanna, M. (2009, January). How do management students prefer to learn? Whyshould we care? International Journal for the Scholarship of Teaching and Learning, 3 (1),pp. 1-12.
[4]. Krätzig, G. P., &Arbuthnott, K. D. (2006). Perceptual Learning Style and Learning Proficiency: ATest of the Hypothesis. Journal of Educational Psychology, 98, 238-246.
[5]. Murphy, R.J., Gray, S.A., Straja, S.R. and Bogert, M.C. (2004). Student learning preferences and teaching implications. Journal of Dental Education, 68(8), 859-866.
[6]. Fleming, N.D. and Mills, C. (1992). Helping students understand how they learn. The teaching professor, 7(4).