Editorial

Overview of Learning styles

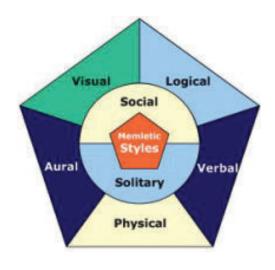
It is known that learning processes vary from person to person due to the presence of biological and psychological differences and it has been proven that students possess diversity in learning styles.¹ Learning style are defined as "the complex manner in which, and conditions under which, learners most effectively perceive, process, store, and recall what they are attempting to learn".2 It was observed that learning problems are frequently not related to the difficulty of the subject matter but rather to the type and level of the cognitive processes required to learn the material.³ Study findings^{4,5} found out an encouraging increase achievement after the implementation of lessons based on learning styles that teachers identify with. So in teaching-learning process, student diversity of learning styles needs to be taken into consideration by the teachers and instruction method in classes should be diversified in order to meet all students requirements. By this way, teachers can create an optimal learning environment for most students in a class.

According to the findings by several leading psychologists, following seven specific types of learning styles have been identified:

- 1. Visual (spatial)
- 2. Aural (auditory)
- 3. Verbal (linguistic)
- 4. Physical (kinesthetic)
- 5. Logical (mathematical)
- 6. Social (interpersonal)
- 7. Solitary (intrapersonal)

1. Visual (spatial)

A visual learner uses images, color and other visual media to enrich his learning. This category of students are more prone to accept learning through interpreting charts, graph, figures, and pictures. ⁶ They also are able to explain a concept to others by drawing a figure or picture. ⁷ Students that have visual intelligence are usually rich with imagination



and are inclined to be creative and imaginative. This visual journey will help in long term memorization.

1. Aural (auditory)

Aural mode students tend to attain information by discussion and listening. These students give more attention to the words delivered by teachers. They prefer to listen than writing lecture notes. After lectures end, they choose to discuss topics which were taught with classmates, as a way to clarify their understanding. This type of students can remember information through loud reading or mouthing when reading. Students can strengthen their memory by listening again to audio tape recordings.

3. Verbal (linguistic)

This type of learner loves to read and write. They prefer words and texts as an information obtaining method.⁸ These students have the ability to accept and interpret printed information.⁶ They study better through note taken from lecture or from difficult reading materials.¹

4. Physical (kinesthetic)

kinesthetic students go through experience to learn something.⁷ Regarding this style learner use touch, action, movement and hands-on work in their Bangladesh J. Anat. 2019; 17(2): 30-31

learning activities.¹ When they are to learn a new skill or topic, they would prefer to get involved with the practical parts like performing experiments, dissections, clinical examinations of the patient. Students that possess this type of intelligence are active and easily learn physical skills.¹⁰

- **5.Logical (mathematical)-** This type of analytical learners focus on logical analysis and thinking to solve problems. ¹¹ They like using brain for logical and mathematical reasoning. They work through problems and issues in a systematic way. They value logical examples or statistics. PBL is a suitable teaching-learning approach for them. They pick up logic flaws in other peoples' words, writing or actions. They like working out strategies.
- **6.Social (interpersonal)-** Students predisposing with this style prefer to learn in groups. They learn better by sharing information. Group study encourages brain storming resulting achievement of fruitful outcome. They have a strong social style and can communicate well with others. Moreover working in group to practice behaviour or procedures help the student understand how to deal with variations. Team based learning is a good option for them.
- **7.Solitary (intrapersonal)** This type of learners are introspective and independent. They prefer to learn alone using self-study. They may dislike learning in groups. They assess their own accomplishment and challenges. They do best in self-paced instruction, individualized projects and working alone.

Learning style diversity, when properly understood by both learners and educators, can be converted into appropriate teaching and learning methods for better impact. Students, when knowing their learning style, can augment their learning and support the areas of weakness in their styles. Teachers or educators, on other hand, can match the different learning style to their teaching styles or even can adjust curriculum activities.

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References

- Drago WA, Wagner RJ. Vark preferred learning styles and online education. Manag. Res. News. 2004 Jul;27(7):1-13.
- James WB, Gardner DL. Learning styles: Implications for distance learning. New Dir Adult Cont Educ. 1995 Sep;67:19-31.
- 3. Keefe JW, Ferrell BG. Developing a Defensible Learning Style Paradigm. Educ Leaders. 1990;48(2):57-61.
- Bryant K. Teaching a first-level programming course to management students: a flexible approach. In proceedings of the Australasian conference on computing education 2000;19-25
- Burgess GA, Hanshaw C. Application of learning styles and approaches in computing sciences classes. J. Comput. Sci. Coll. 2006 ;21(3):60-8.
- Fleming ND. VARK visual, aural/auditory, read/ write, kinesthetic. New Zealand: Bonwell Green Mountain Falls. 2006.
- 7. Murphy RJ, Gray SA, Straja SR, Bogert MC. Student learning preferences and teaching implications. J. Dent. Educ. 2004 Aug;68(8): 859-66.
- Othman N, Amiruddin MH. Different perspectives of learning styles from VARK model. Procedia Soc Behav Sci. 2010;7:652-60
- Miller P. Learning Styles: The Multimedia of the Mind. Research Report. 2001.
- Armstrong AM, editor. Instructional design in the real world: A view from the trenches. IGI Global; 2004.
- 11. Awla HA. Learning styles and their relation to teaching styles. IJLL. 2014;2(3): 241-5.