USING COOPERATIVE LEARNING TO ACCOMMODATE THE VAK MODEL IN CLASSROOMS

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Abstract

In a constructivist classroom the role of the teacher is not to disseminate information, but to become a facilitator to help students actively construct their own knowledge. Individual differences among students have highlighted the fact that each of us has different learning styles. There are three learning modalities or learning styles: Visual, Auditory and Kinaesthetic. This is also known as the VAK model. Researches have indicated the importance of utilising different instructional or teaching strategies to accommodate different learning styles and promote students' academic achievement. Cooperative learning is the instructional use of small groups so that students work together to maximize their own and each other's learning. The present paper attempts to show how the three learning styles can be accommodated using examples of Cooperative Learning teaching strategies as classroom activities. These activities encourage learners become active during the teaching learning process, which is the core feature of constructivism.

Keywords: *Constructivism, Learning Styles, VAK Model, Cooperative Learning.*

1. Background:

1.1 The constructivist classroom:

In a constructivist classroom the focus tends to shift from the 'teacher' to the 'students'. It is no longer a place where the students are passive like empty vessels waiting to be filled up with the knowledge poured in by the teacher. Instead in the constructivist classroom, the students are encouraged to actively participate in the learning process. Knowledge is not be memorised, as it is considered dynamic and ever-changing view of the world we live in. The students are motivated to be active and successfully stretch and explore their view using as many senses. Hence the role of the teacher is not to disseminate information, but to become a facilitator to help students construct their own knowledge. Individual differences among students have highlighted the fact that each of us has different learning styles.

1.2 The VAK Model:

Learning style is the nature in which the individual predisposes himself/herself to acquire and absorb information in their environment. Learning styles affect the learning process of individuals and should be taken into consideration in designing learning. There are three learning modalities: **V**isual, **A**uditory and **K**inaesthetic. This is also known as the VAK model proposed by Neil Fleming (2001).

Some researchers have indicated that the application of learning models need to take into consideration the student's learning style, because the application of learning models that correspond to students' learning styles will encourage the achievement of maximum learning results. When teachers and students understand the diversity of learning styles, which are then applied to the methods of learning and teaching, it will enable students to be more successful in learning.

Visual learning style (visual) is a learning style through which people learn best when they 'see' the images they are learning about, and can learn through reading. Visual learners think in pictures and learn best in visual images. They rely on nonverbal cues from the instructor or facilitator e.g. body language to help the process of understanding. Sometimes, visual learners prefer to sit in front of the class.

The auditory learning style is one in which people learn better when they 'hear' what they are learning about. (Rahman, Ahmar & Rusli, 2016). These individuals discover information through listening and interpreting information by the means of pitch, emphasis and speed.

Individuals that are kinaesthetic learners absorb best with an active "hands-on" approach. These learners favour interaction with people and the physical world (Gilakjani, 2012).

1.3 Cooperative Learning:

Cooperative learning is the instructional use of small groups so that students work together to maximize their own and each other's learning (Johnson & Johnson, 1993). Here students work together to attain group's goals that cannot be obtained by working alone or competitively (Johnson, Johnson & Holubec 1986). Cooperative learning utilizes the theories by Vygotsky, Piaget and Kohlberg in that both the individual and the social setting are active dynamics in the leaning process as the students attempt to imitate real life learning experiences. It is a teaching strategy which allows students to work together in small groups with individuals of various talents, abilities and backgrounds to accomplish a common goal. Each individual team member is responsible for learning the

material and also for helping the other member of the team to learn. Students work until each group member successfully understands and completes the assignments, thus creating an "atmosphere of achievement." (Panitz.1996)

2. **Merging Cooperative Learning and Learning styles:**

Some investigators confirmed that the alignment of teaching strategies and learning styles has a positive impact on the academic achievement of students. For example, Tulbure (2012) found significant differences between the achievement scores obtained by three categories of learners (convergers, divergers and accommodators) from two faculties of a Romanian University after the cooperative learning strategy was implemented.

A study conducted by Fayombo (2015) investigated the learning preferences (visual, auditory, kinaesthetic), the teaching strategies (videos, games, role-play, discussion, group work) and their influence on the academic achievement of 171 undergraduate Psychology students at the University of the West Indies, Cave Hill Campus, Barbados. The findings indicated the importance of utilising different teaching strategies to accommodate different learning styles and promote students' academic achievement.

Researches have shown that it is necessary for the instructors to discover their learners' distinctive behaviours at the beginning of the academic or training session so as to be able to utilise the teaching strategies that will match the varieties of their students' learning styles for good academic achievement.

3. **Cooperative Learning techniques accommodate the VAK model:**

There are many cooperative learning teaching strategies and techniques. Some of them can be implemented on pairs or dyads. If the classroom consists of odd number of students then techniques can be conducted on groups of three students or triads. Cooperative learning strategies can also be done using small groups of not more than 6 learners per group. All these techniques can be successful if they reflect the five main elements of cooperative learning i.e. Positive Interdependence, Face to Face Promotive Interaction, Interpersonal and Small-Group Skills, Individual Accountability/Personal Responsibility and Group Processing.

Cooperative learning techniques can be used to assist visual, auditory and kinaesthetic learners. Below are examples of cooperative learning strategies along with the description with their steps during implementation highlighting how these accommodate the VAK model. The researcher has added the last step in both the examples as it is seen that this step is rarely given in literature. However it is an important component of Cooperative

Learning. This step reflects the fifth element i.e. Group Processing which is important for the effective use of cooperative learning techniques in future pair/group activities.

3.1. Think-Ink-Pair-Share:

This is a Cooperative Learning technique which is conducted in pairs.

Steps:

i. Think: After a lecture or text reading, the teacher asks students to take a few moments to think about the information introduced to them (Auditory Learners if the introductory input is in the form of a lecture/ Visual Learners if the input is in the form of text).

ii. Ink: Students elaborate on the information from the teacher's lecture or the text by writing down their ideas or reflections (Kinaesthetic and Visual Learners).

iii. Pair: Students discuss their writing in pairs. Based on the conversation with their partner, students return to what they wrote and modify or enhance their writing (Kinaesthetic and Auditory Learners).

iv. Share: Finally, ideas will be shared through a whole class, small group, or partner format, and students will include how their thinking changed after discussing their thoughts. (Kinaesthetic, Visual and Auditory Learners) (Think-Ink-Pair-Share, 2005)

v. The teacher asks the pairs to discuss and evaluate their answers as compared to the other pairs. This step helps students to perform better in future pair activities. (Kinaesthetic and Auditory Learners)

3.2. Round Table Technique:

In this Cooperative Learning technique the class is divided into groups of 3 to 6 students per group. Thus this technique can be conducted in triads as well as in small groups.

Steps:

i. Teacher poses a problem with many possible answers. (Auditory Learners)

ii. Students make a list on one piece of paper, each writing one of the possible answers and then pass the paper to the next person. (Visual and Kinaesthetic Learners)

iii. The paper literally goes round the table.

iv. The teacher calls out groups in random and asks the groups to share their answers with the class (Auditory, Visual and Kinaesthetic Learners) (Kagan, 1998)

v. Finally the groups are asked to discuss and evaluate their performance as a group. They are encouraged to discuss the merits and limitations of the group's performance

and how they can improve their performance in future group activities. (Auditory and Kinaesthetic Learners)

The above examples show that it is possible to accommodate and cater to students with different learning styles using cooperative learning techniques at the same time during classroom interactions.

Conclusion:

A number of researches have indicated that teachers and students should be encouraged to identify students' learning styles as it helps in effective learning. Knowing the learning style of the students, help teachers to plan their lessons to cater to the dominant learning style of the students in a class. However there is a strong possibility that using cooperative learning techniques can help teachers to assist and accommodate students with visual, auditory and kinaesthetic learning styles simultaneously. The use of these techniques also brings about dynamic interaction between students as well as with the teacher. Moreover they promote construction of knowledge on the basis of the student's past experience, which is the main core of constructivism.

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