

AEG5109 Approaches to Teaching and Learning

## **Investigation and Reflection on Learning Styles Theory**

“Most simply conceived, learning style is the typical way an individual likes to go about learning.” (Smith & Dalton, 2005). This is the idea that underpins what is commonly known as learning styles theory - an individual will have an ingrained mode or method of learning that appeals to them, and they will learn more effectively if the learning is presented to them in that format. This idea has existed for several decades now, and has been widely interpreted, modified and critiqued. On the whole, research has shown that strict adherence to a particular facet of learning styles theory may in actuality be counter-productive to students’ education (Scott, 2010). However certain elements can be used with, and observed to have, some efficacy in classroom settings.

Each new interpretation of learning styles theory has created a new model and a new set of what are often termed style dimensions. A casual reader would be forgiven the assumption that there are a vast array of style dimensions (Riding, 2001), as many as there are labels for them. In actuality, many of the sets of labels attributed to the models of learning styles are closely correlated to others, and closer inspection will reveal the similarities and areas of overlap. They are by no means mutually exclusive. A second assumption that is not uncommon is that one person will have a predisposition toward only one particular learning style to the exclusion of all others, and that this is unchanging. Learning styles are, in fact, contextual, and one person may favour one learning style over others for a particular task, whilst having an inclination for a different or even opposite learning style on a second task.

There are dozens of different models of learning styles theory, far more than can be covered in one paper. A few key theories will be briefly reviewed hereafter. One well known model of learning styles theory is that of Kolb’s Experiential Learning Model. Kolb posited that learners prefer learning experiences to be either concrete experience, abstract conceptualisation, active experimentation or reflective observation. Felder and Brent (2005) note this, and list four categories of

classification: diverger, assimilator, converger and accommodator. These classifications are very similar to those found in the Myers-Briggs indicators as well as other learning and personality type testing which are widespread throughout the corporate and professional business environment.

Marton and Säljö's theory of learning styles has a slightly different focus, and looks at approaches to learning as opposed to other more method based models. Felder and Brent (2005) discuss this theory and note that the three approaches proposed are surface, deep and strategic. A surface approach is that of memorising facts and procedures without seeking further knowledge, whereas a deep approach involves understanding of material learned and how it fits into a wider context. A strategic approach is the deliberate use of either deep or surface techniques of learning on a needs basis, with the goal of achieving the best result.

Another learning style model is based on the concept of learning activities as thinking activities involving metacognition. Vermunt (1996) discusses the three categories included in this model. Cognitive processing activities are those which include the thinking aspect of learning. Affective learning activities are concerned with the feelings that may be induced by and toward learning. Metacognitive regulation activities are those which seek to consciously combine and control both both cognitive and affective activities - in other words, metacognition is self-awareness about one's own learning and an attempt to direct learning activities effectively.

Fleming's VARK theory, subsequently modified to VAK, is the model of learning style theory most commonly used in Australian schools (Scott, 2010) and as such will be the focus of this paper. This is based on the Neuro-Linguistic Programming model (Pritchard, 2009) and divides learners into three discrete groups: those that learn and absorb information best via Visual, Auditory or Kinaesthetic (Tactile) modes. Visual learners, as the name suggests, prefer information to be presented to them visually, most often in the form of illustrations, diagrams and other visual media. Auditory learners are better able to assimilate information that they hear,

be it a lecture, story or participating in a discussion. Kinaesthetic learners gain the best understanding by doing - physically manipulating objects and practical, first-hand experience.

The VAK learning styles theory has been observed to positively influence cognition and understanding within a classroom setting. A recently taught mathematics class in the Western suburbs of Melbourne included a game called Greedy Pig. The pre-service teacher first explained the rules of the game to the combined year seven and eight class, secondly played one round with the entire class including writing scores and notes on the whiteboard, and finally split the class off to play in small groups. It was observed that some students understood the fundamentals of the game right from the initial explanation (Auditory processors), several students attained understanding once they had the visual cue of the example written on the board (Visual processors), and a final set of students only fully grasped the rules once they had their hands on the dice and actually began to play (Kinaesthetic processors). This was a clear example of the synthesis of learning styles required to achieve understanding within the class as a whole.

No one model within learning styles theory is adequate to provide a complete and comprehensive framework for teaching. Each model has aspects which are beneficial, but generally lack a holistic view of the process of teaching and learning. As an example, the VAK model has been observed to work effectively to facilitate understanding within a class - indeed when used correctly it adds variation and interest to a lesson plan - but the model does not incorporate any theory regarding student or teacher engagement. Boström and Lassen (2006) advocate that metacognition is helpful for students in that it assists them in taking the initiative in their own learning. If they are aware of their own learning style preferences students can actively engage with teaching staff and negotiate more effective outcomes for their own education.

Another issue to consider with the VAK model of learning styles theory is that a teacher may consciously or unconsciously gravitate towards a particular style of

information delivery based on their own innate learning style preference. The pre-service teacher mentioned above is a self-acknowledged Visual/Auditory learner, and must therefore deliberately strive to integrate hands-on, practical elements into lesson plans in order to ensure that students who are Kinesthetic processors are not disadvantaged. Teachers may also experience difficulties relying on one particular model if they make a misinformed judgement regarding the preferred learning styles of their students. Sims and Sims (1995) support the notion that teachers must be aware of their own and their students' preferred learning styles, but state that teachers should ensure that they utilise a variety of teaching methods in order to increase chances of effective learning.

Learning styles theory is a broad base that has been explored and interpreted in a variety of ways. Each model of learning styles theory has been reviewed and critiqued, and it is widely recognised that no one model of learning styles theory is by itself a positive contribution to teaching. Each of the models have both positive and negative features. An engaged teacher seeking to provide the best learning experience would be best served by taking the positive elements from the models that appeal to them and their style of teaching and combining them into their personal teaching philosophy and methodology.

## References

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