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Match or Mismatch Between Business Students' and Business Academicians' Learning Styles: A Research at Toros University

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Abstract

To improve academic achievement and best learning outcomes it's important to consider the learning experiences to develop alternative course structures that provide a better fit between their instructional goals and the learning style preferences of their students (Anoloui, 1995). Not only Whetton-Clark (1996) and also Stitt-Gohdes (2001) supports the concept that most teachers teach the way they learn because they are not skilled in adult learning theory. Recent studies show that a match between teaching and learning styles helps to motivate learning (Spicer, 2004). Despite the ongoing discussion about learning styles it is important to know how learners learn and how teachers' learn. 140 students and 13 professors complete a questionnaire to determine if their learning styles are read & write, auditory, visual or kinesthetic. Discovering the mismatch and match between professors' and students' learning styles will help to improve better teaching model and intelligence of teaching. For the research problem, VARK (Fleming, 2001) questionnaire were completed by business professors and students at Toros University, in Mersin, Turkey.

Keywords: Learning Styles, VARK, Business Education, Students

1. Introduction

Educator should consider learning styles because recent studies have shown that a match between teacher and student helps to motivate process of learning. According to Sprenger (2003) and Leaver, (1997) people are born to learn. If so, why do students fail to learn? Leaver suggested, "Most school programs are designed in ways that nourish one group of learners while placing another group at risk of starvation. Some instructors lecture, others demonstrate or discuss; some focus on rules and others examples; some emphasize memory and others understanding. How much a given student learns in a class is governed in part by that student's native ability and prior preparation but also by the compatibility of his or her characteristic approach to learning and the instructor's characteristic approach to teaching. The ways in which an individual characteristically acquires, retains, and retrieves information are collectively termed the individual's learning style. Since students learn in many ways—by seeing and hearing; reflecting and acting; reasoning logically and intuitively; memorizing and visualizing, in a study of business students, the Index of Learning Styles Questionnaire by Felder and Soloman has been routinely employed for some years as a component of management development courses in

business schools (Van Zwanenberg, Wilkinson, and Anderson, 2000; Pashler, McDaniel, Rohrer, & Bjork, 2009; Buch and Bartley, 2002).

2. Learning Styles

How people learn? Learning styles can define in multiple ways according to basic theory & discipline. According to Brown (2000), learning styles are the manners in which individuals perceive and process information in learning situations. Learning style preference is one aspect of learning style, and refers to the choice of one learning situation or condition over another. Learning styles are the general approaches—for example, global or analytic, auditory or visual—that students use in acquiring or learning any other subject. Different than Brown (2001) define as the manner in which a learner perceives, interacts with, and responds to the learning environment. Most definition of the learning style includes such characteristics “cognitive, affective, social, and physiological behaviors that serve as relatively stable indicators of how learners perceive, interact with, and respond to the learning environment”. Learning styles are “characteristic cognitive, affective, and psychological behaviors that serve as relatively stable indicators of how learners perceive, interact with, and respond to the learning environment”. Students have different levels of motivation, different attitudes about teaching and learning, and different responses to specific classroom environments and instructional practices. The more thoroughly instructors understand the differences, the better chance they have of meeting the diverse learning needs of all of their students (Bacon, 2004; Baud, 1990). The concept of learning styles has been applied to a wide variety of student attributes and differences. Some students are comfortable with theories and abstractions; others feel much more at home with facts and observable phenomena; some prefer active learning and others lean toward introspection; some prefer visual presentation of information and others prefer verbal explanations. One learning style is neither preferable nor inferior to another, but is simply different, with different characteristic strengths and weaknesses (Lyons, 1984). A goal of instruction should be to equip students with the skills associated with every learning style category, regardless of the students’ personal preferences, since they will need all of those skills to function effectively as professionals. Students are characterized by different learning styles, preferentially focusing on different types of information and tending to operate on perceived information in different ways. To reduce attrition and improve skill development in engineering, instruction should be designed to meet the needs of students whose learning styles are neglected by traditional engineering pedagogy. Several dozen learning style models have been developed recently. Below are the most common used models in the recent studies.

Fleming VARK Learning Styles Visual (V) This preference includes the depiction of information in maps, spider diagrams, charts, graphs, flow charts, labeled diagrams, and all the symbolic arrows, circles, hierarchies and other devices, that people use to represent what could have been presented in words. This mode could have been called Graphic (G) as that better explains what it covers. It does NOT include still pictures or photographs of reality, movies, videos or PowerPoint. It does include designs, white space, patterns, shapes and the different formats that are used to highlight and convey information. When a manager moves to the whiteboard and draws an institutional organization chart with meaningful symbols for the relationship between units, that will be helpful for those with a visual preference. It must be more than mere words in boxes otherwise it is merely helpful to those who have Read/write as their first and main preference. Aural (A) This perceptual mode describes a preference for information

that is “heard or spoken.” Business people with this as their main preference report that they learn best from conference presentations, group discussion, radio, email, using mobile phones, speaking, web-chat and talking things through. Email is included here because; although it is text and could be included in the Read/write category (below), it is often written in chat-style with abbreviations, colloquial terms, slang and non-formal language. This preference includes talking out loud as well as talking to oneself. Often people with this preference want to sort things out by speaking, rather than sorting out their ideas and then speaking so in business meetings they may say again what has already been said or ask an obvious and previously answered question. They have need to say it themselves and learn through saying it – their way. Read/Write(R) This preference is for information displayed as words. Not surprisingly, many people who have senior positions in business have a strong preference for this mode. Being able to write well and read widely are attributes sought by many business managers and owners. This preference emphasizes text-based input and output – reading and writing in all its forms but especially the written plans, reports and papers found essential to effective business operations. People who prefer this modality are often addicted to PowerPoint, the Internet, lists, diaries, dictionaries, thesauri, quotations and words, words, words... Note that most PowerPoint presentations and the Internet, GOOGLE and Wikipedia are essentially suited to those with this preference as there is seldom an auditory channel or a presentation that uses Visual symbols as described above. Kinesthetic (K) For those who have a weak score (preference) for this mode it is often misunderstood. By our definition it refers to the “use of experience and practice (simulated or real).” Although experiences may include many other modalities, the key is that people who prefer this mode are connected to reality, “either through concrete personal experiences, examples, practice or simulation.” It includes demonstrations, walk-throughs, pictures, photographs, simulations, videos and movies of “real” things, as well as case studies, practical sessions and applications. The key is the reality or concrete nature of the example. If it can be grasped, held, tasted, or felt it is probably to be included here. People with this as a strong preference learn from the experience of doing something and they value their own background of experiences and less so, the experiences of others. It is possible to write or speak kinesthetically if the topic is strongly based in reality. A business operation plan that gets into the details of who will do what and when is suited to those with this preference, as is a case study or a working example of what is intended or proposed.

The Myers-Briggs Type Indicator People are classified on the Myers-Briggs Type Indicator (MBTI) according to their preferences on four scales derived from Jung’s Theory of Psychological Types: Extraverts (try things out, focus on the outer world of people) or introverts (think things through, focus on the inner world of ideas). Sensors (practical, detail-oriented, focus on facts and procedures) or intuitors (imaginative, concept-oriented, focus on meanings and possibilities). Thinkers (skeptical, tend to make decisions based on logic and rules) or feelers (appreciative, tend to make decisions based on personal and humanistic considerations). Judgers (set and follow agendas, seek closure even with incomplete data) or perceivers (adapt to changing circumstances, postpone reaching closure to obtain more data). Lawrence characterizes the preferences, strengths, and weaknesses of each of the 16 MBTI types in many areas of student functioning and offers numerous suggestions for addressing the learning needs of students of all types (Jenson, 1987).

Kolb’s Experiential Learning Model In Kolb’s model, students are classified as having a preference for concrete experience or abstract conceptualization (how they take information in)

and (b) active experimentation or reflective observation (how they process information). The four types of learners in this classification scheme are:

Type 1 (concrete, reflective)—the diverger. Type 1 learners respond well to explanations of how course material relates to their experience, interests, and future careers. Their characteristic question is “Why?” To be effective with Type 1 students, the instructor should function as a motivator.

Type 2 (abstract, reflective)—the assimilator. Type 2 learners respond to information presented in an organized, logical fashion and benefit if they are given time for reflection. Their characteristic question is “What?” To be effective, the instructor should function as an expert.

Type 3 (abstract, active)—the converger. Type 3 learners respond to having opportunities to work actively on well defined tasks and to learn by trial-and-error in an environment that allows them to fail safely. Their characteristic question is “How?” To be effective, the instructor should function as a coach, providing guided practice and feedback in the methods being taught.

Type 4 (concrete, active)—the accommodator. Type 4 learners like applying course material in new situations to solve real problems. Their characteristic question is “What if?” To be effective, the instructor should pose open-ended questions and then get out of the way, maximizing opportunities for the students to discover things for themselves. Problem-based learning is an ideal pedagogical strategy for these students. Preferences on this scale are assessed with the Learning Style Inventory® (McBer and Company, Boston) or the Learning Type Measure® (About Learning Inc., Wauconda, Ill.).

The Felder-Silverman Model Model Categories. According to a model developed by Felder and Silverman [13, 32], a student’s learning style may be defined by the answers to four questions:

1. What type of information does the student preferentially perceive: sensory (sights, sounds, physical sensations) or intuitive (memories, thoughts, insights)? Sensing learners tend to be concrete, practical, methodical, and oriented toward facts and hands-on procedures. Intuitive learners are more comfortable with abstractions (theories, mathematical models) and are more likely to be rapid and innovative problem solvers [47]. This scale is identical to the

sensing-intuitive scale of the Myers-Briggs Type Indicator.

2. What type of sensory information is most effectively perceived: visual (pictures, diagrams, flow charts, demonstrations) or verbal (written and spoken explanations)?

3. How does the student prefer to process information: actively (through engagement in physical activity or discussion) or reflectively (through introspection)? This scale is identical to the active-reflective scale of the Kolb model and is related to the extravert-introvert scale of the MBTI.

4. How does the student characteristically progress toward understanding: sequentially (in a logical progression of incremental steps) or globally (in large “big picture” jumps)? Sequential learners tend to think in a linear manner and are able to function with only partial understanding of material they have been taught. Global learners think in a systems-oriented manner, and may have trouble applying new material until they fully understand it and see how it relates to material they already know about and understand. Once they grasp the big picture, however, their holistic perspective enables them to see innovative solutions to problems that sequential learners might take much longer to reach, if they get there at all [48]. More detailed descriptions of the attributes of the different model categories and the nature and consequences of learning and

teaching style mismatches are given by Felder and Silverman [13] and Felder [32]. Zywno and Waalen [36] report on the development and successful implementation of hypermedia instruction designed to address the learning needs of styles less favored by traditional instruction, and Sharp [40] describes an instructional module based on the Felder-Silverman model that makes students aware of differences in learning styles and how they may affect personal interactions, teamwork, interactions with professors, and learning difficulties and successes.

3. Do Teachers Teach the Way They've Been Taught or The Way They Learn Best?

Felder's identification of learning and teaching styles in the classroom (1993), and Soloman's inventory of learning styles (1992) offer their research as a tool for both educators and students. Research supports the concept that most teachers teach the way they learn. (Stitt-Gohdes 2001, p. 136; Reid, 1995 and Randolpf, 1979). Since a great many teachers have experienced academic success in learning environments that were instructor centered and relied heavily on lecture, it is understandable that their preferred style of teaching, at least initially, would be to repeat what worked with them. Typically these teachers are field independent, that is, they are more content oriented and prefer to use more formal teaching methods, favoring less student involvement and more structured class activities (Hayes and Allinson 1997; Pithers 2001). This style works especially well for field-dependent students who want to be told what they should learn and given the resources to acquire the specified body of knowledge or skills. This may be why most training is provided through instructor-led classrooms in the corporate environment (Caudron, 2000). This strategy can be effective when employees are highly motivated to learn specific content that is relevant to their careers. However, instructor-centered training is not as effective when training involves context the physical, emotional, and intellectual environment that surrounds an experience and gives it meaning (Ibid., p. 55; Doria and oth. 2003).

One reason instructors are led to teach the way they learn is that they are not skilled in adult learning theory. This is especially true for trainers who have little education about and understanding of adult learning principles. Classroom teachers who are skilled in adult learning principles and have experience with theories about student-centered learning and constructivism are more likely to adopt student-centered instruction (Stitt-Gohdes, Crews, and McCannon 1999), even if it is not the way they learned or prefer to learn. These teachers have broad views of how teaching can occur and strong beliefs about the need to engage learners in the learning process. They are aware of the changing demographics of classrooms and the influence of technology on students ways of learning (Glenn, 2000; Stitt-Gohdes 2003). They are more likely to substitute self-directed learning opportunities and interactive learning environments for the traditional lecture and make use of varied resources to create personally meaningful educational experiences (Glenn, 2000, p. 14, Quenk, 2000). Recent studies show that the majority of teachers teach the way they learn. Since many teachers have experienced an academic success in learning environments that were instructor-centered and relied heavily on lecture, it is understandable that their preferred style of teaching would be to repeat what worked with them. These teachers are field independent, that is, they are more content oriented and prefer to use more formal teaching methods, favoring less student involvement and more structured class activities. But according to current knowledge about learning psychology methods of the student can easily be differentiate. This strategy can be effective when employees are highly motivated to learn specific content that is relevant to their careers. However, instructor-centered training is not effective for all students.

4. Methodology/ Research Design

The study uses a survey type research design. The advantages of surveys lies in their ability to collect data from a large sample, and when the research aim is clear and administered seriously, surveys can be a feasible valid and reliable research instrument in obtaining respondents' feedback (Laight, 2004; Hatch & Lazaraton, 1991; Greiner, and oth. 2003). Main research problem of this current study is that students have different learning styles which does not match with their teachers and gender is a differentiate impact on learning styles. Target population of the research which consists of 140 students and 13 professors enrolled at Toros University in Mersin, Turkey. Random sampling technique is used (Fraenkel & Wallen, 2006). Fleming's (2001) VARK instrument is used in this study as a means to identify student's learning in four styles (visual, aural, read&write, kinesthetic). It is a user-friendly instrument that consists of 16 randomly ordered statements for four learning styles. As this research focuses on the learning styles of the business students, VARK survey kit had been chosen as a reliable and valid instrument to gather data about the participants' learning styles. Respondents self report their preferences for specific learning style.

4.1 Research Problem

One of most comprehensive research conducted by Loo (2002) with business students. While business educators are experts in their own field, they may lack a complete theoretical understanding of teaching and learning styles Felder (1993; Grasha, 1996). Studies show that people teach the way they learn specially those teachers who didn't improve teaching styles and has not aware of learning styles. So one main reason teachers are led to teach the way they learn is that they are not skilled in adult learning theory. This is particularly true for trainers who have little education about and understanding of adult learning principles. So it is assumed that teachers who are skilled in adult learning principles and have experience with theories about student-centered learning and constructivism are more likely to adopt student-centered instruction, even if it is not the way they learned or prefer to learn. These teachers have broad views of how teaching can occur and strong beliefs about the need to engage learners in the learning process. They are aware of the changing demographics of classrooms and the influence of technology on students' ways of learning. Those kind of teachers more likely to substitute self- directed learning opportunities and interactive learning environments for the traditional lecture and make use of varied resources to create personally meaningful educational experiences (Grasha and Riechmann, 2006; Soloman, 1992; Farwell, 2002). So it can be sum up as 3 major findings feed this current study: They are as follows; all students have their own learning styles, people teach the way they learn, a mismatch between learning styles causes learning failure. Based on existed literature it is assumed that most of the teacher at the Toros University, teach the way they learn. The research problem of the study is to understand is there a match or mismatch between teacher and student. The result of the study will help to improve better teaching and learning experiences and methods.

4.2 Preference in Learning Styles

Descriptive statistics were computed using frequency distributions of the variables, the 16 questions on learning methods with four different option (visual, aural, read&write, kinesthetic). The participants of this study were 153 people, 140 students and 13 teachers of Business and Administration department at the Toros University. They were 73 female and 76 male. Students' age between 18 and 25 years of age. 16 questions with four alternatives were distributed to

students. Through the processes of test administration, it was indicated that about 54% of the students preferred visual learning style, 35% of the students' preferred kinesthetic learning style, and only 6% of the students preferred read&write and 5% of the students prefer aural style to learn. For the teachers analysis have a different result such as, %50 of the professors at the department prefer read and write as learning style, %28 kinesthetic and %22 of them preferred visual style. To understand the relationship between gender and learning styles, Chi square test were used. Result of the analysis show that there is no significant differentiation according to gender for none of the variables. Main research problem of the research was to understand the differentiation between student and teacher. To examine this question, chi square test were run with the data test. Analysis show that except from variable 1 (about how to explain address to one), variable 8 (about get a medical help from specialist), variable 14 (about preferred way of feedback) there is significant differentiation between student and teachers.

5. SUMMARY

Despite there were unbalanced and low number of participants there is still very important result found that needs to be highlighted. The identified preferred teachers' teaching/learning were did not matched with the students' learning styles. A major proportion, 50%, of the teachers exhibited a preference for read&write, %28 kinesthetic, and %22 visual learning styles. The results of this study are very different from Gilakjani (2012), De Vita, (2001) and Peacock's (2001). In those research most of the teacher preferred kinesthetic, group and auditory learning styles. But because of the cultural differences it is not compare just by occupation. Difference could be traced to cultural difference which needs to be investigated in future studies. It could also be attributed to the teaching methodology whereby teachers mostly follow the traditional practice of heavy emphasis on class lecturing and rote memorization. However, future studies would do well to investigate such practices according to learning styles. The major results showed that Turkish students have a preference for visual and kinesthetic learning styles; that is, preference for multiple learning styles. The second major finding is that although Turkish males and females have similar preferences so gender is not a impact factor for learning preferences. Another major finding and on which the research was generated is that there is no match between the students and teachers for learning styles. This is considered as an important finding which has implications for the teaching/learning situation in business classrooms. It is left for future research to confirm findings in the field that a mismatch between teachers and students in learning styles may negatively affect student achievement.

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