

## Paper title: The Effect of Visual, Auditory, and Kinaesthetic Learning Styles on Language Teaching

Abbas Pourhossein Gilakjani  
School of Educational Studies, USM, Malaysia  
Pinang, Malaysia  
e-mail: [abbas.pourhossein@yahoo.com](mailto:abbas.pourhossein@yahoo.com)

Seyedeh Masoumeh Ahmadi  
School of Languages, Literacy, and  
Translation, USM, Malaysia  
Pinang, Malaysia  
e-mail: [s\\_m\\_a57@yahoo.com](mailto:s_m_a57@yahoo.com)

**Abstract**—The ability to understand student learning styles can increase the educational experience. Teachers might adjust their teaching style so that it is more congruent with a given student's or class of students' learning style. One of the most important uses of learning styles is that it makes it easy for teachers to incorporate them into their teaching. There are different learning styles. Three of the most popular ones are visual, auditory, and kinaesthetic in which students take in information. Some students are visual learners, while others are auditory or kinaesthetic learners. While students use all of their senses to take in information, they seem to have preferences in how they learn best. In order to help students learn, teachers need to teach as many of these preferences as possible. Teachers can incorporate these learning styles in their curriculum activities so that students are able to succeed in their classes. This study is an analysis of learning styles for Iranian EFL students. The purpose of this study is to increase faculty awareness and understanding of the effect of learning styles on the teaching process. A review of the literature along with analysis of the data will determine how learning styles affect the teaching process.

**Keywords:** Learning styles, auditory, visual, kinaesthetic, effective teaching

### I. INTRODUCTION

Students learn best by seeing the value and importance of the information presented in the classroom. If the students are not interested in the material presented, they will not learn it. In order to achieve the ultimate goal of student learning it is important to use a combination of teaching methods and to make the classroom environment as stimulating and interactive as possible. Students learn in many different ways. Some students are visual learners, while others are auditory or kinaesthetic learners. Visual learners learn visually by means of charts, graphs, and pictures. Auditory learners learn by listening to lectures and reading. Kinaesthetic learners learn by doing. Students can prefer one, two, or three learning styles. Because of these different learning styles, it is important for teachers to incorporate in their curriculum activities related to each of these learning styles so that all students are able to succeed in their classes. While we use all of our senses to take in information, we each seem to have preferences in how we learn best. In order to help all students learn, we need to teach as many of these preferences as possible (Cuaresma, 2008). When we think about a typical university course, it is rare to find all three of these

approaches to learning incorporated into a class. While it may seem impossible to do this, it can be done through thoughtful planning and preparation. It does force us to conceptualize the class differently—with a focus on the variety of ways in which students learn. The various inventories on learning styles allow teachers to gain insight into which areas they can use further development in and which are already well developed (Cuaresma, 2008). In this paper, the researchers discuss the definition of learning styles, general learning styles, previous researches about visual, auditory, and kinaesthetic learning styles. Then, the applications of learning styles in the classroom, importance of learning styles, the advantages of identifying learning styles will be discussed.

### II. TOWARDS THE DEFINITION OF LEARNING STYLES

Learning styles may be defined in multiple ways, depending upon one's perspective. Here are a few definitions of learning styles. Brown (2000) defines learning styles as the manner in which individuals perceive and process information in learning situations. He argues that learning style preference is one aspect of learning style, and refers to the choice of one learning situation or condition over another. Celcia-Murcia (2001) defines learning styles as the general approaches—for example, global or analytic, auditory or visual—that students use in acquiring a new language or in learning any other subject. The manner in which a learner perceives, interacts with, and responds to the learning environment. Learning style is sometimes defined as the characteristic cognitive, affective, social, and physiological behaviors that serve as relatively stable indicators of how learners perceive, interact with, and respond to the learning environment" (MacKeracher, 2004, p. 71).

### III. GENERAL LEARNING STYLES

There are three main learning styles; visual, auditory, and kinaesthetic. The definitions of these learning styles are as follows:

#### A. Visual

Visual learners think in pictures and learn best in visual images. They depend on the instructor's or facilitator's non-verbal cues such as body language to help with understanding. Sometimes, visual learners favour sitting in the front of the classroom. They also take descriptive notes over the material being presented (Ldpride, n.d.).

#### B. Auditory

These individuals discover information through listening and interpreting information by the means of pitch, emphasis and speed. These individuals gain knowledge from reading out loud in the classroom and may not have a full understanding of information that is written (Ldpride,n.d.).

#### C. *Kinaesthetic Learner*

Individuals that are kinaesthetic learn best with an active “hands-on” approach. These learners favour interaction with the physical world. Most of the time kinaesthetic learners have a difficult time staying on target and can become unfocused effortlessly (Ldpride,n.d.).

#### IV. VISUAL, AUDITORY, AND KINAESTHETIC LEARNING STYLES

According to Dunn and Dunn (1978), only 20-30% of school age children appear to be auditory learners, 40% are visual learners, and 30-40% are tactile/kinaesthetic or visual/tactile learners. Barbe and Milone (1981) stated that for grade school children the most frequent modality strengths are visual (30%) or mixed (30%), followed by auditory (25%), and then by kinaesthetic (15%). Price, Dunn, and Sanders (1980) found that very young children are the most tactile/kinesthetic, that there is a gradual development of visual strengths through the elementary grades, and that only in fifth or sixth grade can most youngsters learn and retain information through the auditory sense. Carbo (1983), investigating the perceptual styles of readers, found that good readers prefer to learn through their visual and auditory senses, while poor readers have a stronger preference for tactile and kinesthetic learning.

Previous studies into the learning styles of EFL students have generally reported that they favor Kinesthetic and Tactile styles, and disfavor Group styles. Reid (1987) reports that Chinese university students (N = 90) studying in the USA favored Kinesthetic and Tactile styles, and disfavored Group styles. Melton (1990) found that Chinese (PRC) university students (N = 331) favored Kinesthetic, Tactile and Individual styles, and disfavored Group styles. Jones (1997) states that his Chinese (Taiwan) university students (N = 81) favored Kinesthetic and Tactile styles, and disfavored Individual styles. Two empirical studies that investigated non-Chinese EFL students based on Reid's typology are Rossi-Le (1995) and Hyland (1993). Rossi-Le surveyed adult L2 immigrants in the US. They favored Kinesthetic and Tactile styles and did not disfavor any styles. Hyland's Japanese learners favored Auditory and Tactile styles, and disfavored Visual and Group styles (1993). Hyland also reports that senior students favored kinesthetic styles. In their research, Kia, Alipour, and Ghaderi (2001) found that among students in Payame Noor University in Iran, those with visual learning style have the greatest academic achievement. Peacock (2001) has examined the learning style preferences of EFL and ESL students. The results of these studies show that students prefer kinaesthetic learning styles above others, whereas the teaching methods mostly suit auditory learners.

#### V. APPLICATIONS OF LEARNING STYLES IN THE CLASSROOM

Various researchers have attempted to provide ways in which learning styles can take effect in the classroom. Two such scholars are Dr. Rita Dunn and Dr. Kenneth Dunn (1978). Dunn and Dunn write that “learners are affected by their: (1) immediate environment (sound, light, temperature, and design); (2) own emotionality (motivation, persistence, responsibility, and need for structure or flexibility); (3) sociological needs (self, pair, peers, team, adult, or varied); and (4) physical needs (perceptual strengths, intake, time, and mobility)” (Dunn & Dunn, 1978). They claim that not only can students identify their preferred learning styles, but that students also score higher on tests, have better attitudes, and are more efficient if they are taught in ways to which they can more easily relate. Therefore, it is to the educator's advantage to teach and test students in their preferred styles (Dunn & Dunn, 1978). Although learning styles will inevitably differ among students in the classroom, Dunn and Dunn say that teachers should try to make changes in their classroom that will be beneficial to every learning style. Some of these changes include room redesign, the development of small-group techniques, and the development of Contract Activity Packages. Redesigning the classroom involves locating dividers that can be used to arrange the room creatively, clearing the floor area, and incorporating student thoughts and ideas into the design of the classroom (Dunn & Dunn, 1978). Small-group techniques often include a “circle of knowledge” in which students sit in a circle and discuss a subject collaboratively as well as other techniques such as team learning and brainstorming. Contract Activity Packages are educational plans that facilitate learning by using the following elements: 1) clear statement of what the students need to learn; 2) multisensory resources (auditory, visual, tactile, kinaesthetic) that teach the required information; 3) activities through which the newly-mastered information can be used creatively; 4) the sharing of creative projects within small groups of classmates; 5) at least 3 small-group techniques; 6) a pre-test, a self-test, and a post-test (Dunn & Dunn, 1978).

#### VI. IMPORTANCE OF LEARNING STYLES

One of the most significant issues in learning to learn is an individual's taking the responsibility for his/her own learning. The individuals should know what their own learning styles are and what characteristics this style has and they should thereby behave according to this style. In this way, the individual can acquire the constantly changing and increasing amount of information without need for the assistance of others. When the learner takes the responsibility of his/her own learning, s/he attributes meaning to the process of learning. S/he develops an understanding of his/her own form of learning style and becomes much more satisfied with the environment s/he interacts with. Every opportunity for learning is a chance for him/her. It is in the learner's hand to use different ways and develop the learning styles to some extent (Coffield, 2004).

Learning style is important for many reasons; however, there are three vital ones. First of all, people's learning styles will vary because everyone is different from one another naturally. Secondly, it offers the opportunity to teach by using a wide range of methods in an effective way. Sticking to just one model unthinkingly will create a monotonous learning environment, so not everyone will enjoy the lesson. In other words, learning and teaching will be just words and not rooted in reality. Thirdly, we can manage many things in education and communication if we really recognize the groups we are called to. Of course, we may not know every detail; however, being aware of our students' learning styles, psychological qualities and motivational differences will help us regulate our lessons appropriately and according to the conditions (Mc Carthy, 1982; Felder, Silverman, 1988; Coffield et al., 2004).

#### VII. THE ADVANTAGES OF IDENTIFYING LEARNING STYLES

Learning style has an important place in the lives of individuals. When the individual knows his/her learning style, s/he will integrate it in the process of learning so s/he will learn more easily and fast and will be successful. Another advantage of the identification of the own learning style by the student is that it will help the student to become an effective problem solver. The more successful the individual is at solving the problems s/he faces, the more control s/he will take over his/her own life (Biggs, 2001). It is important that individuals receive education in areas suitable for their learning styles. A person educated in an area having no relationship to his/her learning style may lack confidence and s/he may be less successful; s/he may as a result become frustrated. Knowledge of learning style also provides information to the student as to why s/he has learnt in a different way than others. It helps to control the process of learning. It is vital because one of the most important signals in learning is to learn to be autonomous, that is, for the individual to take responsibility for his/her own learning. Because of this, s/he should know what learning style is. This has to be part of the learning process to enable the individual to obtain knowledge, which constantly shifts and changes, without any help from others. Briefly, confidence in learning will consistently rise when learners know how to learn. Learning to learn and grasping knowledge in a suitable manner will lessen the need for an overbearing control by teachers. At this point, teachers guide the students. The students take responsibility for their learning, they are at the centre of the process and everything is under their control. They search answers to the problems and benefit from their unique performances and preferences in their learning styles. Those people will identify their aims, unlike those whose learning style preferences are not identified. They know what they want to learn and "how." This awareness will change their perspectives on learning new things (Fidan, 1986).

#### VIII. CONCLUSION

A better knowledge and understanding of learning styles may become important as classroom sizes

increase and as technological advances continue to mold the types of students entering higher education. While research in this area continues to grow, teachers should make concentrated efforts to teach in a multi-style fashion that both reaches the greatest extent of students in a given class and challenges all students to grow as learners. It is very important to understand and explore each individual's learning style. Analyzing one's own particular learning style can be very helpful and beneficial to the student by aiding them in becoming more focused on an attentive learner, which ultimately will increase educational success. Discovering this learning style will allow the student to determine his or her own personal strengths and weaknesses and learn from them. Teachers can incorporate learning styles into their classroom by identifying the learning styles of each of their students, matching teaching style to learning style for difficult tasks, strengthening weaker learning styles through easier tasks and drill, and teaching students, learning-style selection strategies. It is important for students to have multiple learning opportunities and "learning style-shift" and teachers should achieve a match between teaching strategies and the students' unique learning styles. Accommodating teaching to learning styles improves students' overall learning results, increases both motivation and efficiency and enables a positive attitude towards the language being learned. The purpose of using learning styles is to find the best ways for both students to learn effectively and teachers to teach efficiently.

#### ACKNOWLEDGMENT

We thank Alizadeh, Ahmadi, Babaei, and Khazaei for their extensive discussions.

#### REFERENCES

- [1] W. B. Barbe, M. N. Milone, "What we know about modality strengths," *Educational Leadership*, 38 (5), 1981, pp. 378-380.
- [2] J. Biggs, "Enhancing Learning: A Matter of Style or Approach? In: Perspectives on Thinking, Learning and Cognitive Styles, R. J. Sternberg, L. F. Zhang (Eds.). Mahwah, Lawrence Erlbaum Associates, N. J., ISBN: 0-8058-3431-1, 2001, p. 276.
- [3] H. D. Brown, "Principles of language teaching and learning," (4th ed.). White Plains, NY: Longman, 2000.
- [4] M. Carbo, "Research in reading and learning style: Implications for exceptional children," *Exceptional Children*, 1983, 49, pp. 486-494.
- [5] M. Celce-Marcia, "Teaching English as a second or foreign language," (3rd ed.). Dewey Publishing Services: NY, 2001.
- [6] F. Coffield, "Learning Styles and Pedagogy in Post-16 Learning," A Systematic and Critical Review. Learning and Skills Research Centre, London, ISBN: 1853389188 9781853389184, 2004.
- [7] J. Cuaresma, "Learning style preferences and academic performance of PHEM majors at the University of the Cordilleras," Unpublished Undergraduate Thesis. University of the Cordilleras, Baguio City, 2008.

- [8] R. Dunn, K. Dunn, "Teaching Students through their Individual Learning Styles," A Practical Approach. Prentice Hall, Reston, VA., ISBN: 10: 0879098082, 1978, p. 336.
- [9] R. M. Felder, L. K. Silverman, "Learning and teaching styles in engineering education," *Eng. Educ.*, 1988, 78: 674-681. ERICExtSearch\_SearchValue\_0=EJ372622&ERICxtSearch\_SearchType\_0=no&accno=EJ372622
- [10] N. Fidan, "Learning and Teaching at School, Concepts, Principles, Methods," Ankara: Publication. ISBN: 975-337-043-1, 1986.
- [11] K. Hyland, "Culture and learning: a study of the learning style preferences of Japanese students," *RELC Journal*, 24 (2), 1993, pp. 69-91.
- [12] LdPride. (n.d.), "What are learning styles?" Retrieved from <http://www.ldpride.net/learningstyles.MI.htm> on October 17, 2009.
- [13] N. B. Jones, "Applying learning styles research to improve writing instruction," Paper presented at RELC Seminar on Learners and Language Learning, Singapore, April, 1997.
- [14] M. Kia, A. Alipour and E. Ghaderi, "Study of learning styles on their roles in the academic Achievement of the students of Payame Noor University," [http://tojde.andolu.edu.tr/tojde\\_34/notes](http://tojde.andolu.edu.tr/tojde_34/notes), Retrieved June 11, 2009.
- [15] D. MacKeracher, "Making sense of adult learning," (2nd ed.). Canada: University of Toronto Press Incorporated, 2004.
- [16] B. McCarthy, "Improving staff development through CBAM and 4MAT," *Educ. Leadership*, 1982, 40, pp. 20-25.
- [17] C. D. Melton, "Bridging the cultural gap: a study of Chinese students' learning style preferences," *RELC Journal* 21 (1), 1990, pp. 29-54.
- [18] M. Peacock, "Match or mismatch? Learning styles and teaching styles in EFL," *International Journal of Applied Linguistics*, 11 (1), 2001, pp. 1-20. Plains, NY: Longman.
- [19] G. E. Price, R. Dunn and W. Sanders, "Reading achievement and learning style characteristics," *The Clearing House*, 5, 1980, 223-226. Publication. ISBN: 975-337-043-1.
- [20] J. M. Reid, "The learning style preferences of ESL students," *TESOL Quarterly* 21 (1), 1987, pp. 87-111.
- [21] L. Rossi-Le, "Learning styles and strategies in adult immigrant ESL students," In J.M. Reid (ed.), *Learning styles in the ESL/EFL classroom*. Boston: Heinle and Heinle, 1995, pp. 119-25. [rtlets/recordDetails/detailmini.jsp?\\_nfpb=true&\\_](http://www.eric.gov/fulltext/recordDetails/detailmini.jsp?_nfpb=true&_rtlets/recordDetails/detailmini.jsp?_nfpb=true&_) ERICExtSearch\_SearchValue\_0=EJ372622&ERIC