

**A COMPARATIVE STUDY OF ETHNIC
STUDENTS' LEARNING STYLES IN LEARNING
BURMESE LANGUAGE AND THEIR
ACHIEVEMENT IN SELECTED SCHOOLS IN
PYIN OO LWIN, MANDALAY REGION,
MYANMAR**

La San¹

Yan Ye²

Abstract: The study aimed to investigate the perceptual learning style of ethnic students learning the Burmese language in selected schools and compare the ethnic student's achievement of learning the Burmese language according to their most preferred learning styles. This research was conducted in four selected schools in Pyin Oo Lwin, Mandalay Region, Myanmar. Participants were ethnic students in grade 11 who enrolled in the 2013 academic year. Instruments were *Reid's Perceptual Learning Styles Questionnaire* and students' demographic profiles. For the Burmese language achievement of grade 11 ethnic students' test scores were used. Descriptive statistics (frequency and percentage, mean, standard deviation), and One-Way Analysis of Variance (ANOVA) were used for data analysis. Findings revealed that the most preference learning style among the students is the tactile learning, followed by auditory, kinesthetic, and then individual and group learning style. However, none preferred visual learning style. Regarding the difference of their most preferred learning styles, there was no significant difference among grade 11 ethnic students' achievement of learning Burmese language according to their most preferred learning styles.

Keywords: Learning Styles, Ethnic Students' Learning, Burmese Language Learning, Language Achievement

Introduction

Myanmar has eight major national ethnic races groups including Kachin, Kaya, Kayin, Chin, Mon, Bamar, Rakhine, Shan. In these eight major national ethnic areas there are 135 diverse ethnic groups. In central Myanmar and cities, public schools, private schools and monastic schools use Burmese language as the medium of instruction, since Myanmar has rich of diverse culture and ethnic groups. The Burmese language is a compulsory subject for all Myanmar students from grade 1 to 11. Current Myanmar schools textbooks are designed for Burmese students who speak Burmese as their mother language. Burmese language is second language for all

the ethnic students. Their mother language is not Burmese and they were not encouraged to schools in central Myanmar and cities. They suffered due to their limited Burmese language skill in studying and interaction with their classmates and teachers. It discourages them and lets them feel difficult in learning Burmese language and need to take extra classes after public schools.

Students learn in different ways according to intelligences, interests, readiness, and modes of learning, speed of learning, and self awareness as a learner. Some of the students that like innovation and activities, immerse themselves in experiences, and like to work in groups in order to share and test ideas. Some may like to collect information as much as possible, analyze it and make decisions first, eager to look before they leap. Some students love to observe, adapt, and integrate their observations into frame-works. They love to make question and assessment on new information with possible ways adding new information into existing frame-works. They love to seek out, use and apply to practical and real problems. Some learners have good visual skills and prefer to learn by seeing visual presentations. They learn effectively by seeing forms such as, diagrams, graphs, maps, posters, and pictures. Some students have good auditory memory and prefer to learn by listening. They learn best when it has been explained to them orally. Some students learn best using their bodies and prefer to learn with physical activities, field trips, and practical lessons (Pritchard, 2005).

Many students have different intelligences, but the teachers do not provide differentiated instructions and the teaching styles are not match with student's intelligences. They struggle in school and give up, doubting their own capacities (Hoerr, 2000). Dunn stated that differentiated instruction is one of the most important educational issues in order to fit with learners' variances (Dunn, Honigsfeld, & Doolan, 2009). Many educators realized that each learner is different, have different learning styles, different abilities, and skills. Successful learning is more likely happen when the educators value, respect variance of students and integrate it in teaching and learning process (McCombs & Miller, 2007).

The aim of differentiated instruction is to respond students' differences by providing different ways of teaching to support each student in order to understand the essential content. Differentiated instruction is based on the belief that students learn at high level when the instruction and their variation meet together (Tomlinson, 2010).

Understanding students' different learning styles help educators to plan instruction for different students. It helps ensure specific plans so that all different students

¹ M.Ed. Candidate in Educational Administration, Graduate School of Education, Assumption University, Thailand
lamungster@gmail.com

² Ph.D., Director of Educational Research, Statistics and Measurement Center, Graduate School of Education, Assumption University, Thailand.
norayeyan723@hotmail.com

get important and key content and helps to manage classroom flexible with the student variance. Each student variance is worth of dignity and respect. It provides equal learning opportunities to all different learners.

Objectives

There are two objectives:

1. To investigate the preferred learning styles of ethnic students learning Burmese language in selected schools in Pyin Oo Lwin, Mandalay Region, Myanmar.
2. To compare the ethnic student's achievement of learning Burmese language according to their most preferred learning styles.

Literature Review

In this study, ethnic students refer to the students those whose mother language is not Burmese such as, Kachin, Kaya, Kayin, Chin, Mon, Rakhai, and Shan.

Learning styles is a particular and preferred way an individual uses to gain skills and knowledge. Learning styles is habits, approaches, or regular mental behaviors when a person learns and applies new information and problem solving (Bennett, 2003). Learning styles is an approach that individual uses to make sense of new information and the way an individual use to perceive, process, store, and retrieve information and ideas (Grant & Sleeter, 1998).

Reid's perceptual learning style preferences model was based on the Dunn and Dunn learning style model. Dunn and Dunn learning style model integrate five aspects: environmental, emotional, sociological, physiological, and psychological factors. The Dunn and Dunn learning style was formed from four basic perceptual preferences: visual, auditory, kinesthetic, and tactile learning preferences. Reid (1984) added another two more categories to Dunn and Dunn's model: group and individual learning preferences. Dunn and Dunn classified group and individual learning preferences as sociological factors. According to Reid (1987) perceptual learning style is the characteristic of individual using different senses, natural, and habitual when individual retrieve and interact new information and new facts. Dunn and other researchers found out that very young children are primarily tactile and kinesthetic learners. In the fifth and sixth grade, their visual power develops and they gradually use auditory learning style to observe new information. (Price, Dunn, and Sanders, 1981, Keefe, 1978, as cited in Reid, 1987).

Before Reid's study of perceptual learning style preferences, most researchers had focused on cognitive styles and on conscious learning strategies in second language learning styles. Other studies investigated the importance of affective elements and cognitive styles in academic achievement. The other studies had focused on culture-specific modes. Researchers discovered that English as Second Language learners use different strategies in learning because they have different learning

styles, affective styles, and cognitive styles (Reid, 1987). Reid (1987) also stated that ESL students have differences of language, cultural backgrounds, age, and previous education. They come together in intensive English language classes in which they are taught by a teacher who has limited knowledge of their individual learning styles. Moreover, neither students nor teachers are aware of the frustration and difficulty that students might face because of their differences of individual, language, culture, and learning styles. Reid (1987) developed and studied perceptual learning style preferences of ESL students and provided information of individual differences, language, and cultural differences. It was useful for future research. There are six different categories of major learning styles in Reid's model.

Visual learners learn well by the visual channel or by presenting visually rather than listening to an oral explanation.

Auditory learners learn information effectively by hearing it.

Kinesthetic learners learn the more effectively when they get the more opportunities to involve physically in experiences.

Tactile learners learn best when they get chance to do hands-on experiences.

Group learners learn more easily and more successful completing work by working and learning with other classmates.

Individual learners learn best when they work on their own.

Reid did the perceptual learning style preferences survey with about 1300 ESL students who were learning in English language programs around the United States and she published the results in 1987. In her large-scale survey, the students' mother languages were Spanish, Japanese, Chinese, Korean, Arabic, Malay, Indonesian and Thai. There are three classified degrees of preference: major, minor, and negative. Major learning style refers to the strong preference of learners' learning style, the most use learning style, or the most successful style with which the learner learns. Minor learning style refers to the learning style that the learner could learn information well by using it. Negative or negligible learning style indicates that it made learning more difficult for the learner using this style (Reid, 1984, 1998a).

Reid's study data analysis showed that different mother language and different culture learners have different preferences of major, minor, and negative learning styles. Reid stated that learner's specific major field seemed to influence learner's preferred learning style. For instance, an engineering major learner had tactile learning style preferences and on the other hand, a science major learner preferred to learn by visual learning style. The data in the Reid study also indicated that ESL students adjust and expand their learning styles according to their learning environment in which they are studying. ESL students learning style preferences become more similar to a native English speaker as they stay longer in

the United States. Moreover, Reid suggested that practicing to use flexible learning styles and having ability to use various learning styles may help learners to study in the United States in the future for English as foreign language learners (Reid, 1998b).

Reid (1998) claimed that learning styles can be adapted and learned, and that learners' unaware learning styles could grow in to aware learning styles. The capability of using various learning styles could promote learning achievement and successful learning. Reid recommended that teachers not only carry out research in the class but also let students carry out research on their own learning style. As teachers and students research and develop more knowledge on different learning styles, they would benefit and experience more success in the learning process (Reid, 1998b).

The first well-known instrument purposely designed to assess the learning style of language learners was Reid's perceptual learning style preference questionnaire developed in 1984 (Cesur & Fer, 2009). After Reid developed the perceptual learning style preference questionnaire, there have been many researchers that have become interested in learning styles. Rebecca Oxford developed another instrument for learning styles known as Style Analysis Survey (SAS) in 1993 (Cesur & Fer, 2009). In 2001, Cohen, Oxford, and Chi developed the Learning Style Survey (LSS) instrument. It was based on SAS and the authors increased the quality of original instruments by adding several dimensions and focusing on language related subjects. LSS has 11 learning style dimensions, 23 subscales, and 110 question items (Cohen, Oxford, and Chi, 2001). Although, the LSS instrument has been widely used in studies on language learning and can investigate many aspects of students learning style, this study focus on perceptual preferences of the students. Therefore, the researcher decided to use Reid's perceptual preferences learning style preferences questionnaire.

Conceptual Framework

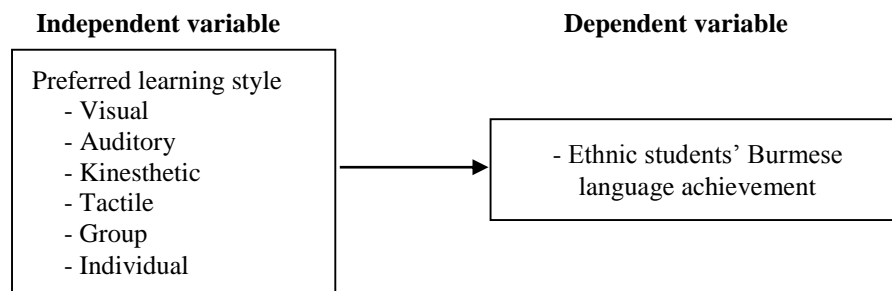


Figure 1: Conceptual Framework

Method

Participants

This study was conducted in grade 11 ethnic students learning Burmese language in four selected schools in Pyin Oo Lwin. The selected criteria for these four schools

were: First, they all are used the same Myanmar national curriculum with added moral or spiritual subjects. Second, they all are run by organizations as private in the same city of Pyin Oo Lwin. Third, they offer ethnic students to stay and learn in Pyin Oo Lwin. Fourth, they all have grade 11 ethnic students. The total number of participants were (n=70) grade 11 ethnic students learning Burmese language in four selected schools in Pyin Oo Lwin, Mandalay Region, Myanmar.

Instruments

The questionnaire had two parts. In part one, the researcher tried to identify demographics of grade 11 ethnic students and perceptual learning style preferences questionnaire developed by Reid (1984) was applied to identify the preferred learning style of grade 11 ethnic students. In part two, one set of Burmese language questionnaire was used to test the grade 11 ethnic students in order to find out the students' Burmese language scores.

There are 5 point likert scales in this questionnaire to find out the perception of ethnic students toward each statement. Rating of most preferred learning style were strongly disagree, disagree, undecided, agree, or strongly agree. The research firstly group the scores of each learning styles according to the question items, then computed the means and standard deviation for each learning style based on the replied data, the highest means was used to represent the most preferred learning style.

The *Perceptual Learning Styles Preference Questionnaire* (PLSPQ) was validated by the split-half method in past research (Reid, 1987). Renou (2008) stated that the PLSPQ generally had high reliability. Cheng investigated the reliability of the PLSPQ by doing one pilot study and the Cronbach's alpha was 0.81 (Cheng, 1997, as cited in Chen, 2009). The researcher carried out the reliability analysis of the Burmese version of the PLSPQ from the seventy set of the questionnaires and calculated by Cronbach's alpha coefficient. The value of Cronbach's Alpha of this study was .71. The researcher

used a government-standardized questionnaire to test ethnic grade 11 ethnic students for the Burmese language achievement. The content of the test was validated by the Myanmar Board of Examinations, in the Ministry of Education, Myanmar for over a decade.

Data collection

The research was conducted during the last week of September and in the first week of November, 2013 in four selected schools in Pyin Oo Lwin, Mandalay Region, Myanmar. The researcher distributed a total of 70 PLSPQ and tested Burmese language in four selected schools.

Data analysis

The researcher used descriptive statistics and one way ANOVA to analyze collected data from the questionnaire. For objective 1, means and standard deviation were used to determine the preferred learning style of the ethnic students. Frequencies and percentage were used to report preferred learning-style of the ethnic students in church-based schools. For objective 2, one way ANOVA was used to compare the ethnic student's achievements learning Burmese subject according to their most preferred learning styles.

Results

The returned questionnaires were 70 out of 70, the returned valid reached 100%. One-Way Analysis of Variance (ANOVA) was used to compare the ethnic student's achievement of learning Burmese language according to their most preferred learning styles.

Table 1: Comparing Grade 11 Ethnic Students' Burmese Language Achievement According to Their Most Preferred Learning Styles

Learning styles	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	703.290	4	175.822	.965	.433
Within Groups	11838.153	65	182.125		
<i>Total</i>	12541.443	69			

Table 2: Percentage of the Grade 11 Ethnic Students' Learning Styles

Learning Style	Frequency (Percentage)
Tactile	27
Auditory	23
Kinesthetic	23
Individual	17
Group	10
Visual	0
<i>Total</i>	100

The respondents as a whole (grade 11 ethnic students) 19 students (27%) preferred tactile learning style, 16 students (23%) preferred auditory, 16 students (23%) preferred kinesthetic, and then 12 students (17%) preferred individual and 7 students (10%) preferred group learning style. In addition, visual learning style was not found in the most preferred learning styles of grade 11 ethnic students. There was no significant differences Burmese language achievement among grade 11 ethnic students learning Burmese language according to their most preferred learning styles.

Discussion and Conclusion

In this study the respondents (grade 11 ethnic students) preferred tactile, auditory, kinesthetic, and then individual and group learning style. In addition, grade 11 ethnic students not preferred visual learning style. The 193 Arabic students that responded to Reid's survey had visual, auditory, kinesthetic, and tactile major learning styles and had group and individual minor learning styles. There was no negligible learning style among the Arabic students. The findings of this research also support the findings of Dunn and other researchers which stated that very young children are primarily tactile and kinesthetic learners. In the later grade, their visual power develops and they gradually use the auditory learning style to observe new information. (Price, Dunn, and Sanders, 1981, Keefe, 1978, as cited in Reid, 1987).

In this study, however, there was no visual learning style in the most preferred learning styles of grade 11 ethnic students while Arabic students preferred in Reid's survey. This difference might be due to the various factors such as, different languages taught (English and Burmese), different size of the samples from this study (193 and 70), learning environment, and instructional methods. Myanmar's educational system has totally relied on rote learning and students are expected to

memorize all the lessons. Teachers explain and dictate the lecture to the students and memorization is only way to prepare for the exams (Lwin, 2008). This kind of instructional method might be the most contributing factor to the different results. It might be due to the lack of visual instructions such as, power points, showing pictures and slide shows.

The study findings revealed that regarding to the most preferred learning styles such as, auditory, kinesthetic, tactile, group, and individual, there were no significant differences regarding the Burmese language achievement among the respondents. Grade 11 ethnic students preferred five out of six learning styles in this study. Reid conducted the survey on one hundred and thirty Japanese ESL students and they had no major learning style (Reid, 1987). This difference might be due to the differences in mother language, culture, instructional methods, and specific major fields. In addition, a different learning environment seemed to influence students' preferred learning styles.

The respondents of this current study also preferred tactile learning styles most and followed by auditory, kinesthetic learning style. There were individual and group learning style in the most preferred learning styles in this study while there were no individual and group learning style in Juris, Ramos, and Castaneda's study. This

difference might be due to the differences in culture, size of the samples from this study (254 and 70), and instructional methods. Juris, Ramos, and Castaneda (2009) explored the learning styles of students in the public and private schools of four cities in Colombia. Two hundred fifty-four students and 9 teachers participated in the study and the most preferred style was kinesthetic followed by tactile learning style and then auditory.

The finding of this study indicated that there was no significant difference Burmese language achievement among grade 11 ethnic students learning Burmese language according to their most preferred learning styles. In 2005 and 2006, Orhun and Orhun investigated the relationship between learning styles and achievements of Turkish students in Physics I and Calculus I in the Physics Department of Anadolu University. One hundred and forty two university students participated in their study. They applied Kolb's learning style inventory to collect the data. The result showed that there is a statistically significant difference in the Physics course achievement according to the students' different learning styles. On the other hand, there was no significant difference in the Calculus course achievement according to the students' different learning styles (Orhun and Orhun, 2005-2006). According to the different results, it can be assumed that students' achievement could be difference according to their preferred learning styles depending on specific major fields.

In the researcher findings, there was no significant difference in the Burmese language achievement among grade 11 ethnic students according to their most preferred learning styles. Damavandi (2011) investigated the impact of learning styles on the academic achievement of secondary school students in Iran. There were two hundred eighty five grade 10 students (56.5% male and 43.5% female) that participated in that study from eight governmental schools in Tehran, Iran. Damavandi used the mean of the English, mathematics, science, history and geography national standardized examinations' results as the academic achievement of the students. Kolb's learning styles model was applied in that study and the subjects were divided into diverging, converging, accommodating, and assimilating groups according to their learning styles. The results showed that accommodating and diverging learners were slightly less successful than converging and assimilating learners. The different result might be due to the differences in the subject areas (English, mathematics, science, history and geography and Burmese), the size of the samples from this study (285 and 70), and using the model from this study (Kolb's learning styles model and Reid's perceptual learning style preferences model).

The following conclusions are drawn from the findings of the study.

1. Grade 11 ethnic students learning Burmese language preferred tactile learning styles most followed by auditory, kinesthetic, and then individual and group

learning style. In addition, there was no visual learning style in the most preferred learning styles of respondents.

2. The learning Burmese language achievement of grade 11 ethnic students with different preferred styles was not significant difference.

References

- Alexander, B. (2009). *Understanding different learning styles that student use is essential for planning successful learning programs*. Retrieved from <http://www.classroom-management-success.org/different-learning-styles.html>
- Bennett, C. I. (2003). *Comprehensive Multicultural Education: Theory and Practice* (4th Ed.). Boston: Pearson Education, Inc.
- Brown, B.L. (2003). Teaching Style vs. Learning Style: *Do the Best learning Outcomes Occur When Teaching Style Matches Learning Style?* Retrieved from <http://www.calpro-online.org/eric/textonly/docgen.asp?tbl=mr&ID=117>
- Cesur, M. O. & Fer, S. (2009). What is validity and reliability study of learning style survey? *Journal of Theory and Practice in Education*, 5(2), 289-315. Retrieved from http://www.researchgate.net/publication/26842476_what_is_validity_and_reliability_study_of_learning_style_survey
- Chen, M. (2009). Influence of grade level on perceptual learning style preferences and language learning strategies of Taiwanese English as a foreign language learners. *Learning and Individual Differences*, 19, 304-308. Retrieved from <http://www.sciencedirect.com/science/article/pii/S1041608009000107>
- Cohen, A. D., Oxford, R. L., & Chi, J. C. (2001). *Learning style survey*. Retrieved from http://www.carla.umn.edu/maxsa/documents/LearningStyleSurvey_MAXS_A_IG.pdf
- Damavandi, A. J. (2011). Academic Achievement of Students with Different Learning Styles, *International Journal of Psychological Studies*; Vol. 3, No. 2 (December 2011) p. 186-192. Retrieved from <http://www.ccsenet.org/journal/index.php/ijps/article/download/13343/9209>
- Dornyei, Z., & Skehan, P. (2005). Individual differences in second language learning. In Doughty, C. J., & Long, M. H. (Eds.), *The Handbook of Second Language Acquisition*. Blackwell Publishing, Blackwell Reference Online, Retrieved from http://www.blackwellreference.com/public/tocnode?id=g9781405132817_chunk_g978140513281719
- Finely, S. R. (2000). The Relationship between Learning Styles/Multiple Intelligences and Academic Achievement of High School Students, *The High School Journal*; v.83, No.2 (Dec.1999/Jan.2000) p. 11.
- Garton, B. L., Spain, J. N., Lamberson, W. R., & Spiers, D. E. (1999). Learning Styles, Teaching Performance, and Student achievement: A Relational Study. *Journal of Agricultural Education*, 40 (3), 11-20. Retrieved from

- http://www.jaeonline.org/attach_ments/article/472/40-03-11LearningStylesTeaching.pdf
- Gardner, H. (1993). *Multiple Intelligences: The Theory in Practice*. New York: Basic Books
- Grant, C. A., & Sleeter, C. E. (1998). *Turning on Learning: Five Approaches for Multicultural Teaching Plans for Race, Class, Gender, and Disability (2nd ed.)*. New Jersey: Prentice-Hall, Inc
- Haggerty, B. A. (1995). *Nurturing Intelligences: A Guide to Multiple Intelligences Theory and Teaching*. New York: Addison-Wesley Publishing Company.
- Hoerr, T. R. (2000). Multiple Intelligences Theory: A New Way to Look at Students. *Instructional Leader*, 13(1), 6-10.
- Honey, P., & Mumford, A. (1986) *Manual of Learning Styles*. 2nd ed., London: P.
- Juris, M. F., Ramos, V. V & Casteneda, M. G. G. (2009). Learning and Teaching Crossroads, *Institute for Learning Styles Research Journal*, Vol. 1, Spring 2009. Retrieved from <http://www.auburn.edu/academic/education/ilsrj/archives.htm>
- Katsuda, C. (2012). *A Study of Learning Styles, Motivation for Learning, and Student Achievement among Thai Students Studying Japanese as a Foreign Language at King Mongkut's Institute of Technology, Ladkrabang, Thailand*. Unpublished Master's Thesis. Graduate School of Education. Assumption University.
- Kolb, D. A. (1984). *Experiential Learning: Experience as the Source of Learning and Development*. Englewood Cliffs, New Jersey: Prentice-Hall.
- Learning Style: the debate. Retrieved from http://www.brainboxx.co.uk/a2_learnstyles/pages/LStyle_s_debate.htm
- Levinsohn, R. K. (2007). Cultural Difference and Learning Styles of Chinese and European Trade Students. *Institute for Learning Styles Journal*, Vol. 1, Fall 2007. Retrieved from <http://www.auburn.edu/academic/education/ilsrj/archives.htm>
- Lwin, T. (2008). Education and Democracy in Burma: *An Overview of the Current State of Education and Suggestions for the Future*. Teacher Training Center for Burmese Teachers (TTBT), Chiang Mai, Thailand.
- Lynn Curry, L. (1990) A Critique of research on Learning Styles. Retrieved from http://www.ascd.org/ASCD/pdf/journals/ed_lead/el_199010_curry.pdf
- MacGilchrist, B., Myers, K., & Reed, J. (2004). *The Intelligent Schools (2nd ed.)*. New Delhi: SAGE Publications Ltd.
- Makhlouf, A. M. S., Witte, M. M., & Dahawy, B. M. A Comparison of Preferred Learning Styles between Vocational and Academic Secondary School Students in Egypt. *Institute for Learning Styles Research Journal*, Vol. 1, Spring 2012. Retrieved from <http://www.auburn.edu/academic/education/ilsrj/archives.htm>
- McCombs, B. L., & Miller, L. (2007). *Learner-Centered Classroom Practices and Assessments: Maximizing Student Motivation, Learning, and Achievement*. Thousand Oaks, CA: Corwin Press.
- Orhun, O., & Orhun, N. (2005-2006). *The Relationship between Learning Styles and Achievement in Physics Course and Calculus Course*. Retrieved from <http://academic.research.microsoft.com/Paper/10854816.aspx>
- Peacock, M. (2001). Match or Mismatch? Learning Theories and Learning Styles in EFL. *International Journal of Applied Linguistic*, 11 (1). 20.
- Pritchard, A. (2005). *Ways of Learning: Learning Theories and Learning Styles in the Classroom*. New York: David Fulton Publishers.
- Reid, J. M. (1984). Perceptual Learning- Style Preference Questionnaire. Retrieved from <http://lookingahead.heinle.com/filing/l-styles.htm>
- Reid, J. M. (1987). The Learning Style Preferences of ESL Students. *TESOL Quaterly*, 21 (1), 87-110. Retrieved from http://lwtoefl.ielp.pdx.edu/internal_resources/tutor/level_1_regular/Learning_Style_ESL%20%20Reid.pdf
- Reid, J. M. (1995). Preface. In Reid, J. (Ed.), *Learning Styles in the EFL/ESL Classroom*. (pp. viii-xvii). Boston: Heinle & Heinle Publisher.
- Reid, J. M. (1998a). Preface. In Reid, J. (Ed.), *Understanding Learning Styles in Second Language Classroom* (pp. ix-xiv). Upper Saddle River, New Jersey: Prentice-hall, Inc.
- Reid, J. M. (1998b). Teachers as Perceptual Learning Styles Researchers. In Reid, J. (Ed.), *Understanding Learning Styles in Second Language Classroom* (pp. 15-26). Upper Saddle River, New Jersey: Prentice-hall, Inc.
- Renou, J. (2008). A Study of Perceptual Learning Styles and Achievement in a University-Level Foreign Language Course. *Crisolenguas*, 1 (2). Retrieved from <http://www.crisolenguas.uprrp.edu/Articles/JanetRenou.pdf>
- Scott, C. (2010). The enduring appeal of 'learning styles.' *Australian Journal of Education*, 54, 5-17. Retrieved from <http://search.proquest.com/docview/325128276/fulltextPDF/134E64265FFD8F5010/1?accountid=50158>
- Silver, H. F., Strong, R. W., & Perini, M. J. (2000). *So Each May Learn: Integrating Learning Styles and Multiple Intelligences*. Alexandria, VA: ASCD.
- Tomlinson, C. A. (2010). On Excellence in Teaching. In R. Marzano (Ed.), *Differentiating Instruction in Response to Academically Diverse Student Populations* (pp. 247-286). Bloomington: Solution Tree Press.
- Wilson-Hull, S. L. (2008). The Impact of Learning Styles on High Stakes Testing: Perspectives from Mississippi Delta Area Teachers, *Institute for Learning Styles Research*, Vol. 1, Fall 2008. Retrieved from <http://www.auburn.edu/academic/education/ilsrj/archives.htm>