

# **EFFECTS OF ACCENTED VOICED INSTRUCTIONS ON SCHOOL STUDENTS' LEARNING ACHIEVEMENTS**

Muhammad Saeed  
Lecturer in English  
Govt. Degree College, Dir (U)  
[saeedjps@gmail.com](mailto:saeedjps@gmail.com)

Jameel Belader  
MD/Principal  
Jameel School & College  
Mingawara, Swat  
[saeedmuhd@yahoo.com](mailto:saeedmuhd@yahoo.com)

## **ABSTRACT**

The aim of the study is to investigate whether accent of a teacher affects the students' learning achievements. Mayer, Sobko, & Mautone (2003) believe that accented voices are not natural to native speakers of a language and which requires more cognitive resources to process the information and hence reduces the quality of students' learning experience. To test the validity of the assumption an experimental study was conducted in a private school in Mingawara, Swat. A fluent non-native Romanian Pashtu speaker who has already taught the subject of mathematics for four months to three different classes and at the end a comprehensive examination is conducted. The same classes were then taught by a native Pashtu speaker for the next term and a comprehensive examination was conducted at the end of the term. The results of both the terms were correlated and paired sample t-test was applied on the data. Based on the value of t-test which is  $-7.068$  the result is significant at the level of 0.05 to confirm the hypothesis that accent of the teacher affects learning achievements of the schools' students.

## **Keywords**

Accent of Teacher, Cognitive Load, Native/Non Native speakers, Learning Achievements

## **1. Introduction**

Cognitive load theory suggests that students can learn better in situations that are aligned with the cognitive architecture of the learners (Sweller, 1988). Short term memory has limitations regarding the number of elements the short term memory contains. Sweller (1988) believes that schema is the complex cognitive structure which is the combination of elements that permits an individual to think, perceive, and solve problems. The combination of these elements makes up a person's knowledge base.

Mayer, Sobko, & Mautone (2003) believe that accented voices are not natural to native speakers of a language and which requires more cognitive resources to process the information and hence reduces the quality of students' learning experience. Research on accent and listening comprehension and their interrelationship has mixed results. A study conducted by Brown (1968) shows that Twi & Ewe comprehended the speech of the speakers of English who shared their L1 (first language) better than to listen to the speech of native English speakers. Ekong (1982) also confirmed in his study that Nigerian

students scored higher when they listened to non-native speakers of English whose L1 was either Yoruba or Igbo. In another study Wilcox (1978) proves that Singaporean students comprehended the English spoken by native Singaporean speakers better than the speech of Native American, British and Australian speakers of English.

Moinzadeh, Rezaei&Dezhara (2012) also came up with the same results, they conducted an experimental study in Iran. In their study they asked a group of twenty two students to listen to a lecture by a Native American speaker of English and then answer listening comprehension questions. They then asked another group of twenty two students to listen to the same lecture read by the researcher himself who was a fluent Persian speaker of English. The second group was also given listening comprehension questions at the end. They compared the results of both the groups and found that the second group who listened to the non-native Persian speaker of English scored higher than the group that listened to the lecture by the Native American speaker of English.

While the students may not recognize the difference of accents, another part of the literature proposes that L2 learners are affected by accent. Tauroza and Luk (1985) compared two studies, by Smith and Bisazza (1982) and Ortmeyer and Boyle (1985), in which they found conflicting results on whether or not L2 (second language) learners comprehend more from a good local speaker of English or a native speaker of English. Smith and Bisazza purport their study of Chinese L2 learners demonstrates that the accent of native English speakers is comprehended better than that of local Chinese speakers of English. Conversely, in the same study, they found that sub-continental Indians understood native North American speakers of English better than they understood Indian speakers. However, because of the conflictual findings of each of these studies, Tauroza and Luk decided to replicate Ortmeyer and Boyle's study and tested secondary school students in Hong Kong to determine if a native accent or a model accent (the accent of their classroom teacher) had an effect on L2 listening comprehension. Their findings concluded that there was no difference in British accented English (the students' model accent) and Hong Kong accented English (local accented English) in their subjects' L2 listening success.

Ur (1984) is of the view that L2 learners have always problem in comprehending the speech of speakers with different accents, as they are accustomed with the accent of their language teachers to whom they listen a lot. If they hear an accent which does not match the accent of their language teacher/s, they are "surprised and dismayed when they find they have difficulty understanding someone else (p. 17)". The study of Ortmeyer and Boyle's (1985) agrees with the statement of Ur. The result of their study suggests that L2 learners have advantage in listening comprehension when they listen to listening text that matches their modal accent with which are accustomed to in the classroom whether native or non-native.

In another study Major et al (2002) came up with mixed results in their study. They studied four groups of 100 listeners whose L1 were Standard American, Spanish, Chinese and Japanese. Their results show that Spanish listeners scored lower while listening to Chinese accented English. In another study Major et al (2005) finds that ESL learners scored lower while listening to ethnic and international dialects of English than while listening to standard American English.

In Pakistan mostly the teachers at school level are local Pakistani they either speak the local language of the area they are teaching in or they speak Urdu which is a lingua franca in Pakistan and is commonly understood by all the students. In the present case which is rare in Pakistan and especially in Khyber Pukhtoonkhwa that a non-Pakistani national – a fluent non-native Romanian speaker of Pashto – is teaching at a private school in District Swat. The phenomenon needed investigation whether the students could learn from the non-native Pashto speaker – who spoke accented Pashto – like they learn from their native Pashto speaking teachers. For the purpose the following research question was set.

## 2. Research Questions:

1. Does accent of a teacher affect the learning outcome of the students?

## 3. Methodology

### 3.1 Participants

Participants in the study were 71 female students of grade five, six and seven at Jameel Girls School and College, Mingawara, Swat, KP. The medium of instructions for teaching the subject of mathematics at the school is Pashtu or Urdu. Since all the participants in the study were native Pashtu speakers, so mostly Pashtu was used by the teachers as medium of instructions for teaching the subject of mathematics in the classes.

Table 1: Participants in the study

Participants in the study				
Classes	Five	Six	Seven	Total
Number of students	30	27	14	71
	42%	38%	20%	100%

### 3.2 Instrument

Three classes were taught the subject of mathematics for two terms – four months each – by two teachers with ethnically different backgrounds. The results of both term exams were compared and paired t-test was applied.

### 3.3 Procedure

A female non-native Romanian speaker of Pashtu with good teaching background in mathematics was assigned the task of teaching mathematics to the students of grade five, six and seven. The teacher taught the subject of mathematics to the classes for one term and at the end a comprehensive examination was conducted.

The same three classes were then assigned to local native Pashtu speaker for teaching the subject of mathematics for the next term. The native Pashto speaker taught the subject for the next term and at the end of the term a comprehensive examination was conducted.

The results of both the term exams were correlated and paired sample t-test was applied on the data.

## 4. Results and discussion

The aim of study was find out the effects of teachers' accent on the academic performances of the students. For the purpose the following research question was set.

1. Does accent of the teacher affect the learning outcome of the students?

To answer the research question, two teachers of mathematics with ethnically different cultural background were assigned three classes for the teaching of mathematics. Each of the teachers taught the subject to the same classes for one term and at the end of each term a comprehensive examination was conducted in the subject. For data analysis SPSS was used. Means scores of both the tests, standard deviations and paired sample t-test were calculated.

Results of the first term examination indicate that the mean score of all the 71 students in the three classes was 69.9 and the standard deviation was 24.36 whereas the mean score of the students in the second term examination was 83.9 and the standard deviation was 16.64.

Table 2: Paired sample statistics

<b>Paired Samples Statistics</b>				
	<b>Mean</b>	<b>N</b>	<b>Std. Deviation</b>	<b>Std. Error Mean</b>
1 <sup>st</sup> Term (taught by Non Native Pashto Speaker)	69.9014	71	24.36400	2.89147
2 <sup>nd</sup> Term (taught by Native Pashto Speaker)	83.9155	71	16.64482	1.97538

Results of both the term examinations show that the mean score of the students increased from 69.9 to a mean score of 83.9 whereas the standard deviation in the first term examination reduced from 24.36 to 16.64 which is a good sign.

For obtaining more reliable values paired sample t-test was used by using SPSS version 16.

Table 3: Paired sample t-test

<b>Paired Sample t-test</b>								
	Mean	Std. Dev.	Std. Error Mean	95% Confidence Interval of the Difference		T	df	Sig. (2-tailed)
				Lower	Upper			
1 <sup>st</sup> Term – 2 <sup>nd</sup> Term	-1.40141E1	16.70714	1.98277	-17.96860	-10.05957	-7.068	70	.000

Based on the t-value obtained from the t-test which is  $-7.068$ , the result is significant at the level of 0.05 to confirm the hypothesis that the academic performance of the school students is affected negatively when the teacher gives instructions to the students in an accent which is not the accent of the students. The result also confirms the hypothesis that students perform better when the accent of the teacher in which s/he gives instructions and the accent of the students are the same. The results are supported by the findings of Smith & Bisazza (1982), Field (2008) and Moinzadeh et al (2012) that students understand the language of the teacher better who shares L1.

## 5. Conclusion

The results achieved through the experimental study show that accent of the teacher influences the understanding and learning achievements of the students. The accented teacher spoke in a phonological pattern which was different from the phonological pattern of the students. As a result when the students

listened to accented teachers these students were cautious about the accent of the teacher rather than focusing on the contents of the instructions or lecturer delivered,they focused consciously or unconsciously on the accent of the teacher and hence overtaxed their working memory which in turn affected their performance in the subject.

As the school students are not expert enough to cope with problem like this, the school administration must hire the teaching staff for school students who share the first language of the students. In cases when it is not possible for the school administration to hire the staff and they have to hire non-native teachers, the school administration should arrange accent reduction courses for the non-native teachers so that learning achievements of the students are not affected.

## References

- Brown, k. (1968). Intelligibility. Language testing symposium: a psycholinguistic approach, ed. By A. Davies, 180-191. London: O.P.U.
- Ekong, P. (1982). On the use of an indigenous model for teaching English in Nigeria. *World Language English, 1*, 87-92.
- Major, R., Fitzmaurice, S., Bunta, F., & Balasubramanian, C. (2002). The effects of nonnative accents on listening comprehension: Implications for ESL assessment. *TESOL Quarterly, 36*, 173-190.
- Major, R., Fitzmaurice, S., Bunta, F., & Balasubramanian, C. (2005). Testing the effects of regional, ethnic and international dialects on listening comprehension. *Language Learning, 55* (1), 37 – 69.
- Mayer, R. E., Sobko, K., & Mautone, P. D. (2003). Social cues in multimedia learning: Role of speaker's voice. *Journal of Educational Psychology, 95*, 419-425.
- Moinzada, A., Rezaei, S. (2012). The effects of non-native accent on Iranian EFL learners' listening comprehension, focusing on Persian accent of English. *Journal of Language Teaching and Research, 3*(5) 967 – 972.
- Ortmeyer, C. & Boyle, J. P. (1985). The effect of accent differences on comprehension. *RELC Journal, 16*, 48-53.
- Smith, L. E., & Bisazza, J. A. (1982). The comprehensibility of three varieties of English for college students in seven countries. *Language Learning, 32*, 259-269.
- Sweller, J. (1988). Cognitive load during problem solving: Effects on learning, *Cognitive Science, 12*, 257-285
- Tauroza, S. & Luk, J. (1985). Accent, listening comprehension and low proficiency ESL learners in Hong Kong. *RELC Journal, 16*, 48-53.
- Ur, P. (1984). *Teaching listening comprehension*. Cambridge: Cambridge University Press.
- Wilcox, G. K. (1978). The effect of accent on listening comprehension- A Singapore study. *ELT Journal, 23*, 118-127.