

The Effect of Abbreviation as a Note-taking Aid On The Reproduction/Reconstruction of Class Lectures

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Abstract:

This study aimed at investigating the use of abbreviation as a note-taking technique to help EFL students overcome their speed writing difficulties. In order to see whether using abbreviation while taking notes of lectures has any improving effect on note-taking and reproduction of lectures, two homogeneous groups of EFL students were chosen as the subjects of this study: the control group (n=30) and the experimental group (n=30). The experimental group undertook a treatment in the use of abbreviations in writing and note-

taking. They were taught some conventions (a set of sound symbols) to be used in transcribing class lectures at the moment they are delivered. Before any treatment was given, the students in both groups were pre tested through a proficiency test (TOEFL). A T-test was conducted for comparing the mean scores of the two groups on TOFEL. The result of the t-test demonstrated that the two groups were homogenous in terms of their language proficiency. After the treatment period, in order to find out whether any difference existed between the two groups' results, the notes of the students receiving instruction in note-taking with reduced form of language (symbols and abbreviations) were compared with the notes of control group in terms of the number of idea units recorded. Results of data analysis showed that there was a significant difference between the two groups regarding their use of propositions. The experimental group produced 1979 propositions, almost twice the number of propositions produced by the control group, i.e., 1070. Thus, it can be concluded that the use of abbreviations and symbols has a great impact on lecture note-taking of EFL students.

Key Words:

Note-Taking, Abbreviations, Class Lectures

Introduction

Within the field of academic study, from among the various instructional media available to teachers, lecture is known to be the central instructional activity (Flowerdew, 1994:1). This teaching technique requires sophisticated listening and note-taking skills and poses additional difficulties for nonnative students. Thus, studying and identifying areas that might be amenable to improvement through teaching is highly recommended. The lecture, as Waggoner [1984: 7, cited in Benson (1989: 426)] argues, has achieved "*Paradigmatic status*" and "is still identified as the one *learning method* most preferred and most used in adult education" (cf. Oddi: 1983, cited in Benson 1989). As Coman & Heavers (1990: 21) maintain, "lectures given by teachers are fleeting things. The ideas and concepts presented, unless captured on paper by students taking notes, are quickly confused or forgotten". Thus, in order to recall a lecturer's main point, one must develop note-taking skills. In fact, adequate notes are a necessary adjunct to efficient study and learning in college. On the other hand, most students find it very difficult to concentrate on what the lecturer is saying at the same time as taking down notes of what has just been said, since as Wilson (1994: 234) asserts, "lectures requiring simultaneous writing and listening are a difficult task".

Regardless of the degree and complexity of note-taking, there are

certain requirements to fulfill if we wish to take faster and effective notes. There are certain strategies which can be employed to make note-taking easier.

Research into lecture note-taking has traditionally focused on its twin functions of encoding and storing lecture information, and its value has been judged in terms of performance on specially designed tests. Rarely have the notes taken by students been investigated as object of interest. And to the best knowledge of the researchers, the literature has not offered a study with a specific focus on a particular note-taking format.

Nowadays note-taking guidelines for students can be found in many Internet sites in the home pages of universities and learning centers. Another type of note-taking guideline is supplied by Carrier (1983) who gives tips to instructors on how to facilitate the note-taking of their students. Whether one considers oneself a skilled or unskilled note-taker, his/her note-taking can improve by learning to be more flexible and concise. In order to circumvent the limitations of lecture note-taking, a technique can be used that galvanizes students into writing efficiently and effectively. The technique is abbreviation. The merit of using abbreviation in lecture classes is obvious. It helps our students to make the transition of spoken modality to written modality easily and effectively. Familiarizing university students with the ways they can exploit techniques for shortening of words will

probably facilitate their note-taking and improve their **academic** performance.

While educators encourage the development of training programs aimed at teaching the auditory , cognitive and functional skills that comprise effective note taking (see, for example, Dunkel and Pialorsi, 1982; Lebauer, 1988; Mason, 1983; Reutten, 1986; Sotiriou, 1986; Young and Fitzgerald, 1982), note taking is a skill taught by relatively few foreign language teachers (Koren, 1997). On the basis of the reviews done by Hartley (1983), Kiewra (1985) and Clerehan (1995), it is evident that considerable research has been conducted on the topic of note taking. Most researches, however, have traditionally focussed on note-taking's twin functions of encoding and storing lecture information (external storage function). The encoding function suggests that the process of recording notes facilitates learning. It is measured by comparing the performance of students who listen and record notes with the performance of those who listen to a lecture but do not record notes. The external storage function suggests that review of notes stored in a written form facilitates performance of students who record and review their notes with those who record notes but are forbidden to review their notes (Kiewra and DuBois , 1991).

Results of research on the encoding function have been mixed .The synthesis of research reviews by Hartley (1983) and Kiewra (1985) demonstrated that of 61 studies on note-taking and listening, 35 found

a facilitative encoding function, 23 indicated that note takers and listeners did not differ significantly on performance tests, 3 reported that listening without note-taking led to better performance than note-taking (Kiewra and DuBois, 1991) .

The efficiency of reviewing an external record of the lecture has also been well documented .In 32 studies reported by Hartley (1983) and Kiewra (1985), 24 found that students who reviewed their notes had a higher achievement on Performance Tests than those not permitted to review. Eight other studies reported no difference between reviewers and non-reviewers; no study indicated that review was dysfunctional.

Although a growing number of educational research has been conducted on the issue of listening and note taking, little is known about the lecture note taking of students and as Dunkel [(1988, 278) cited in Clerehan (1995)] maintains, “students’note taking has largely been ignored by the L1 and L2 educational communities as a phenomenon of study”. According to Clerehan (1995), one of the chief limitations facing the era of previous studies on note taking is that experiments have usually been directed towards subsequent performance on multiple - choice tests. For example, Di Vesta and Gray(1972) and King (1992), using videotaped lectures of 30-40 minutes ,examined students’ notes for main ideas and a multiple-

the students notes with four different experimental conditions and a multiple-choice test. They noted that students who recorded notes that focused on main ideas did better on all test items. Those related to main, to detail, and to the integration of ideas.

Another problem with research on note taking functions, as Kiewra and DuBois (1994:241) maintain is that “note-taking techniques have rarely been manipulated. As a result, little is known about how students should take notes and what type of notes is best for review. Further, they note that students in most experiments are left to record notes in their conventional styles indicating that conventional note-taking practices generally produce notes that are incomplete and ineffectively organized (e.g.; Bretzing and Kulheavy, 1981 ;Kiewra and Benton, 1988) . Bretzing and Kulheavy(ibid) found that students tended to record verbatim notes. In another study, Kiewra and Fletcher (1984) actually directed students to record generative notes but found that students were largely unable to do so. In a research carried out by Fahmy and Bilton (1990), it was observed that one reason for student’s inability to take effective notes lay in the fact that they (the students) did not make any use of standard abbreviations or any form of shorthand devices in recording important points. They reported that 25% of their subjects who kept very disorganized notes made no use of abbreviations . Fisher and Harris ,1978; and Lock 1977 had also

previously mentioned the same problem in their examination of the students notes.

So far, there has been various attempts to determine what constitutes good lecture notes. Chaudron et al. (1988) provide a coding system intended to evaluate the quality of L2 students notes .This was based on organizational patterns (use of numbering ,outlining ,examples)other structuring (use of capitalization , horizontal lines to separate sections , underlining columns) diagrams, degree of verbatim note –taking (transcription rather than paraphrasing) and quantity (total number of words , symbols , abbreviations).

Dunkel (1988) also attempted to develop a set of indices which would predict post- lecture retention performance (judged by means of a multiple –choice test) for L1 and L2 note takers . Her indices were, in summary : total number of word scores, information units count, test answerability score (which equalled the number of test questions answerable from the subjects' notes); and completeness score (the number of information units in the lecture divided by the number of words).It was found that students who had completed large amount of spoken discourse into propositional–type information units performed best on the quiz . Moreover, the calculation of the relationship between the test–answerability score and the total number of words in notes appeared to be one potential index. However, this was not the

case for L2 note takers as there was a low correlation between test answerability score and achievement on the quiz .

In another study, Clerehan (1995) examined L1 and L2 students' notes from a commercial Law lecture to determine whether any differences were observable in the recording of the hierarchical structure of the lectures. She found that L1 students recorded 99-100% of the principal elements. In the L2 group, however, there was an average of 19% omission of major headings ,34%of sub-headings ,and 40% of legal cases. In other words, L2 students recorded significantly fewer of these top level elements . Clerehan (ibid) further pointed out that abbreviations, as a characteristics of the “simplification” involved in note taking (e.g.Fahmy and Bilton, 1990; Janda, 1985), and even as a measure of quality of notes (Chaudron et al. 1988),were not widely used. Perry (1982) studied transcription accuracy as affected by different levels of syllabic intensity in vocabulary–controlled dictation copy. Findings showed that when vocabulary is controlled, transcription accuracy is affected by different levels of syllabic intensity. Smith and Kelliher (1992) examined the notion that shorthand systems derive their efficiency from the operation of a non-lexical sound –to– writing route. In this experiment, word frequency and accurate phoneme transcription accuracy were correlated whereas nonsense words resulted in decreased transcription accuracy , indicating that lexical effects for shorthand are as strong as for

English orthography. Dingle (1988) examined the nature of systematic language errors made by beginning Gregg shorthand writers and an exploration of their relationship to four linguistic ability groups. In this study, 219 students in two –year colleges were given two writing tests and a transcription test from 50-words-per-minute dictation recording. The results revealed that the number of errors made by beginning Gregg shorthand students is inversely related to the linguistic ability reflected in their writing .

Method

Subjects

Altogether 60 EFL students participated in this study. Of these subjects, 16 were studying at Teacher Training University and the rest at different Branches of Islamic Azad University in Tehran. The subjects were homogenous in terms of language proficiency.

Instrumentation

First, a test of English as a Foreign Language (TOFEL) was employed to determine the language proficiency and homogeneity of the subjects. Second, both groups were asked to listen to six 15- minute lectures and take notes. Finally, the students sat for the testing session. They were required to listen to a 15- minute lecture entitled “the study of human behavior” and take notes. The experimental group

who had already received treatment in the use of abbreviations were encouraged to use these techniques in their notes, but the control group took notes in conventional fashion without the use of abbreviation and shorthand devices. To select appropriate listening materials, some taped lectures which were used for the note-taking course in the previous TEFL program in Iran were chosen. (Note-taking is no longer offered at the BA level in Iran). From taped lectures on a variety of subjects such as mathematics, physics, chemistry, geology, etc 6 lectures were selected. These 6 lectures were chosen because their topics were general such as *action, the study of human behavior*, and *examination in English*, compared to more specific topics such as the *structure of an atom*, etc. The selected lectures lasted 15 minutes each. They were designed to teach students how to take notes.

In terms of communicative mode, they were extracted from written texts and were definitely “read” lectures. They had not been recorded in real lecture situations; therefore, they did not include students’ responses, coughs, and various other classroom noises, and thus the listeners were not required to overcome the normal interference and distractions of listening.

Design

In this study, one independent variable with one level (shorthand) and a dependent variable (proposition) with 1 level were involved. In fact,

experimental group was instructed to do so using abbreviations and shorthand devices they had learned through treatment; whereas, the control group didn't receive any treatment in shorthand writing and had to take notes in the conventional fashion without using abbreviations and shorthand devices. The third and final step, was to have all the students listen to a 15 minute taped-lecture and take notes. The tape was played only once and both groups were required to take notes during the delivery of the lecture.

Instructional Procedure

The subjects in the experimental group were instructed to use short form of words (mostly function words) to take notes. Prior to taking notes, explanation was provided on how to use abbreviations and shorthand devices. The purpose of note-taking with shorthand devices was carefully explained to the subjects, pointing out its importance for their academic work. (For the shorthand symbols used in transcribing lectures, Brooks' (1945) ABC Shorthand for Writers was used. However, due to time limitations, mostly the function words were included in the treatment (See the Appendix).

The instructions in note-taking, with the aid of shorthand started about six weeks after the first semester had begun and were scheduled once a week. It lasted about 5 weeks. By the end of the instruction sessions, the students knew how to take notes with the use of

shorthand symbols and abbreviations. The benefits and procedures of reduced form of language were highlighted and discussed before students sat for the testing session.

Scoring Procedure

The notes gathered from both groups were scored by marking the number of propositions correctly written. For the identification of propositions of the lecture, Larson's (1984) book entitled "Meaning-Based Translation" was used since the definitions provided in this book seemed practical.

Statistical Analyses

After administering the last lecture to the selected groups of Iranian undergraduate students, their notes were gathered and corrected. A list of all the raw scores for the 60 subjects was compiled and computerized for data analysis using SPSS computer program. The mean and the standard deviation of the scores gained on each test were calculated. Moreover, the data were analyzed using the following statistical procedures:

- T-test for comparing the mean scores of the two groups on TOEFL.
- Chi - Square for comparing the use of propositions by the two groups after the treatment.

Results & Conclusions

The t-observed value for the TOEFL test was 0.61. This amount of t at 58 degree of freedom and .05 level of significance is much lower than the critical value of t, i.e., 2.02. Thus, it can be concluded that the two groups are homogeneous in terms of language proficiency. The mean score for the control and experimental groups, as illustrated in Table below, were 73 and 70.96 respectively.

Table 1**T-test for comparing the mean scores of the two groups on TOEFL**

Variable	Of Cases	Mean	SD	SE of Mean
TOEFL				
Control group	30	73.0000	15.782	2.782
Experimental group	30	70.9666	10.176	1.858

Mean Difference = 2.0333

Levene's Test for Equality of Variances: $F = 1.137$ $P = .291$

T -observed = 0.61

The chi-square observed value for comparing the use of propositions by the two groups after the treatment was 271.00 at 1 degree of freedom and .05 level of significance. This observed value is much greater than the critical value of chi-square, i.e., 3.84. Therefore, it can be concluded that there is a significant difference between the two groups regarding their use of the propositions. The experimental group produced 1979 propositions, almost twice the number of propositions produced by the control group, i.e., 1070, as shown in Table 2.

Table 2

**Chi- square for comparing the use of propositions by the groups
after the treatment**

Control group	1.00	1070	152.50	-454.50
Experimental group	2.00	1979	1524.50	454.50
<hr/>				
Total 3047				
Chi-Square	D.F.	Significance		
271,0006	1	.05		

Pedagogical Implications

In academic environments, where most of the information is conveyed to students through lectures, perhaps a major task that confronts EFL or ESL students is the acquisition of note-taking skills, in order to effectively accommodate the lecture format.

One suggestion in this regard is to write a set of words in the form of some symbols or mnemonic devices which can be put together to come up with original words later. In fact, this study offers practical tips to help students develop better note-taking skills. It recommends the introduction of “shorthand” for note-taking activities as a technique to foreign language learners. It argues that attention to these

components is viewed as indispensable to EFL and ESL students at university level due to the features inherent in this technique.

There are some bonus features of this technique to the teaching of English as a FL which should be mentioned. Perhaps the most important of these is focusing the students' attention on the content of the lecture by freeing them from concerns of writing the full form of words when writing without stopping. Another bonus feature is the possibility of integrating multiple language skills. A third value of this technique is developing in students the ability to write under pressure of time. Fourthly, it stimulates an understanding of the need to edit and polish lecture notes. Since excessive notes are not desirable, notes should be revised and condensed to be more effective. In fact, it is maintained here that students can not listen, evaluate, and write down quickly what is being said simultaneously. Note-taking with the use of shorthand helps them listen, write attentively and later review their notes. It does this by equipping the students with techniques to remove obstacles to speed writing.

Moreover, in many universities and colleges in Iran, English news programs from the Voice of America and the BBC World Service are used as teaching materials. The EFL students in these classes will be required to take notes during the delivery of oral material in order to translate the listening material into their mother tongue or to give a summary of the news in the target language as an oral task.. These

students will probably find using abbreviations and symbols highly beneficial.

As a final point, it would be unrealistic to claim that the suggestions made here will, by themselves, automatically enable our students to write spoken English perfectly. Students must improve their listening ability as well. Otherwise, they will not understand the sounds falling on their ears and this will affect the notes they make. By helping our students to listen effectively and take notes more efficiently we can develop in them successful performance in academic tasks. It is hoped that such collaboration will lead to better preparation of non-native speakers of English who must function effectively in their academic courses.

Appendix

List of Shorthand Devices and Abbreviations

The	D	has	hs
That	Dt	had	hd
And	&	have	hv
are	R	will	wl
he	E	shall	l
or	O		

to	T	can	k
in	.n	when	wn
of	V	will	l
at	@	whom	hm
for		was	ws
From	Fr	what	wt
if		which	w
is	s/z	would	wd
be	B	because	cas
You	U	of course	crs
Your	Ur		
They	Dy		
This	Ds		
There	Dr		

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