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Exploring the Listening Processes of Pre-University ESL Students

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Abstract

To better prepare pre-university students for learning in the university setting, scholars have called for the critical examination of the basic language skills necessary for lecture comprehension. This call is also echoed in ESL listening research where experts have accentuated the importance of investigating the listening processes which are at work in an academic setting to improve learning. This inevitably puts listening skills in the forefront because by far listening is the most indispensable skill for learning in a university environment. Within this context, this paper reports on a pilot project which uncovers the listening processes of pre-university ESL students. The primary aim of the investigation is to explore the listening processes of pre-university students to learn more about their cognitive and behavioural listening strategies. A procedure that incorporated the verbal channel for gathering think-aloud protocols was developed to suit the respondents' language ability. Pre-university students were asked to listen to a selection of audio taped texts, modelled on the Malaysian University English Listening Test (MUET). As they listened, they were asked to think-aloud their thoughts as they attempt to answer 15 multiple choice questions (MCQ). Their verbal protocols were audio taped and their behavioural responses observed by the researcher. The findings reveal that students employ a variety of listening strategies during the listening event. The study concludes by discussing the implications of using the data collected as an alternative pedagogical opportunity that could be infused gainfully into the ESL listening classroom.

Keywords:listening comprehension;strategies; verbal protocol; ESL; pre-U

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1. Introduction

Listening is seen as a cornerstone competence not only in the language classroom but also in the workplace. Brownell (2002) championed the importance of listening skills in terms of employability. Also, A number of second language acquisition (SLA) researchers have proposed that students' overall ESL proficiency is vastly enhanced when oral practice is delayed in the initial phase of language learning and emphasis is placed upon listening (Vandergrift, 2002; Rost, 2002). Despite this call, the value of listening in the ESL context is underrated as a result of the failure to signal the significance of the input it brings into the classroom (Remedios, Clarke & Hawthorne, 2012).

Thus far, listening is not given the treatment or status in most language learning classrooms in Malaysia. Like in many language learning settings worldwide (Rost, 2002; Vandergrift & Tafaghodtari, 2010), listening is widely acknowledged as a neglected skill due to insufficient pedagogical development and perhaps even teacher training (Mendelson, 1998). In comparison to other language skills, like writing, reading and speaking, listening competency receives significantly less attention in the Malaysian classroom (Khatijah Mohd. Tahir & Gurnam Kaur Sidhu, 2004; Nair,S., 2010).One of the fundamental reason for this disregard is the dearth of instructional models to teach listening. Numerous listening comprehension studies have highlighted the lack of empirically grounded models of listening comprehension (Rost, 1994; Brindley, 1998, Buck, 2001; Renandya & Farrell, 2011). Among the reasons cited for the lack of conclusive listening theory is partly due to the nature of listening itself which is a cognitive process and therefore difficult to observe (Takei, 2002).

Most of the listening research in the past is concerned with the product of listening and the performance of listeners. However, more recent studies (Buck, 2001; Rost, 2002) seem to focus on the invisible process of listening as it describes the complex nature of language processing which is both interactive and interpretive. The current methodologies used in the study of listening shows a marked departure from the investigative methods used in earlier listening research which focused on the product quality of the listening task. Product study is the analysis of the listeners' completed text. This has always been the mainstay of listening research for a long time. But what distinguishes such examination in recent studies from that of the past is that the aim of the former is to discover the cognitive processes underlying the listeners' choice of responses during the listening task (Vandergrift, 1997) and not merely to determine the quality of the end product (Smith & King, 2013). There is a growing skepticism among listening researchers (Buck, 1990; Rost, 2002) about product examination due to the realisation that we cannot make assumptions about the listening process by merely counting the features present in the product produced during listening. Written recall may not only produce inaccurate representation of listening behaviour due to interference from weakness in other skills, it may be an incorrect means to view the listener's cognitive listening process. Because of these concerns, the use of verbal protocol is fast gaining currency as a fruitful means of investigating listening processes. In this method, the products of listening are not analyzed to investigate their quality instead they are explored for the light they throw on the cognitive operations for the production of such features(Smith & King, 2013)..

A verbal protocol is a time-ordered detailed record of thoughts that occur and reported while a person is performing a task (Hayes & Flower, 1980). The researcher analyses the protocol and infers from it the psychological processes the subject used to perform the task (Hayes & Flower, 1980). While protocol analysis is considered to be a maturing methodology in the field of listening as seen in recent studies (Goh, 2002; Vandergrift, 2003), it has been an important element in developing cognitive processing theories of reading (Pressley & Afflerbach 1995). They note that, participants who are explicitly told to be aware of their cognitive operations and explain them may produce a more accurate picture of the cognitive processes at work than a subsequent picture implied from a task.

Also lacking are studies that provide insights into techniques and tactics used by second language learners to process listening input. A Malaysian study by Gnanakkanan (2004) in a tertiary setting, suggests the re-evaluation of listening instruction methods to include more process oriented approaches rather than product driven methods. This is also echoed in a recent study conducted by Zeng (2012) which illustrates the premium placed on listening processes as they help learners become sentient of their learning processes. A deeper

understanding of how learners process a listening task is necessary to shed light on how listening instruction can be designed to facilitate learning. It is within this backdrop that this investigation was conceived.

A number of reviews of listening comprehension have attributed the lack of listening theory to the difficulty in investigating the cognitive processes which takes place in the mind (Dunkel, 1991; Rost, 1994; Takei, 2002). Another reason for this neglect is due to the fact that listening is considered an innate skill which is passively acquired by nature of exposure to the language. Listening has been considered a skill which can be automatically acquired and therefore taken for granted (Long &Macian, 1992). According to Richards (1990), teaching methodologies such as the oral approach reduced listening to an act of reproduction where the listeners reproduced what is heard.

Currently the only window provided for the treatment of listening in the Malaysian language classroom context is in the Malaysian University English Test (MUET) classrooms, also only because listening is tested as a separate skill. Even here, listening instruction takes the form of practice tests. It is clear that focusing on a model practice test in listening classrooms does not develop students' ability to listen effectively in university lecture halls, listening exams or the other academic settings confronting pre-university students. If listening instruction in secondary schools and MUET classes stresses product approaches, it is expected that students, especially ESL students, will not be equipped with the skills to handle listening challenges upon entry into university.

Considering the literature described earlier, the study will focus on the evidence of both cognitive and metacognitive aspects of listening by engaging students in the actual process and asking them to "think-aloud" as they listen. This pilot study was designed to systemise the think aloud procedure which is the main methodology employed in this study. This study is an attempt to uncover empirical evidence on the listening problems which will be evident in their cognitive processes during listening in an academic setting. Based on these observations, the proposed investigation is an attempt to explore the listening processes of pre-university students. The overall aim of the study is to obtain real time data on cognitive listening processes, i.e., the thinking operations that underlie decision making during a unidirectional listening task. A unidirectional task is a typical listening task carried out in an ESL classroom. It refers to a task where the listener listens to an audio input and is unable to interact with the input, as in the case of a tape recorded text. It is expected that the findings will deepen our understanding of the cognitive and behavioural processes underlying students' listening to better prepare instructors for teaching listening in the English as a Second Language (ESL) classroom.

The specific research questions addressed in the study are listed below:

- What cognitive processes emerge from pre-university students' verbal protocol?
- What listening strategies do pre-university students employ in a unidirectional listening context?

2. The Study

The research design employed in this study is a qualitative method of verbal protocol analysis. The students were asked to think aloud as they attempted the listening task. Before the think-aloud sessions, students will be interviewed to get a better description of their experiences. Also to deal with validity threats in the study, method triangulation will be included, whereby the data from the pre- and post-interview sessions and observation will be used to cross-examine the data from the think-aloud. In this study, triangulation of interviews, observations and think-aloud will provide a more accurate and complete account of the mental processes at work when participants are listening. The data for the study will be gathered employing the methods listed below.

2.1. Participants

The sample consisted of six semester two diploma students who were enrolled in a pre-requisite proficiency course. They were selected based on a purposive sampling method based on their scores on a validated MUET listening test. To investigate the influence of students' listening proficiency on their cognitive processes, students were divided into higher and lower listening proficiency sub-groups based on their scores on a listening sub-section of the MUET test. Three students were selected from the skilled group and the other three represented the

less skilled students. These students were trained to think aloud using sample reading text to familiarize them to the procedure.

2.2. Listening task

In selecting a listening task that was natural and yet observable, it was decided that a sample MUET practice listening test which was widely available in the market be used. The rationale behind this decision is the fact that listening is not taught in isolation in the Malaysian school curriculum; the best bet was the MUET listening test. The sample listening test (task) was selected according to the following criteria: authenticity of the text, presentation of information, i.e. news report, talk and discussion, organization of information and familiarity of topic. The selected MUET sample test consists of 15 multiple choice items. Participants were familiar with the test, as they have completed similar tests during regular English classes in semester one. The duration of the test is about 30 minutes. Before the pilot stage began, the listening test was validated by three experienced MUET instructors to ascertain the difficulty level and the representativeness of the sub skills. However, even in the initial phase, the participants were reminded that the focus of the listening task was on the mental processes involved during listening and not on the end product, i.e. getting the answers correct in the listening test.

3. Methodology

The rationale behind the use of verbal protocol in this study stems from the methodological characteristics of a process study such as this. Also, the decision is based on the assumption that cognitive operations during listening are identifiable. The methodology for this study included verbal protocol sessions and observation of overt listening behaviour.

3.1. Verbal protocol sessions

Individual verbal protocol sessions were held at which the students expressed his/her thoughts. Based on the initial training session, it was evident that the students were more comfortable expressing their thoughts in their mother tongue. As such, they chose to think aloud in Bahasa Malaysia. The session was audiotaped by an assistant who took the cue to turn on and off the tape recorders, in this case two tape recorders, one for playing the listening test and one for taping their verbal protocols. All written products, including students' notes, test papers generated during the think-aloud sessions were collected to assemble a verbal protocol, which is a detailed record that tracked the students covert listening process.

3.2. Observation

During the think-aloud sessions, the researcher noted the students' overt listening behaviour in order to determine instances of tuning in or out. An observation matrix was constructed to enable the researcher to draw inferences about the students' listening behaviour and the context in which it occurs. This provided a tacit understanding of the students' listening problems and approach.

4. Data Analysis

4.1. Preparing data for analysis

Once the students' oral responses were transcribed and translated, the think-aloud units were marked and observations were recorded, the data sets were complete. Analysis of the data focussed on an examination of the listeners' thoughts as they reflect in the think-aloud protocols.

4.2. Identifying think-aloud units

Think-aloud units consist of any verbalisation made during the procedure. For coding purposes, each separate comment was counted as a think-aloud unit. Some think-aloud units comprised simple vocalisation, e.g. "What". Others were lengthy remarks. These units were identified with a numeric indexing system in sequence of occurrence. Comments that dealt with procedural issues were not coded

4.3. The compilation of the listening processes

There were 2 main stages in the assembly of the processes which specifies the coding categories.

4.3.1. Initial categorisation

This involved placing think-aloud units in tentative categories. In the preliminary stage of the categorisation process, the researcher worked with each listening protocol and analysed the observed listening behaviour using the method of constant comparison (Strauss & Corbin, 1990). The protocols were examined and re-examined in an open coding procedure attempting to identify categories that exhaustively accounted for behaviours in the protocol. In this recursive process, the researcher went back to the literature reviewed in the study to compare emerging categories with those of previous studies of listening (Goh, 2002) and verbal protocol research in reading in second language learning. Terminology that is conceptually similar to that in reading and second language learning was used to describe similar phenomena in this study. The listening protocols were reviewed and consulted with colleagues with experience teaching listening and doing qualitative research to discuss coding categories. For initial categorisation, data was coded into an indexing system of individual categories. As initial categorisation proceeded, the transcripts were reviewed each time something revealing was found in the protocol and it was identified as tentative or non-categorised category in the index system. By the end of this process, a list of individual listening process was categorised.

4.3.2. Open coding

After the initial categorisation, the researcher began open coding the protocols. By open coding, the listening process were named and categorised through close examination of the protocols. The two analytical procedures used throughout open coding was making comparisons and asking questions. At this stage, new categories were developed and existing ones refined. The aim of this phase is to explore new themes that emerged by questioning assumptions in cognitive research. During open coding, the researcher together with a colleague (the same person who assisted in the procedure), compared each unit of think-aloud as they went along so that similar themes could be identified. The researcher also sought assistance from colleagues to label themes and compare findings for individual listening protocols. The scoring categories were grouped based on the sets of main processes and sub-sets which reflect a description of the sub-processes that constitute the main listening processes.

4.4. Protocol scoring

After an in-depth, recursive examination of the think-aloud data, the researcher scored the six individual protocols using the compiled categories of listening processes. This was done by applying category labels across all six protocols.

5. Results

As each group of processes was identified, categorised and defined, the basic classification scheme proposed by Vandergrift (2002) was applied. This classification comprised metacognitive, cognitive and affective categories. These three broad categories were utilised in maintaining coherence as categories were classified and organised in the development of the final coding scheme. Based on the study, it was apparent that most students used both cognitive and metacognitive processes to help them during the listening task. For example, if we look at listening preparedness which is categorised as a cognitive process because it performs a specific role which is to assist participants in decision making and carrying out their intended goals or purposes for that particular listening task.

5.1. Listening processes of pre-university students

A wide array of listening processes occurred in the students' verbal reports of processes concurrent to the listening task. During listening, the students evaluated, inferred, interpreted, monitored, activated comprehension repair strategies, paid selective attention, integrated, and took notes. The relative use of these processes during listening is depicted in Table 1. This description includes both the processes and specific strategies used by students during the listening task. An example of a process is evaluating the speaker whereas a strategy refers to the tactics the students used to guess the speaker's tone.

Table 1. Description of Listening Processes and Strategies

Processes	**Descriptions**
Evaluates	Student reacts to, or makes judgements on particular information or the recording as a whole.
Expresses expectation	Towards speaker, content and voice quality based on feelings and prior knowledge of the topic.
Evaluates speaker effectiveness/efficacy	Evaluate speaker's ability to achieve purpose of text e.g. creates informal tone.
Evaluates speaker characteristics	Evaluates delivery, style, clarity and pronunciation.
Evaluates content	Evaluates the type of text and its appropriateness, the language, vocabulary, expressions and question type, evaluates relevance of content and organization of text.
	General Affective Responses
Conveys Affective Reactions	Student displays affective reactions during the listening event.
Expresses interest, surprise, concern	Displays interest or concern. Leans forward, focuses on CD player, raises or twitches eyebrows, sighs.
Expresses positive affect	Displays satisfaction smiles, snaps fingers, nods, says "Yes".
Expresses negative affect	Displays frustration, dissatisfaction, shakes head, disgust, frowns, creates attention by twirling pencil, drops shoulders back.
Displays confusion	Displays confusion, knits brows, looks up for clarification with raised eyebrows.
Displays lack of interest, boredom	Doodles, body oriented away from CD player, sighs, looks around.
	Cognitive Processes
Infers and Predicts	Student relates to background knowledge and experience to make sense of text or to aid understanding.
Relates to general background knowledge	Reacts to listening text based on background knowledge of topic, listening practice in class, personal experiences, general vocabulary knowledge.
Makes linguistic inference by	Reacts to unknown vocabulary by word association;

making use of familiar content words	"immunisation against filariasis – mmm .... must be a disease."
Guesses, predicts or speculates using contextual clues	Guesses unfamiliar language items, anticipates general content details, speculates answers to questions when listening to text; "I'm sure this is the answer."
	Metacognitive Process
Checks and Initiates Comprehension Repair Processes	Student monitors understanding during listening. These include rewording, correction strategies to make sure he/she understands the text.
Acknowledges and notes understanding	Notes that they understand or do not understand text; notes whether text was difficult or easy.
Acknowledges and notes unfamiliarity	Indicates whether content is known on not known, indicates having background knowledge, indicates surprise in new found knowledge.
Asks questions to clarify	Questions the researcher about content, speaker, or context of text.
Backtracks	Looks back at previous questions and answer options to make sense of problematic questions.
	Metacognitive Processes
Selectively Focuses and Attends	Student states awareness of what she/he chose to do.
Focuses on questions	Looks at rubrics and questions before the tape script is played.
Focuses on content	Highlights or looks for specific words to prepare for listening and answering questions.
	Cognitive Processes
Forms Images and Conceptualises	Student makes mental or visual images to represent information.
Forms mental representations	Repeats phrases and keywords to create mental pictures to differentiate between part and whole information.
Summarises	Makes oral or mental summary of the text.
	Cognitive Processes
Incorporates	Student makes sense of text by making inferences and analyzing disparate parts of listening selections.
Relates questions to listening text	Relates to questions and tries to pool information from different questions to tackle "exception" questions.
Translates and relates to task	Finds B.M equivalent for selected keywords. Uses Bahasa Malaysia to make sense of most words and context. Expresses comments in Bahasa Malaysia.
	Cognitive Process
Makes and Takes Notes	Student writes keywords to aid understanding, underlines and circles words in question paper to clarify meaning and deciphers later.

5. Conclusion

This pilot investigation revealed that it was possible to map the listening processes of students in a unidirectional listening context. The protocols revealed a wealth of information that can be used to improve classroom instruction. One fundamental implication of this study is for teachers to create awareness about the variety of tactics that are available to students to improve their listening. Teachers need to model tactics and strategies holistically in order for students to explore what works and what fails in a given listening event as

Macaro (2006) so fittingly describes that strategies are not individual in nature instead they should be dealt with in clusters. Teachers should not attempt to teach strategies in isolation but instead model the use of the strategies in given situations by thinking aloud with students in order for successful transfer to take place. Also, students should be encouraged to respond to listening tasks mindfully by developing their attentiveness to the listening event as it unfolds. Rather than focussing on the product of listening, teachers should interrupt the tasks and pose questions that allow the students to probe their own mental operations before they arrive at the answers. This will not only develop critical listening strategies but also train the students to integrate the listening content to their own experiences. In sum, integration of listening processes and strategies, mindfully, can shift the focus of the language learners from the product of listening to the plethora of processes that allows for critical listening.

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