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LECTURE INTRODUCTION: BRIDGING THE GAP BETWEEN STUDENTS' BACKGROUND KNOWLEDGE AND NEW LECTURE CONTENT

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Abstract
During lectures, students are inundated with vast amounts of information and good academic listening skills are vital for them to make sense of the information. When students are not inducted into the new lecture content, the gap between their existing background knowledge and the new content may affect their comprehension of the lecture. This study examined the use of lecture introductions for bridging students' background knowledge with new lecture content. The specific aspects studied were the organisational structure of the lecture introduction, and the use of questions and pronouns to engage students' thinking on the content of the lecture. A case study was conducted at a Malaysian university, involving lecturers from seven faculties. Forty-seven lecture introductions conducted in English were audio-taped and transcribed. Analysis of the organisational structure of lecture introductions based on Schuck (1970) and Davies (1981) revealed that activating students' prior knowledge was the main component of the lecture introduction, but lecturers tended to state aims and objective of the lecture; point out importance of mastering the knowledge; and make announcements and give instructions before proceeding to the body of the lecture. To engage students in a communicative discussion, the lecturers were found to use the second-person pronoun "we" more frequently than "I" and "you" to include students in the intellectual discourse. Display questions were also extensively used but they were not effective in generating lecturer-student interaction on the subject matter due to the students' passive response. The findings suggested that lecturers asked questions on the students' previous knowledge to prepare them for the lecture proper.

Keywords: background knowledge, lecture introduction, pronouns

INTRODUCTION

To a large extent, lecture remains as a major part of university study (Benson, 1989; Johns, 1981; Richards, 1983). In the past, university students mainly rely on their auditory skills to process their lecturers' monologue, but now they are assisted by visuals in the form of powerpoint slide presentations. However, as auditory input is the main source of information, university students still need academic listening skills in order to identify the purpose, scope and topic of a lecture, and those who can identify the role of discourse markers are able to discern the structure of a lecture and follow the topic development better (Richards, 1983). Academic listening skills are a necessary component of communicative competence for university students (Flowerdew & Miller, 1992). The difficulty of learning from lectures is compounded when students are not proficient in the language of instruction. Even "a new word, an unfamiliar pronunciation, or a complex sentence structure can cause challenges for them in understanding an English lecture" (Huang, 2005: 2). To assist students to cope with lectures, university discourse has been increasingly studied in different aspects.

A potent area of investigation is the lecturers' presentation of the lecture encompassing the styles of delivery and language features (e.g., DeCarrico & Nattinger, 1988; Dudley-Evans & Johns, 1981). Research on the nature of lectures has focused on both delivery styles and the form of the genre. Among the early research on spoken academic discourse, Morrison (1974) was the first to divide science lectures into two categories, namely, formal and informal lecture. A formal lecture refers to formal registers delivered in close to spoken prose whereas informal lecture refers to high informational content but not necessarily delivered in highly formal register. Subsequently, Dudley-Evans and Johns (1981) categorised transportation, plant biology and minerals engineering lectures into reading style, conversational style and rhetorical style. In terms of the form and content of the lecture genre, Olsen and his co-researchers studied students' comprehension of the types of lectures. Olsen and Huckin (1990) found that although the engineering postgraduate students understood all the words of a lecture, many students were not aware of the distinction between lectures giving information and those developing an argument in a problem-solving framework. Olsen and Huckin's findings inspired two other studies which showed that both learners of English as a second language in Hong Kong (Tauroza & Allison, 1994) and native speakers of English in England (Tauroza & Allison, 1995) experienced difficulties following the lecturer's argument where the discourse organisation moved beyond a simple problem-solution structure.

Although previous studies had examined the macro structural pattern of whole lectures or delivery styles, most of these studies did not specifically examine the introduction of a lecture. Thus far, the staging of lecture introduction has caught the attention of some researchers such as Schuck (1970) who focused on introductions to science lessons and Davies (1981) who proposed essential components to include in introductions to language and literature lessons. Based on an experimental study of a high school science lesson, Schuck (1970) concluded that an effective lesson consists of orientation, transition, operation and evaluation. In the context of Schuck's study, the orientation stage is likened to the introduction. Although Schuck's study had indicated that having a lesson orientation is able to maximise students' learning and achievement, the study was confined to science classes in a high school setting. Davies (1981) proposed that the introduction to language and literature lessons include pointing out importance of task, stating aims and objectives, attracting students' attention and arousing interests, establishing link, setting up atmosphere and setting up the climax. As Davies' notion is a merely proposal and Schuck's framework is discipline-specific, empirical investigations are needed to examine how the observed structural pattern cuts across discipline in university lecture introductions. Essential also to activation of students' background are language features which serve as listening cues to provide a discourse frame for the content, and therefore assisting students' learning.

Introductions are important because "a good presentation to start off a lesson together with well-planned teaching strategies will ensure a highly effective and interactive method for transferring knowledge to students" (Sullivan & McIntosh, 1996: 5). Lecture introduction is important to relate lecture content to previous class material, mention the background of the current lecture, or give student a brief introduction of the content of the current lecture (Sullivan & McIntosh, 1996). The beginning of a lecture provides the avenue for lecturers to bridge the new lecture content with students' background knowledge to ease their comprehension of the new materials. It is reported that students may be better able to comprehend and understand the lecture well if they are familiar with the stages of a lecture (Diamond, Sharp & Ory, 1983). Hence, it is important to study how lecture introductions are conducted in order to obtain a better understanding of how lecturers prepare students for the transmission of a large amount of information.

In this study, we examined the discourse features of lecture introduction in an institution of higher learning. The discourse features were studied both in the staging, and the types of questions and pronouns used by lecturers to activate students' prior knowledge.

Investigating the discourse features of lecture introductions would contribute towards better learning outcomes for university students for whom lectures are the main means of acquiring knowledge.

THEORETICAL FRAMEWORK

In this study, the constructivist theory of learning is chosen as the overarching theoretical framework which allows a study of how content organisation, questions and pronouns are used in the lecture introduction to bridge students' background knowledge with the lecture proper. Since lectures deal with mastery of knowledge rather than skills, and it is not customary to test knowledge acquired at the end of every lecture, the behaviourist learning theory is not applicable. The cognitive learning theory is also not applicable as the focus of the study is not on the body of the lecture which functions to transmit a large amount of information.

In recent years, there has been a move towards the application of constructivist principles of teaching in the lecture context. The four essential features of constructivism are eliciting prior knowledge, creating cognitive dissonance, application of new knowledge with feedback, and reflection on learning (Baviskar, Hartle & Whitney, 2009). Elicitation of prior knowledge is important in a lecture as it allows lecturers to assess the students' baseline understanding of the subject matter in order to build on this foundation and scaffold their learning of the new material. The other three essential features of constructivism are applicable to the body and closing of a lecture. By eliciting prior knowledge, the lecturers are, in effect, activating students' background knowledge to prepare them for the lecture proper.

Activating background knowledge is one of the three constructivist strategies in language arts which are useful for structuring a better lesson (Ciminelli, 2009), and the other two are examining personal experiences and collaborative or cooperative working groups. According to Ciminelli, activating prior knowledge is imperative before introducing a topic and is done using questions and anticipation guides. This is particularly useful in helping students to "draw their prior knowledge to the forefront of their minds, build confidence, improve student engagement and promote critical thinking" (Ciminelli, 2009: 5). Apart from that, to enable students to examine personal experiences, students are asked to keep learning logs of various concepts so that they can reflect upon, think deeply about and analyse their experiences. Finally collaborative or cooperative learning, either online or in class, "gives students the opportunity to put into practice the concepts they have been constructing" and encourages the students to "evaluate, clarify and expand their thinking" (Ciminelli, 2009: 7). These constructivist practices in structuring the lesson are recommended to enhance students' learning.

In the constructivist theory of learning, asking questions is at the heart of "inquiry-based learning" (Yang & Wilson, 2006). Recognising that questioning is a valuable tool to stimulate student learning, educators therefore, are encouraged to "use appropriate questions to activate students' prior knowledge, as well as to actively engage students in the exploration and transformation of knowledge" (James & Carter, 2006:1). Studying how questions are used in lecture introductions provide insights into the nature of interactivity that occurs before the lecture proper. Athanasiadou (1991) categorises questions based on the degree of textuality and definition of interpersonal relations into referential questions (ask for unknown information), display questions (that test students to see if they know the material at hand), rhetorical questions (that do not require response and they often serve to provide information) and indirect questions (used to make recipient act). Long and Sato (1983) compared the questioning behaviour in native speaker and non-native speaker informal conversation outside the classroom based on seven categories of questions adapted from Kearsley's (1976) taxonomy and found that the ESL teachers asked significantly more display questions which are considered less likely to engage students in meaningful

interaction. Support for Long and Sato's findings was found by Shomossi's (2004) study on English as a foreign language lectures in Iran. Referential questions were better than display questions in that they increased the length and complexity of student response (see Brock, 1986; Hussein Ahmed Al-Muaini, 2006). However, Wu's (1993) study of teachers in Hong Kong showed that referential questions tended to be less effective than display questions in eliciting students' responses (see also Lee, 2006). These findings suggest that the setting may have an influence on the types of questions used. Research on questions from another angle showed that content-oriented questions for instructional purposes were found to be mainly wh-questions whereas questions posed for interactional purposes were mainly yes/no questions (Crawford Camiciottoli, 2008). Since questions are used for various purposes in the teaching-learning contexts, focusing on a particular purpose such as activating students' background knowledge may offer better insights into the role of questions in stimulating student learning.

In this study, the types of question in the lecture introductions to make the connection with students' background knowledge were analysed based on Athanasiadou's (1991) classification of questions as shown in Table 1.

Table 1 Athanasiadou's (1991) classification of questions

Type of Question	Purpose	Example
Referential	Ask for unknown information	'Those of you who were in U.S, did you have any contact with religion?'
Display	Test whether students know the matter at hand (The lecturers know the answers)	'What speaker's face is being threatened?'
Rhetorical	Do not require student responses and often serve to emphasise information	'What is the business of Parliament? Now the main'
Indirect	Politely request students to respond in the form of physical actions	'Is there anybody who doesn't have this handout?' (Students raise their hands.)

In addition to the four types of question, echoic question was added to the framework to take account of vast number questions asked for this purpose in the lecture introductions. Echoic question was taken from Kearsley's (1976) framework. This type of question asks for repetition of an utterance or confirmation that an utterance has been understood. Echoic questions have a different function from epistemic questions which serve the purpose of acquiring information (display, referential, expressive and rhetorical questions). They serve to involve students in the lecture by asking for minimal responses, usually "yes" and "no". For example, "Alright, we still have two groups to present, right?" (Line 14, Lecture Introduction 42). The lecturer knows the answer but this is not a display question because it does not deal with subject matter content. Echoic questions also serve as a filler in between questions as in "We provide answers, we cannot assume, OK?" to elicit some kind of agreement from students. This category of questions surfaced during the preliminary analysis of the lecture introductions and was included in the framework for the analysis of the rest of the lecture introductions.

Besides questions, pronoun is another language feature that can be used to engage students in the lecture discourse. Research on the use of pronouns during lectures indicates that affective bonds between lecturers and students can be established through an informed use of "we" (Rounds, 1985). In the study, Rounds asked the teachers, students and mathematics department supervisor to view videotaped lectures of five university calculus classes taught by native and non-native English-speaking graduate student teaching

assistants. Apart from the traditional "inclusive/exclusive we", Rounds found three other distinct sets of discourse-defined referents of "we", namely, "we" in contexts in which "I" is more specially marked (e.g., we said that …), (2) "we" for students (e.g. "I want to look at some of the problems we had for today …) and (3) "we" which can be replaced by the encompassing pronoun "one" (e.g. "We (mathematicians) call that number, that number that we get …"). Along this line, Fortanet (2004) analysed personal pronouns in a 1.7 million word Michigan corpus of spoken and academic English, and found that "you" was the most frequently used personal pronoun but "we" was mainly used to refer to a larger group of people, of whom the speaker is the representative or spokesperson. Fortanet attributed the interchanging of pronouns to students' interruption in lectures which changed a monologic mode of language into a dialogue. However, when Okamura (2009) restricted the analysis to academic speech in the same corpus, findings showed that "you" was most frequently used in undergraduate lectures while 'I' was employed more in public lectures. Considering the inconsistency of findings on referents for pronouns and ambiguity of the referent for "we", further studies are needed to examine the function of pronouns in lecture introductions, particularly for activating students' background knowledge.

Table 2 Classification of referents for 'we' based on Rounds (1985, 1987a, 1987b)

First person pronoun – we	**Definition**	**Examples**
1. Inclusive 'we'	Instances in which the addressee is included (I + you)	'We are going to relax for a few days…'
2. Exclusive 'we'	Instances in which the addressee is excluded (I + they)	'We say the function f of x…is differentiable…at a point x…if its derivative exists there….'
3. We for 'I'	The speaker (teacher) is the only referent	'Let's write this thing on the bottom the way we originally wrote it.'
4. We for 'you'	The addressee (student) is the sole referent	'I want to look at some of the problems we had for today…'
5. We for 'anyone', substituted by 'one'	Anyone who does calculus (indefinite)	'We (mathematicians) call that number, that number that we get, that function we get here, the derivative…'

Table 2 shows the framework for the classification of personal pronouns used to analyse the referents of "we" for activating students' prior knowledge in lecture introductions. The five referents for "we" were adapted from Rounds (1985; 1987a; 1987b). Inclusive -"we" means that the referents include both lecturers and students (e.g., we covered Bayesian reasoning last week) whereas exclusive-"we" refers to the lecturers and experts in the field but excludes the students. The others could be professional groups the lecturers belong to, for example, engineers and researchers. In addition to inclusive-"we" and exclusive-"we", the plural first person pronoun "we" is also used to refer to singular subjects, as found by Rounds (1985). "We" for "I" indicates the referent as the lecturer himself or herself whereas "we" for "you" points to the students alone (e.g., we have done an assignment on this topic) or anyone involved (e.g., if we have a marketing strategy...). Following Rounds (1985), the study differentiates between the semantic mappings for the referent "we". However, the scope of this study did not include the analysis of possible conceptualisations of the referents for "you" and "I".

METHODOLOGY

The data for lecture introductions were obtained from core courses in the arts and sciences in a Malaysian public university. Language courses, generic courses and laboratory sessions were not included in the study. Lecture introduction in this study is defined as the preliminary briefing before the lecturer begins the lecture proper for the day, indicated by the beginning of a new topic.

Purposive sampling was conducted in that only lecturers who conducted lecture introductions were included in the study. Lecturers who said that they did not carry out lecture introductions were excluded. Random sampling was not used as this was not an experimental study. The study was also not designed to investigate the demographic and situational variables affecting how lecturers conduct their lecture introductions. Hence, the stratified sampling strategy was not applicable. The final sample depended on the lecturers' willingness to participate in the study as their participation was voluntary. Given the qualitative nature of the discourse analysis of lecture introductions, the more important consideration was the conditions for the collection of naturally occurring data. Lecturers were told that the study was on the lecture introduction discourse but the specific aspects examined were not revealed so that they would not feel compelled to include elements which were not part of their usual practice. The lecturers were also promised anonymity and since the recording was conducted by a master's student and not by one of their colleagues, the feature of evaluative judgment on their lecture delivery skills was lessened.

Initially, the first researcher requested 160 lecturers to participate in the study through telephone calls, electronic mails or face-to-face meetings. The lecturers were told that the study was on how they conducted lecture introductions. However, 20 lecturers reported that they did not conduct any lecture introduction in their lectures and declined to participate in the study. Another 20 lecturers did not respond to the invitation whereas 67 lecturers explicitly declined to participate in this study. Out of the initial list of 160 lecturers, 53 lecturers were willing to participate in this study. However, six recordings were excluded from this study due to unclear recording, leaving 47 lecture introductions for the analysis of the spoken discourse.

For lecturers who consented to have their lecture introductions recorded, discussions of a suitable time for the recording ensued. Each lecturer was recorded only once. The recording began as soon as the lecturer entered the lecture hall and began talking. The cues for the end of the lecture introduction were showing of new slides on the topic, and definitions of key terms followed by detailed explanations on the concepts and theories related to the topic. The recording was usually stopped after the lecturers have gone a little into the explanation of the new topic. During the data collection, there was no problem in detecting the boundary between the lecture introduction and the body of the lecture. The recording of the lecture introductions took place over a period of four months in a semester.

The audio-taped lecture introductions were transcribed using Eggins and Slade's (1997) conventions, with non-verbal contextual information such as fillers indicated by (mm…, uh-huh), pauses by (…), and overlaps by (= =) in the transcript. The transcripts were prepared in the language originally used by the lecturers, which happened to be English in the present study. The occasional use of Bahasa Malaysia was italicised in the transcripts. The lecture introduction transcripts were analysed for the organisational structure and selected language features for activating students' background knowledge on the lecture topic, namely, question types and pronouns.

The structure of language introduction was analysed by referring to the lecture introduction framework proposed by Davies (1981). This framework was selected because it contains elements of constructivist teaching although Davies (1981) did not specifically anchor the

framework to this learning theory. The constructivist elements in Davies' (1981) framework appear in the stage of "establishing links" between previous lectures and the current lecture. In this stage, the lecturers explicitly mention topics or sub-topics which had been covered in previous lectures to assist students' recall of related information. The lecturer goes on to explain how the information will be built on in the current lecture. Bridging students' existing knowledge with new information in this manner is indicative of the constructivist principle of teaching. In addition, Davies' (1981) proposed framework for effective lesson introductions has general application in the teaching of content subjects because it is not limited to the teaching of science.

Table 3 Davies's (1981) proposed stages of lesson introductions

Stage of lesson introduction	**Examples**
Stating aims and objectives	'Alright, so today we are going to look at Chapter 11, alright, on retail organization and human resource management…' (Lines 11–12 , Lecture Introduction 22)
Pointing out importance of tasks	'Like I mentioned to you earlier, methodology is really important, OK, quantitative, research methodology, qualitative research methodology, then we marry them…' (Lines 39–40, Lecture Introduction 2)
Establishing links	'OK, last week we learnt about music notation, how music is notated, the staff, the treble clef…OK, today we will look into how music is notated. You will learn how music being notated, and how long…' (Lines 4–5, Lecture Introduction 12)
Attracting students' attention and interest	'[Lecturer shows pictures of some building] OK, the building is 400 hectare, how much is the cost?' (Lines 29–30, Lecture Introduction 4)

The stages in Davies' (1981) proposed framework for lesson introductions in elementary and high school settings were not sequenced in a particular order. According to Davies (1981), there were originally six proposed stages, namely, "pointing out importance of task", "stating aims and objectives", "attracting students' attention and arousing interests", "establishing links", "setting up an atmosphere" and "setting up the climax." All these proposed stages refer to the activities conducted in a classroom setting which include language and literature classes. In the school setting, the activity of setting up the atmosphere of learning and setting up the climax of a lesson refer to the efforts that have been taken by the teachers to attract the children in a primary school or kindergarten during a reading activity which is more likely to happen in language and literature classes (Anderson, 1991). In the context of university lectures involving core courses, these two stages of "setting up the climax" and "setting up atmosphere" are not applicable and only four of the six stages proposed by Davies (1981) were included for the analysis of the structure of lecture introductions. The four stages of lesson introductions which were adapted for use in this study were: "attracting students' attention", "pointing out importance of task", "stating aims and objectives" and "establishing links" with the lesson proper (see Table 3).

In this study, "stating aims and objectives" refers to the act of lecturers outlining what the students will learn during the lecture. "Pointing out importance of tasks" is the stage when the lecturers highlight the importance of students mastering the knowledge they had learnt or will soon learn. The "establishing links" stage takes place when the lecturers explicitly state

how the topics covered in previous lectures are related to the topic of the current lecture. As for the stage of "attracting students' attention and interests", it refers to the statements made by lecturers to draw students' attention to something the students already know. Lecture introductions with these stages bridge students' background knowledge with the new lecture content.

The analysis of how lecturers used questions and pronouns to activate students' background knowledge during lecture introductions was based on Athanasiadou's (1991) classification of questions and Round's (1985) classification of the referents for "we".

RESULTS AND DISCUSSION

In the subsequent description of the results, the lecturers are referred to as P1 to P47 and students as SS. The excerpts of lecture introduction are shown with minimal editing of the language for grammaticality in order to retain the authenticity of the data as impromptu oral speech is not characterised by the well-formedness of utterances (Halliday, 1985).

Typical Structure of Lecture Introduction

The results showed that a typical lecture introduction at university includes two stages: activating students' prior knowledge, stating aims and objectives. Out of 47 lecture introductions, there were 40 activations of students' prior knowledge and 39 statements of the aim of the lecture (Table 4). Based on the frequency, these two seem to be the compulsory stages of a lecture introduction. A total of 36 lecturers had both the prior knowledge activation and aim statement stages but the frequency for activating prior knowledge and stating aim exceeded 36 because some of the lecturers repeated either stage in their lecture introduction.

Table 4 The typical structure of university lecture introductions

Stages in lecture introduction		Frequency
1.	Activating students' prior knowledge	40
2.	Stating aims and objectives	39
3.	Greeting	23
4.	Giving instructions and announcements	22
5.	Pointing out importance of task	15
6.	Checking on students' understanding or problems	12
7.	Building up students' general knowledge	12
8.	Establishing links	6
9.	Attracting students' attention and arousing interest	5
10.	Checking students' work	2

Besides these two compulsory stages, a number of other stages were present in the lecture introductions. Although the frequency is not as high, the lecturers also tended to begin the lecture with greetings (23 occurrences) and instructions and announcements regarding assignments and examinations (21 occurrences). Through the announcements on extra readings and practical sessions, the lecturers pointed out other avenues to enhance students' understanding of the subject matter covered during the lecture. In this study, about one-quarter of the lecturers pointed out the importance of task (15 occurrences) before they began their lecture. During the review of the previous lecture, they highlighted certain portions to ensure that students had the necessary background knowledge to proceed. In

addition, some lecturers also checked their students' understanding of these important parts (12 occurrences) before embarking on the lecture proper. They also built up students' general knowledge during the lecture introduction. The other stages listed in Table 4 were not as frequent. Excerpt 1 illustrates the components of a typical lecture introduction.

Excerpt 1.

P36	:	Alright, we have a quite a long semester and I [have] only seen you once [at] the beginning of the semester and this is the second time. The other lecturers have given you some of the discussions and description part of the course. I hope you will make a good effort to learn and I will see you again next week for the last lecture. And I think next week the class will be very full, very fast, and everybody will come, even come before time, because next week, there's a briefing for the exam and I will also tell you about your mid-semester paper. So I know students love that kind of classes.	**Giving Instructions and Announcements**
		What we are going to talk about today is not anything new, it is something that you have heard many times, and you may have also covered part of it in other courses. I believe you have touched on it, instrumentation and lab management. I also believe that this topic may have [been] discussed in the other courses, such as Genetics, and perhaps in Cell Biology.	**Activating Students' Prior Knowledge**
		What we are talking about today is actually polymerase chain reaction. And for many of you, polymerase chain reaction represents a term that you will continuously use many times next year. [A] majority of final year projects will cover this technique.	**Stating Aims and Objectives**
		So it is important that we teach you comprehensively about polymerase chain reaction. It is no longer a technique, it was a technique about twenty years ago. But now, it has become a basic need in the biology world. So make sure you understand this. And it is also important, it comes out in the exam most of the time because we want our students to really know what polymerase chain reaction is.	**Pointing out the Importance of the Task**
		Now, today's lecture will cover, first of all, what it is, definition and description of the technique, then it will cover the methodology involved in polymerase chain reaction and at the end I will show you, give you examples of [the] application of polymerase chain reaction.	**Stating Aims and Objectives**

A biotechnology lecturer, P36, began the lecture by announcing that it was the last lecture and students were expected to come and get the exam tips. P36 went on to give instructions and announcements. Then P36 told the students that Polymerase Chain Reaction was not new to them, and they had learnt it in instrumentation and lab sessions as well as in Genetics and Cell Biology courses. By referring to settings where students might have heard of Polymerase Chain Reaction, the lecturer was activating students' prior knowledge. Through all these, P36 had not mentioned the topic of the lecture for that day, which was

Polymerase Chain Reaction but it was already projected on the screen. This stage is considered as Stating Aims and Objectives, although it was only the topic. P36 subsequently pointed out the importance of the task, that is, knowing Polymerase Chain Reaction for their final year project and final examination. Finally, P36 announced that the lecture would cover the definition, description and methodology of Polymerase Chain Reaction. This stage was coded as Stating Aims and Objectives, but it was not a repeat of the first stating of aim which was very general.

Compared with the framework of lecture introductions proposed by Davies (1981), the two common components are pointing out importance of task, and stating aims and objectives of the lecture. The findings show that the lecturers under study explicitly activated students' background knowledge and took the opportunity to give instructions and make announcements, components not found in Davies' (1981) framework. The analysis revealed that 21 lecturers mainly refreshed students' previous knowledge on the topic, usually from the past lectures. Remembering relevant old knowledge is important for the acquisition of new knowledge which has a substantial impact on the learning process (Chi, Glaser & Rees, 1982). However, as prior knowledge includes disciplinary knowledge, students' personal background information and personal experiences, the results indicates that the lecturers did not activate the full range of prior knowledge that was available. The other components of the lecture introduction identified by Davies (1981) were not as frequent, namely, attracting students' attention and arousing interests, establishing link, setting up atmosphere and setting up the climax.

Questions for Activating Background Knowledge in Lecture Introductions

A total of 1001 questions were identified from the analysis of 47 lecture introduction transcripts. Table 5 shows that display question emerged as the most preferred question type (427 occurrences or 42.6%), followed by echoic questions (394 occurrences or 39.4%). In comparison to these two types of questions, fewer referential, rhetorical and indirect questions were asked.

Table 5 Frequency of questions used by lecturers to activate prior knowledge

Type of question	Frequency (Percentage)	Frequency of student responses to questions (Percentage)
Display	427 (42.6%)	133 (59.9%)
Echoic	394 (39.4%)	35 (15.8%)
Referential	126 (12.6%)	48 (21.6%)
Rhetorical	48 (4.8%)	0 (0%)
Indirect	6 (0.6%)	6 (2.7%)

Analysis of student responses to questions revealed that the students were more likely to respond to display questions (133 of 427 or 59.9%) compared to referential questions (48 of 126 or 21.6%) or echoic questions (35 of 394 or 15.8%). The other types of questions were not only less frequently used but also less likely to elicit responses from students. All the 133 display questions answered by the students were about factual information and disciplinary knowledge which not only happened in the stage of activating students' prior knowledge but also in other sub-stages such as building up students' general knowledge, attracting students' attention and arousing interests, giving instructions and announcements and greeting (see Table 6). Further analysis of the display questions according to the staging of the lecture introduction showed that most of the display questions (314 or 73.54%) were used to activate students' background knowledge. Questions were seldom asked when lecturers focused on building up students' general knowledge (49 or 11.48%) and givign instructions and announcements (48 or 11.24%).

Table 6 Frequency of display questions used by lecturers according to the stages of lecture introductions

Display question	Frequency	Percentage
Activating students' prior knowledge	314	73.54
Building up students' general knowledge	49	11.48
Giving instructions and announcements	48	11.24
Attracting students' attention and arousing interests	15	3.51
Greeting	1	0.23
TOTAL	427	100

In this excerpt from a 15-20 minute session, many display questions (underlined) were used to activate students' prior knowledge on the theory of career development covered in the previous lecture.

Excerpt 2.

P_3 : Normally, at the beginning of our class, **we will flash back, we will discuss**… [ ] Ok, I will ask you once again, alright, regarding your understanding on what we have already covered during the slot yesterday, alright, what have we covered, class? One issue in career development, alright, first, we covered what, class? I will ask you several questions because that one is very important for your mid-term as well as for your final exam, ok, what have we covered, class? During previous, yesterday class. First, we touched on what?

SS : Stages of life

P_3 : Stages of human development process, that is the thing, correct. Human development process regarding the development process of human as a general whereby in this particular element we covered review on two models, of a what we called that one? Er, human development process. The first is review the work of who?

SS : Erik Erikson

P_3 : Erikson, Erik Erikson. Whereby the human development process actually include[s] how many processes?

SS : Eight

P_3 : Eight stages, whereby the first stage we considered it as what, class?

SS : Basic trust

P3 began by asking students to recall what they had learnt, along the lines of "what have we covered?" which was repeated four times. Students in this study were usually passive and responded after the questions were repeated. Only after students had stated "stages of life" as the topic of the previous lecture, did P3 move on to ask for the name of the psychologist who proposed the human development process and the number of stages in the model.

The brief responses provided some evidence that the students remembered what was taught in previous lectures or could make a connection to previous knowledge and experiences. It is evident from Excerpt 2 that the students tended to give one-word answers or at most short phrases that do not reflect critical thinking, and this is typical of student responses in the data set. Recall of information is the lowest level in Bloom's (1956) taxonomy of the cognitive domain as comprehension of information is not required. Although the display questions in lecture introductions are useful to establish a common knowledge base before the lecture proceeds to a new topic, the questioning does not make students process the information presented in the previous lecture at higher cognitive levels. The level

of student engagement with the subject matter seems to be low, based on the student responses.

Nevertheless, the frequent questioning may have facilitative effects on comprehension of the lecture proper, an aspect beyond the scope of the current study. For example, Morell's (2004) experimental study showed that questions can promote interaction in originally non-interactive lectures in English Studies. Student feedback indicated that lecturer questions increase the likelihood of students participating in lectures (Morell, 2007). Another study on student perceptions showed that the lectures perceived to be the most comprehensible were those in which the lecturers asked the most questions (Suviniitty, 2010). In this light, it may be worthwhile to study whether use and non-use of questions affect perceptions of comprehensibility of lecture introductions.

Pronouns for Activating Students' Prior Knowledge in Lecture Introductions

The analysis focused on the first pronoun the lecturers used to activate students' prior knowledge in the lecture introduction. The attention to the first pronoun is based on the reasoning that this is a signal cue used by lecturers to position their students in relation to the knowledge that is being activated. The results showed that the pronoun "we" was the most common pronoun used by the lecturers (42 out of 72 occurrences) and they seldom used the second person pronoun "you" (18 occurrences), and first person pronoun "I" (12 occurrences) (see Table 7).

Table 7 Frequency of pronouns used to activate students' prior knowledge

Pronoun	Frequency	Percentage
We		
'You and I'	19	26.4
'I'	14	19.4
'You'	9	12.5
You	18	25.0
I	12	16.7
TOTAL	72	100

Further analysis revealed that the referents of "we" could be different: "we" for "I" (the lecturer); "we" for "you" (the students); and "we" for "you and I" (the lecturer and students). Identification of the exact referents of "we" in the lecture introduction transcripts posed some problems but this was resolved by referring to the verbs used by the lecturers. When the verbs show the joint participation of lecturers and students in an action, or tasks where the lecturer leads the students, the referent of "we" is taken to refer to both lecturer and students. Examples of such verbs are *discuss, flash back* (see bolded words in Excerpt 2).

Of the three referents, the lecturers were more in favor of using "we" to indicate the referents of "you and "I" when activating students' prior knowledge. Out of 47 lecturers studied, 13 used the pronoun "we" for "you and I" a total of 19 times in the first utterance in the stage of activating students' prior knowledge. The results concur with Milne (2006) who also found that "we" was used the more frequently than the pronouns "you" and "I", and "I" is the least used. Milne (2006) highlighted the lecturers' use of "I" to provide personal information as opposed to "we" to position themselves as a professional or academic figure. Other than this, "we" is mainly used to shorten the distance with students and to establish common ground. Using "we" to indicate the referents of "I and you" shortens the distance between the lecturers and students as well as stresses solidarity (Kuo, 1998). The use of "we" may be beneficial in an interpersonal sense when students realise that their lecturers meant to include them in the intellectual discourse. Despite the potential offered by many referents of

"we", students may hardly infer the referents due to limited linguistic cues provided in that particular context because the "meaning of the first person plural is often vague" (Biber, Johanson, Leech, Conrad & Finegan, 1999: 329). This study did not examine student awareness of their lecturer's use of pronouns but this is a direction that future studies can take to find out the impact of pronoun use on the recipients of the message.

CONCLUSION

The study on lecture introduction in a public Malaysian university shows that it serves the purpose of bridging the students' existing knowledge with the new content of the lecture. The findings reveal that as most of the lecturers activate students' prior knowledge and state aims and objectives of the lecture, these are the compulsory stages of a lecture introduction. The optional stages are giving instructions and announcements, and pointing out importance of task. The present study reveals that the lecturers use mostly the first person pronoun "we" to refer to themselves and the students when activating their students' prior knowledge. This audience engagement strategy work together with the use of many display questions to involve students in the establishment of a common knowledge base for the lecture proper. However, as the display questions are mainly recall questions and do not challenge the students to think critically, other question types are recommended for use in the lecture introduction to aid activation of student's prior knowledge, for example, rephrasing, simplification, decomposition and probing (Wu, 1993) to enhance the interactivity of the teaching and learning environment. Further research on other language features of lecture introductions is needed to shed light on the complexities of the spoken academic discourse.

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