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**An Analysis of the Characteristics of a Socio-Cultural Instructional Discourse**

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## **An Analysis of the Characteristics of a Socio-Cultural Instructional Discourse**

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### **Abstract**

*The purpose of this study was to analyze the characteristics of an instructional discourse within the realm of the socio-cultural theory. A pre-school teacher and a group of pre-school children participated in the study. Real time non-participant observation, field notes and post-observation of the videotaped of the selected conversation were the methods of data collection for the study. The data were analyzed qualitatively using the coding derived the literature review. The data were categorized in three characteristic themes: the interdependence between social and individual processes, co-construction of knowledge and the use of meaningful and purposeful language. The findings show that the selected instructional conversation reflects the characteristics of discourse within the realm of the socio-cultural theory. The implications of the study are discussed within the context of second language teaching.*

Keywords: Socio-cultural theory, co-construction, instructional discourse

## **INTRODUCTION**

The term discourse can be generally defined as language in use. Subsequently, discourse analysis can be defined as a study of language in use (e.g., Taylor, 2001). Therefore, the term instructional discourse may refer to language in use within an instructional context. A discourse is commonly shaped by the theory grounded in the discourse. Hence, an instructional discourse is shaped by the language theory that underlies the discourse. As such, depending on the theoretical grounding of a discourse, the nature of an instructional discourse tends to vary and can be identified by analyzing its characteristics.

## **A GLANCE AT LANGUAGE ACQUISITION THEORIES**

The theories of second language acquisition (SLA) have evolved from the behavioristic and structural linguistics theories to the cognitive theory and the emergence of the socio-cognitive and socio-cultural theories in the field of SLA.

### **Structural Linguistics**

In the 1950s and early 1960s, the SLA field was strongly influenced by behaviorism and linguistically approved by structuralism (Shirai, 1997). The structural view perceives language as a system that comprises “structurally related elements for the coding of meaning” (Richards & Rodgers, 2001, p17). The objective of language learning is measured based on the mastery of language elements such as phonological units (e.g., phonemes), grammatical units (e.g., clauses, phrases, sentences), grammatical operations (e.g., adding, shifting, joining, or transforming elements), and lexical items (e.g., function words and structure words).

### **Cognitive Theory**

In the 1960s these views of SLA began to shift to the importance of learners’ cognition. Chomsky (1965) argued that besides looking at language acquisition from the perspective of its property, it was equally important to look at how meaning is made from the surface structure and how meaning as the deep structure assists in the acquisition of the surface structure. Within the SLA domain, the cognitive theory is categorized as a transition theory that complements the property theory within SLA and it focuses on “second language cognition in terms of mental representations and information processing” (Ellis, 1999, p. 22); two major components of psycholinguistics. According to McLaughlin (1998), mental representation as part of learners’ intra-psychological activities may come in the forms of perception, recall, and reasoning. Information processing within the cognitive theory in SLA involves interaction among variables such as input, noticing, working memory, long-term memory, intake, transfer, inter-language as well as learner factors in creating an output (Pang, 2000).

### **Socio-Cognitive Theory**

The term socio-cognitive was coined by Atkinson (2002). Within the SLA field, the socio-cognitive theory addresses “mechanical features of language learning/teaching and acquisition from a psycholinguistic viewpoint” (Matsuoka & Evans, 2004, p. 3). Socio-cognitive theory posits that one’s language acquisition is primarily learned through their context of social interaction as well as through interaction with their environment. Therefore, an individual’s environment and changes in that environment affect the individual’s thought processes, which in turns influences the development of his or her language acquisition.

## **Socio-Cultural Theory**

Hymes (1971) views language as being cognitive and social in nature. Hymes (1972) coined the term, 'socio-cultural'. This term is also considered as synonymous with the terms 'socio-historical' and 'cultural historical' (e.g., Daniels, 2001; Wells & Claxton, 2002). The theoretical underpinning of the socio-cultural theory is rooted in the works of a Russian psychologist, Lev Vygotsky (e.g., Vygotsky, 1978). SLA researchers see the need to embody cognitive issues within the historical, social, activity, and context; elements that cannot be isolated from the process of language acquisition (Thorne, 2000). Within the sociocultural theory in SLA, language is considered as a central tool for the development of thought processes or the crucial means of mediation for one's cognition. Therefore, language learning is perceived as a socially mediated process that encapsulates the interrelated processes of communication, collective thinking, learning and context, which are shaped by culture. Hence, from the perspective of socio-cultural theory, language is considered as a cultural and psychological tool for human to fulfill functions in life (e.g., Mercer, 2004).

## **THE GENERAL CHARACTERISTICS OF A SOCIO-CULTURAL DISCOURSE**

Some past studies (e.g., Mercer, 2000, 2004) have examined how collective thinking assists the development of higher psychological function as purported by Vygotsky (1978). Generally, a socio-cultural discourse involves humans as speakers who produce communicative exchanges, which oral transactions occur using a language as a tool in a purposeful and meaningful manner. The communication may take place among dyads, triads or in a group, community or society. One of the purposes of the production of communicative exchanges is to fulfill a certain function or accomplish a certain goal(s).

## **THE CHARACTERISTICS OF A SOCIO-CULTURAL INSTRUCTIONAL DISCOURSE**

Educational discourses embark on an instructional platform predesigned prior to classroom engagement. How teachers design their instruction shapes the type of educational discourse that will take place within the instructional context. Therefore, an instructional discourse that yields from the implemented instruction can be utilized to infer the theoretical underpinning of classroom instruction.

Among the principal components of education are school, teacher and students. The school serves as a cultural institution, which setting is compartmentalized into classrooms context. Hence, discourses in education within the classroom context generally occur among speakers comprising teachers and students. The discussion that takes place in the classroom surrounding a selected topic in which each member of the learning community plays a communicative role reflects the interdependence between the social and individual processes that contribute to learning.

Educational discourse also involves the co-construction of knowledge (e.g., Donato, 1994; Reusser, 2001). The term *co-construction of knowledge* denotes the process of knowledge sharing which occurs in a multi directional discourses since the knowledge shared among speakers is constantly added, evaluated, reduced, confirmed, refined and some is denied in relation to its relevancy to the discussion. The co-construction continues in which the teacher and learners build on each other's knowledge, which co-construction process contributes to the intended learning in line with the instructional goals. Co-construction of knowledge in a

language classroom may occur via a communicative discourse surrounding topic-based, text-based or task-based. Co-construction of knowledge is reflected when members of the learning community mentor each other, share ideas and build on each other's idea to advance learning (e.g., Donato, 1994; Kumar, 2011; Walker, 2010).

Educational discourses function as a vehicle to achieve instructional goals. Within the realm of socio-cultural theory, the language used in an educational discourse should be meaningful and purposeful (Vygotsky, 1978) in such that it assists the speakers to fulfill a function (e.g., Halliday, 1971).

## **METHODOLOGY**

The purpose of this study was to analyze the characteristics of an instructional discourse from the realm of the socio-cultural view. The following are the research questions pursued in the study:

Research Question 1: Does the instructional discourse reflect interdependence between social and individual process?

Research Question 2: Does the instructional discourse reflect co-construction of knowledge?

Research Question 3: Does the instructional discourse reflect the use of meaningful and purposeful language?

### **Research Setting**

The research setting was a private pre-school. The participating students are around 6 years of age. The pre-school was selected because one of the researchers had access to the selected school. The pre-school setting was selected because young children require more explicit and detailed instructional discourse due to their young age in comparison to older learners. In addition, since this is a pioneering developmental study of its nature, the researchers considered that the investigation should start with the early stage of instruction, which is the pre-school stage.

### **Participants**

The participants were a group of pre-school children and a teacher. The pre-school children are of mixed ethnicity from a diverse first language background. The participants were selected using convenient sampling. The principal of the school selected the teacher who was willing to volunteer to participate in the study. The teacher was a female with 10 pre-school children of mixed gender.

### **Research Procedure**

Prior to data collection, the researchers acquired the participating pupils' parents' consent for their children to partake in the study. An informed consent from the participating school, parents and the teacher was also acquired to videotape the selected lesson. One of the researchers scheduled an appointment with the participating teacher to observe one of her lessons. The purpose of the study was explained to the teacher in such a way that maximally curbed potential contamination. The teacher was informed to teach the selected lesson as she planned.

## **Data Collection**

The data in this study were collected via classroom observation as non-participant observers. On the observation day, the researchers developed a rapport with the participating pupils with the purpose of making their presence unthreatening to the young learners. The observing researchers sat at the back of the class and took field notes on events that reflect teacher-pupil mentoring, pupil-pupil mentoring, teacher-pupil idea sharing, pupil-pupil idea sharing, teacher-pupil idea-building and pupil-pupil idea building. The lesson was tape-recorded and videotaped throughout for the purpose of verbatim transcription.

## **Data Analysis**

The videotaped lesson was transcribed verbatim. The data were categorized into three different themes within a language classroom instructional context: interdependence between social and individual processes, co-construction of knowledge and use of meaningful and purposeful language. The coding of the interdependence between social and individual processes category comprises the marking of the presence of the teacher, students, as well as communicative interactions between the teacher and the pupils and among pupils. The coding of co-construction of knowledge was marked by events of teacher-pupil mentoring, pupil-pupil mentoring, teacher-pupils idea sharing, and pupil-pupil idea sharing. The use of meaningful and purposeful language was inferred by the use of language that enables the fulfillment of a function via the use of language or task completion using language as a tool.

## **FINDINGS AND DISCUSSION**

The finding and discussion of findings in this section are presented in the order of variables studied in each research question.

### **Interdependence between Social and Individual Process**

The selected classroom observed in this study involved a teacher, pupils and point of learning as a medium to initiate and build knowledge via interactions among the teaching and learning agents. The teacher initiated the lesson by saying, "Today, we're going to make apple sauce bread." This introduction set as the launching point of the interactions, which provided the pupils the intended social context of interactions. However, at this point the teacher had not yet initiated the social interaction. When she said, "Anyone has eaten an applesauce bread before?" and when the pupils raised their hands and shouted their responses in group to the teacher's prompt, "I have...", the teacher had created the platform for social interactions to take place. The question from the teacher, "Well, what do we need to make apple sauce bread?" provided subsequent encouragement for her students to participate more actively in the lesson. The teacher also introduced the lexical items that would be used in the lesson of describing a process as a scaffold to aid the students in their interactions by stating, "Hmm... We need some applesauce, sugar, flour, oil, a sifter, a bowl and a ladle". One of the students shouted, "Mummy used that..." and the teacher responded, "Which one did your mom use Taylor?" and Taylor pointed to the ladle. The teacher said, "Hmm... Taylor's mom uses a ladle. What does she use it for, Taylor?" and Taylor answered, "aah... aah... I don't know." The teacher asked the pupils, "Does anyone know what a ladle is used for?" When the teacher lifted a sifter and asked one of the pupils, "What is this Lara?" and when Lara looked puzzled, the teacher directed the question to the other pupils by saying, "Has anyone seen this before?" and the pupils answered in group, "No!" These exchanges are the evidence of the interdependence of the social and individual processes using language as a tool for interaction. The interdependence between social and individual processes contributes to learning (e.g., Billet, 2006).

## Co-Construction of Knowledge

The transcribed data provided events, which suggest the reflection of co-construction of knowledge among the learning agents. Teacher-pupil co-construction of knowledge can be inferred when the teacher lifted the bowl of applesauce and said, “This is an apple sauce. Do you know how to make applesauce? Can anyone tell me how to make apple sauce?” One of the pupils responded to the teacher’s questions, “We put apple” and the teacher confirmed, “Yes, that’s right Pierce. We need apple to make apple sauce.” Another pupil repeated the teacher’s response, “Apple to make apple sauce.” The teacher asked the student, “What about water? Do we put water in applesauce?” A pupil responded, “Water and milk?” The teacher said, “No...Not milk, Ryan. Only water. Do we put milk in applesauce?” The pupils answered in chorus, “No!” These excerpts are examples of teacher-pupil co-construction of knowledge within a social context in the form of teacher-pupil mentoring. The nature of co-construction of knowledge is directly related to how the instruction is managed (e.g., Hull & Saxon, 2009). The instruction designed by the teacher in this study provided the room for co-construction of knowledge between the teacher and the pupils.

Some events of pupil-pupil co-construction of knowledge were also traced in the selected interactions. For instance, when the teacher said, “First, we’re going to measure the sugar. You dig deep and level it off! So it is not so sweet”. The videotaped lesson shows that Adriana scooped the sugar without leveling it off. Seeing this, the teacher asked Adriana, “Didn’t you have to level it off, Adriana?” Another pupil, Oscar, said to Adriana, “Level it off like this...like this” and Adriana leveled off the sugar in her cup and said, “Like this?” and Oscar responded, “Yup! Not sweet.” Adriana repeated Oscar’s utterance, “Ok. Like this... not sweet.” These communicative exchanges also reflect pupil-pupil mentoring. Lessons that are designed in such a way that they create opportunity for interaction among students support co-construction of knowledge among learners (e.g., Westbury & Franken, 2013).

Teacher-pupils idea sharing events are also reflected in the interactions. The teacher shared the idea of the taste of applesauce by asking the pupils, “...would you like to taste some apple sauce?” In another event, the teacher also shared with the pupils that oil is not meant for drinking, “Do we drink oil?” and the pupils answered, “No!” On the other hand, pupil-pupil idea sharing events can be traced in exchanges such as, “Oscar, can you tell your friends what we should put next?” and Oscar answered, “Sugar”. The teacher asked, “Why should we put sugar to make applesauce bread? What does sugar taste like?” Pierce responded, “Sweet... so the bread tastes sweet?” The teacher responded, “Yes!” and reinforced the question to ensure the idea from Pierce was shared with other pupils, “Why should we put sugar? Taylor?” and Taylor responded, “Aah... to make it sweet...right?” The fundamental premise of instructional discourses within the realm of the socio-cultural theory is shared knowledge (e.g., Chi, de Leeuw, Chiu, La Vancher, 1994; Hardin & Higgins, 1997; Roschelle, 1992).

## Use of Meaningful and Purposeful Language

The lesson observed in this study involved the teaching of language used in describing a process. As such, the use of language for the purpose of making applesauce bread required that the language be used in a meaningful manner to convey the description of the process and in a purposeful manner to complete the process. For instance, the following excerpt reflects meaningful and purposeful use of language:

*“Everyone is going to do a quarter cup of sugar. To get one whole cup, four people have to measure it. So, these four friends... count four friends and you get one cup. Applesauce bread takes one cup of sugar. Pierce put one fourth*

*of the cup in. Taylor put one fourth of the cup in. Jane put one fourth and Oscar put one fourth of the cup in.”*

In the above excerpt, the teacher directed the task to the pupils by engaging them in the task using a meaningful and purposeful language that each pupil was assigned with a task to complete. Learners may learn best when instructional discourse is geared using meaningful and purposeful language (e.g., Au, 1998).

## **PEDAGOGICAL IMPLICATIONS**

The analysis of the current study shows that the selected lesson provides evidence that the instructional discourse was designed based on the socio-cultural theoretical grounding. Language teachers need to have the knowledge and awareness of language theories so that they may select the right approach that will best suit their students for a particular lesson. By knowing language theories, teachers are aware of the characteristics of instructional discourse when designing their instruction. As such, teachers may produce the most appropriate design of the instructional discourse that gears towards the achievement of their instructional goals of a particular lesson.

## **CONCLUSION**

The findings of this study indicate that the selected lesson reflects the characteristics of socio-cultural instructional discourse in nature. At the end of the lesson, the teacher elicited from the pupils the description of the entire process of making applesauce bread. The elicitation was for the purpose of confirmation check of the pupils' ability to describe the process as they have learned via instructional discourse that is characterized by interdependency of social and individual processes, co-construction of knowledge and the use of meaningful and purposeful language. The pupils were able to repeat the instructions to make applesauce bread. This finding suggests that instructional discourse that is grounded in the socio-cultural theory involving interdependency of social and individual processes, co-construction of knowledge as well as the use of meaningful and purposeful language provides scaffolding in comprehension and input retaining.

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