

MAGNITUDE OF INTERACTION AND COLLABORATION IN TEACHING AND LEARNING

SYAMALA LALITHA

Principal, St. Mary's School, NH 86, Sagar Road, Vidisha, Department of linguistics and languages,
Barkatullah University, Bhopal, Madyapradesh, India

ABSTRACT

Many researchers have explored the constructs of peer interaction including verbal and nonverbal communication. Though they have theorized about the process of children attaining knowledge from peers and the connection between cognitive development and social interaction, we do not know enough about the potential benefits of peer teaching through collaborative interactions. They discussed the words and actions of the children in the context of the experience, but did not delve deeper into the contribution of this communication to the children's participation in the interaction. This study began to address gaps in the literature by looking closely at what happens to the children when they allow another peer to teach them how to complete a task or better understand a concept. It also offered a different perspective for teachers regarding the importance of observing and understanding children's collaborative interactions. The purpose of this article is also to examine peer Interactions and in order to better understand the significance of the teaching experiences. Teachers can use the information from this study to see what is involved when children teach each other, and hopefully to enhance their collaborative teaching experiences with the children that they teach. The constructs of the interactions in terms of verbal and non-verbal communication were analyzed to exhibit various teaching behaviors such as scaffolding and modeling based on the theory of L.S. Vygotsky.

Thus this study contributes to our understanding of the way in which learners individualize the learning space and highlights the situated nature of language learning. It shows how individuals interact with each other and the task, and how talk in interaction changes moment-by-moment as learners react to the 'here and now' of the classroom environment. This analysis leads to a deeper understanding about the concept of peer interaction, and where these collaborative interactions lead children in their process of development.

KEYWORDS: Affect, Assisted Performance Collaborative Interaction, Inter Subjectivity, Learning Opportunities, Peer Oral Interaction, Proximal Development, Quality and Quantity of Language, Situated Nature of Language Learning

INTRODUCTION

Children re-evaluate and reconstruct their understanding of the world in a social manner through their collaborative processes with their peers. When children collaborate on an activity, they form an equal relationship that has a common goal. They communicate their ideas and knowledge both verbally and non-verbally at a level that is eventually understood by all of the children involved (Goncu, 1993). The important transmission of social meanings and information between the children allow them to come to a shared understanding of the goal as well as the process towards the goal. This "inter-subjectivity," as Vygotsky called it, gives the children a joint focus of attention and allows them to share their perspectives together in a comfortable and nurturing environment (Goncu, 1993). As children assist each other in higher

levels of learning, they are working in the zone of proximal development. According to Vygotsky, the zone of proximal development holds functions that have not yet matured in children but are in the maturation process (Vygotsky, 1978). When children assist each other in working within the zone during their collaborative interactions, they are given an opportunity to perform at levels they cannot achieve on their own. As a teacher, I feel that it is important to create a classroom that facilitates ongoing peer interaction. Giving children the opportunity to work with their environment, their peers, and themselves offers endless possibilities in terms of what the children can add to their knowledge. Following Vygotsky, it is important for teachers to encourage children to assist each other in activities and to enhance cognitive understanding during their explorations. They then have the opportunity to work in the zone of proximal development, which is an ideal teaching-learning context. Children can collaborate to foster each other's maturation of skills that are not yet developed.

In an environment where this "natural teaching" occurs, children's minds, communication, and expressions are aroused and brought to life (Tharpe & Gallimore, 1988). Teachers can observe children's collaborations and use the information they gain to better understand the process of children's learning as well as the cues necessary to foster it to the highest level. They can then use this information to promote a higher level of success in their teaching experiences in collaboration with the children. In order for teachers to benefit from observing peer teaching, they must construct an environment that encourages peer collaboration. Cooperative activity settings in a classroom allow children to create their own path towards a specific goal. Independent activity centers are also important. These areas are more flexible and give children a more open area to work and interact. By providing these learning environments in a classroom, children are able to form a cohesive group where they can express their ideas. If teachers create a classroom environment that facilitates children's interactions and collaborations, they can benefit from observing peer models as important facilitators of higher levels of performance and understanding. Teachers will be able to observe the exchanges between the children and reinforce the influence of those exchanges by modeling them in their own interactions with the children. This study would help to illuminate what peer teaching looks like during children's collaborative interactions, and also provide insight into how these interactions assist children on a cognitive and social level. Both the process of the children's collaborative experiences as well as the product in relation to development were of utmost importance in this research in order for me to begin to fully understand the value of these interactions. When observing the process of the children's interactions, it is important to note the communication between the children as well as the cues and responses that caused the children to advance to a higher level of involvement in the activity. When analyzing the product of the children's interaction, it was important to use the knowledge gained from the analysis of the process to see where the children have advanced to developmentally and what they were able to achieve because of the teaching they received from each other. The observations of the entire scope of the children's interactive collaborations fostered assumptions about the contribution of collaborations to children's learning as well as the most effective practices of teaching.

A BRIEF HISTORICAL OVERVIEW OF PEDAGOGY AND CLASSROOM INTERACTION

Second and foreign language teaching in the past one hundred years has been characterized by a quest to find more effective ways of teaching, resulting in the proliferation of many different approaches and methods, some of which have come about due to a change in learners' needs, for example the need for greater oral proficiency, others due to changes in theories of language learning and theories of the nature of language itself (Richards & Rodgers 2001: 3). Some of the major approaches and methods which have flourished during this period are the Grammar-Translation method,

Audiolingualism and Communicative Language Teaching.

The Grammar-Translation method dominated foreign language teaching until the 1940s. Some of its principal characteristics were that the target language was studied with a view to understanding its literature, accuracy was emphasized, grammar rules were analyzed, and this knowledge used to translate sentences and texts. Little or no attention was paid to speaking or listening and the students' native language was used as the language of instruction and as a reference system to aid learning of the second language. (Richards & Rodgers 2001: 5-6). However, this method, which was devoid of a psychological, linguistic or educational theoretical basis, gradually lost popularity, in part due to the fact that greater opportunities for travel resulted in a greater demand for oral proficiency in foreign languages, and in the post Second World War period it was replaced by Audio-lingualism.

Audio-lingualism emphasized the skill of speaking and consisted of individual and choral drilling. No free use of language was permitted as this was thought to cause learners to make errors. Here behaviorism was the learning theory proposed to explain language learning (de Bot, Lowie & Verspoor 2005: 78). Proponents suggested that foreign language learning was a process of mechanical habit formation with a stimulus, (the language being presented), a response (the learner's reaction to the stimulus) and reinforcement, (the teacher's reaction, positive or negative, to the learner's response) (Richards & Rodgers 2001: 56). However, in the 1960s, behavioral theory was challenged by Noam Chomsky who argued that people do not limit themselves to using language they have already heard, but are capable of generating new sentences and patterns. This, combined with a shift in focus from language to learner, and a growing belief in the importance of sociolinguistic aspects of language, led to the emergence of Communicative Language Teaching (CLT) in the 1970s.

CLT, the objective of which is to develop 'communicative competence' (Hymes 1972), has been embraced by practitioners on both sides of the Atlantic as 'the most plausible basis for language teaching today' (Richards & Rodgers 2001: 244). It is believed that activities that involve using language that is meaningful to the learner to participate in real communication and meaningful tasks support the learning process. Teaching activities involve learners interacting in the target language to share information (Richards & Rodgers 2001: 161-165), and it is this interaction which Allwright (1984: 156) considers to be 'the fundamental fact of classroom pedagogy'. So, as can be seen, classroom practices have progressed from Grammar-Translation, where oral interaction was reduced to an absolute minimum, moving on to highly controlled oral practice with Audio linguism, to real communication between teacher and learners and amongst learners, which many teachers strive for in the language classroom today. Such interactions amongst learners in the classroom have become of key importance to teachers and researchers alike.

IMPACT OF PEER CULTURE IN CHILDREN'S INTERACTIONS

Vygotsky stated that learning awakens in children a variety of internal developmental processes that can operate only when they interact with more competent people in their environment and in cooperation with their peers (Vygotsky, 1978). He stressed that children develop in a social matrix that is formed by their relationships and interactions with other children. The social environment is a major contributor to the cognition of children because of the open area of communication that exists that allows them to express and negotiate ideas as well as contribute to each other's understanding. When children model each other, they offer behaviors to each other for imitation, thereby helping each other to see the appropriate behaviors, understand the reasons for their use, and exhibit the specific behaviors in order to

put them into their own understanding. (Tharpe & Gallimore, 1988).

Children live in a social world comprised of different social matrices. Their experience in their social world is not a private activity, but a social event that involves exchange of actions by themselves and other children (Corsaro, 1992). Children enter into social matrices through interaction with other children, namely their peers. Peers are defined as a group of children who spend time together on a daily basis (Corsaro, 1992). The interaction between peers is different from those with adults because of their egalitarian stature (Hartup, 1992). In child/child interactions, children negotiate and follow each other, learning throughout how to enter into and sustain joint exchanges in the environment (Mandell, 1986). They conceive the social world through their experiences in these interactions and establish social understandings between each other that eventually frame continuing social exchange between themselves and others within the matrices. Children have a variety of interactional relationships with their peers that have different processes and developmental effects (Browmwell & Carriger, 1991). The social exchanges in these interactions produce essential social knowledge that the children must understand in order to continue to reproduce and build upon their experiences in their social world. Children together discover a world that is full of meaning and interpret these meanings into their own understanding. These meanings

Become important aspects of their social and cognitive development. The meaning of peer activities in their interactions are linked directly to the social contexts in which they are generated (Corsaro, 1992). In Barbara Rogoff's (1991;1993) discussions of children's social sharing of their cognition through interaction, she argues that as children utilize the materials and the environment around them to interact, they actively observe and participate in activities together. As interactions form between the peers, the children are motivated to participate together and guide each other's efforts. This process of guided participation consists of interpersonal interactions between children who hold mutual roles in a collective activity. Children actively participate and guide each other in the direction of a shared endeavor. Through this active participation children constantly communicate in order to seek a common ground of understanding from which to proceed with.

A better understanding of what actually happens during peer collaboration in guided participation is necessary to take steps towards hypothesizing about the developmental benefits to the children that come from this process. In their study of cultural knowledge and social competence within preschool peer culture groups, Kantor, Elgas, and Fernie (1992) emphasized the importance of communication between children during their social interactions within the social world. Constant communication allows children to coordinate and expand ideas, introduce and explain themes, and produce behavior appropriate to the situation. Children must have a communication strategy in order to be successful at these tasks. They are able to form these strategies based on their level of understanding of each other's cognitive and social position in the interaction. With a high level of understanding, children can participate in "reciprocal involvement," where they construct situations based on their shared definitions and understandings of the situation. Kantor et al. (1992) observed that as a peer culture was created in a preschool classroom, the children became "in tune" with the process of social interaction within the classroom. They did this by reading situational cues in the classroom environment, monitoring their own behavior in anticipation of other's reactions, and coordinating their ideas with those of others. This, quite possibly, was their strategy. This study stressed the importance of communication between children in a group and followed the actions and communications of only one group of children in a classroom. It mostly focused on the props that showed membership in the group as well as how the children interpreted each other's communication and how it contributed to social success or lack of social success within the peer group play.

INTERACTION PATTERNS IN THE L2 CLASSROOM

Oral interactions in language classrooms are both the object of pedagogical attention and the means through which learning takes place. Interactions between students and teacher model their roles and relationships, that is, how they are expected to act as members of the classroom, and early experiences of student. Teacher interaction influences students' perceived roles in future learning situations. Early research on classroom interaction showed that in Western classrooms, typical discourse involved teachers asking students a question, with this being followed by a brief reply by the student and the teacher's evaluation, commonly known as the Initiation-Response-Evaluation (IRE) pattern (Sinclair & Coulthard 1975, cited by Hall & Walsh 2002:188-189). Here the teacher is the expert who decides who will talk, when they talk, how much they contribute and whether these contributions are acceptable or otherwise. In this interaction pattern, the teacher is in control and student interactions can often be limited to brief answers. In 1993 Wells suggested a re-conceptualization of the IRE pattern after observing teacher pupil interactions in science classrooms. He suggested that teachers, instead of using the third part to evaluate students, could use this turn to allow students to expand on, justify or clarify their opinions and called this the Initiate-Response-Follow-Up (IRF) format. This, Wells concluded, enhanced opportunities for learning. Consolo (2000) and Duff (2000), in studies on foreign language classrooms corroborated Well's research and found that, in the IRF interaction pattern, learner contributions were more likely to be validated by teachers, and such follow-ups encouraged learners to express their own thoughts and opinions, thereby drawing attention to key concepts or linguistic forms. Seedhouse (2006: 113-115) suggests that as the pedagogical focus of the lesson changes, so does the interaction pattern. He used conversation analysis (CA) to examine student teacher interactions in the second language classroom and showed that although the extract under examination 'could at first sight be mistaken for a rigid, plodding lockstep IRE [...] cycle sequence [...] the interaction is in fact dynamic, fluid and locally managed on a turn-by-turn basis to a considerable extent.' Jacknick (2011) showed how this interaction pattern can be reversed by students initiating the interaction, teachers responding and students following up on the teacher's response.

However, the central focus of this study is peer interaction, with peers being defined as L2 learners, and although the role of the teacher is significant in managing peer interactions, it is beyond the scope of this study to discuss this in any detail. Peer interaction has been described as having a 'collaborative, multiparty, symmetrical participation structure' (Blum-Kulka & Snow 2009), 18 collaborative, as participants work together towards a common goal, multiparty, as two or more participants are involved, and symmetrical in contrast to the hierarchical relationship between learners and teachers. Traditionally peer interaction was not considered a context for learning but a belief that learner talking time could be greatly increased if learners talked to each other, and the notion that this interaction would allow peers to adopt new conversational roles led to a greater reliance on peer interaction as a context for language practice and use (Philp, Adams & Iwashita 2014:2).

THE FUNCTION OF COLLABORATION

Vygotsky believed that children reconstruct their understanding of the world in a social manner through collaborative processes with their peers. He attributed the benefits of collaboration to the mutual involvement by the children, the equality of the relationship between the children when in a collective group, and the motivation of children to collaborate based on their shared understandings (Tudge, 1992). In particular, when children of mixed knowledge levels interact in collaboration, they are able to communicate on a level that they are able to understand and share with each other.

Vygotsky labeled language “a powerful and strong tool” in children’s interactions because of the shared meanings that form between children as well as the important transmission of social meanings (Tudge, 1992). Within the importance of language, Vygotsky recognized the importance of feedback between the children to promote a high level of joint understanding. As the children listen to and respond to each other’s ideas and contributions to the interaction, they are able to reinforce their understandings, thereby extending their cognitive abilities. Therefore, the feedback contributes to cognitive comprehension because of the joint understanding between the children (Tudge & Winterhoff, 1993). Within these levels of speech exist a higher thought process in the children that represents their individual increasing capacity to organize and order thoughts in an active exchange with the environment (Tenzer, 1990). These speech activities further emphasize the importance of language in the communication between children in their interactions.

ASSISTED PERFORMANCE

Tharpe and Gallimore (1988) utilized Vygotsky’s ideas to stress the need for education to move towards a more collaborative role between students and teachers. They argued that teaching must be redefined as “assisted performance,” where teachers assist the children by providing structure and assistance in their work. Assisted performance also occurs between children when they participate in experiences together by providing information to each other that increases their understanding of the activity. This concept is related to Vygotsky’s term of working within the zone of proximal development. Vygotsky (1978) believed that teaching and learning is best when it proceeds ahead of development because it “awakens and rouses to life the functions that are in the stage of maturing.” These functions lie in the zone of proximal development and can be created for any domain of skill. When teaching is structured under the concept of assisted performance, it works within the zone at points where children’s performance requires assistance. Assistance is best offered in interactional contexts where there is the possibility of generating joint performance. Within a joint performance between children on a task, scaffolding can occur. Tharpe and Gallimore (1988) called scaffolding “the idea role of a teacher.” Scaffolding is similar to behavior shaping but does not involve simplifying a task, but rather holds the task difficulty constant while simplifying the child’s role in the task. The adult or more capable peer simplifies the other child’s role by means of graduated assistance, thereby working to help the child mature those skills to a point where they can perform the task on their own. This form of “natural teaching” involves interactions that awaken and arouse the children’s mind, communication, and expression to a point where they can acquire the desired skill with the assistance. Children can move through the zone of proximal development with assistance by a more capable person or by practicing a skill on their own while in the process of mastering it. This more capable person can be either an adult or a peer.

Most often in children’s social interactions, their peers take this position. A more capable peer works within the joint activity to be responsive to the other child’s level of performance and perceived need. Through this guided participation, the more capable peer offers new information or suggestions to help further the less-capable child’s goal and exhibits behavior for imitation in order to further their practice and understanding. This activity is defined as “modeling,” and offers a wider range of assistance on the part of the more capable peer. Tharpe and Gallimore (1988) stated that in educational settings, peer models are important sources of assisted performance. This coincides with Vygotsky’s view of children developing within their social world and the importance of peer interactions in fostering higher levels of cognitive and social development. This social world is comprised of children’s relationships and interactions where children collaborate towards shared goals. It offers children an open area of communication that gives them the opportunity to express and negotiate their ideas (Rogoff, 1993). Peer models are important facilitators of assisted performance in an

educational setting because teachers are able to observe the children assisting each other, and then can learn from their observations. Therefore, if teachers create a classroom environment that facilitates children's interactions and collaborations, they are able to observe assisted performance between the children. This can then give them clues as to what types of behavior they need to perform when interacting and collaborating with their students that will promote a higher level of skill mastery.

CONCLUSIONS

The findings of this research can be used to foster new teaching strategies as well as implicate future research. When children are given the opportunity to participate in experiences together, they are able to provide information to each other that increases their understanding of an activity or experience. This joint performance between children helps them to mature skills and become self-sufficient in their work. Tharpe and Gallimore (1988) called this concept "natural teaching," and it involves interactions that awaken children's minds to a point that they mature in their knowledge and thinking. By creating a classroom environment that offers activity centres where children are free to interact as they learn, the children will gain more information than if they were only taught by a teacher and unable to interact and discuss with peers. Children's observations of each other in action within their peer culture give them more opportunities to learn from each other.

Teachers must create a classroom environment that facilitates children's interactions and collaborations, and then they will then be able to observe assisted performance between the children. These observations can give them clues as to what types of behaviour they need to perform when interacting and collaborating with their students that will allow them to master skills more effectively. If teachers observe children in collaborative interactions where they are acting as both teachers and learners to each other, they will be able to see how the children communicate effectively as well as how individual children communicate and retain information efficiently enough to be successful learners. This information could give teachers the opportunity to re evaluate their classroom environment and/or teaching strategies to facilitate a more successful classroom culture. Teachers actively initiating and conducting research in their classrooms demonstrates both a need for an insider's look at what goes on between the children in the culture and an attempt to professionalize teaching to a point where it is considered an important contribution to the understanding of children's development. This study is a foreground for more critical analyses of the process of teaching that occurs between children in their collaborative experiences as well as the developmental advancement that occurs in the children at the culmination of the interaction.

Teachers actively initiating and conducting research in their classrooms demonstrates both a need for an insider's look at what goes on between the children in the culture and an attempt to professionalize teaching to a point where it is considered an important contribution to the understanding of children's development. This study is a foreground for more critical analyses of the process of teaching that occurs between children in their collaborative experiences as well as the developmental advancement that occurs in the children at the culmination of the interaction.

REFERENCES

1. Corsaro, W. A. (1985). *Friendship and Peer Culture in the Early Years*. New Jersey: Ablex.
2. Corsaro, W. A. (1992). "Interpretive reproduction in children's peer cultures."

3. Social Psychology Quarterly, 55, 160-177. Corsaro, W. A. & Elder, D. (1990). "Children's peer cultures." Annual Review of Psychology, 16, 197-220.
4. Kantor, R., Elgas, P. M., & Fernie, D. E. (1992). "Cultural knowledge and social competence within a preschool peer group." Early Childhood Research Quarterly, 8, 125-147.
5. Mandell, N. (1986). "Peer interaction in day care settings: Implications for social cognition." Sociological Studies of Child Development, 1, 55-79.
6. Miller, P. (1993). Theories of Developmental Psychology (3rd ed.). New York: W.H. Freeman and Company.
7. Rogoff, B. (1990). Apprenticeship in thinking: Cognitive development in social context. New York: Oxford University Press.
8. Rogoff, B. (1993). Children's guided participation and participatory appropriation in sociocultural activity. In R. Wozniak, & K. Fischer (Eds.), Development in Context: 86
9. Stone, C. A., & Wertsch, J. V. (1984). A social interactional analysis of learning disabilities remediation. Journal of Learning Disabilities, 17, 194-199.
10. Tharpe, R. G. & Gallimore, R. (1988). Rousing Minds to Life: Teaching, Learning, and Schooling in a Social Context. New York: Cambridge University Press.
11. Tudge, J. R. (1992). "Processes and consequences of peer collaboration: A vygotskian analysis." Child Development, 63, 1364-1379.
12. Tudge, J., & Rogoff, B. (1999). Peer influences on cognitive development: Piagetian and vygotsky perspectives. In P. Lloyd, & C. Fernyhough (Eds.), Lev
13. Vygotsky: Critical Assessments: The Zone of Proximal Development (pp. 32-56). New York: Routledge.
14. Tudge, J., & Winterhoff, P. (1993). Can young children benefit from collaborative problem solving? Tracing the effects of partner competence and feedback. Social Development, 2 (3), 242-259.87
15. Vygotsky, L. S. (1978). Mind and Society. Massachusetts: Harvard University Press.