

Role Play: A Productive Teaching Strategy to Promote Critical Thinking

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Abstract

In this article, the aim of teaching experiment was to investigate the usefulness of role play strategy in the development of critical thinking among elementary students. Evidence was collected in a usual classroom context in the form of observation (audio and video recording), questionnaire. The results of such teaching were evaluated through students discourse emerged during student-student and teacher-student interaction and by the change of their thinking analyzed through pre- and post- questionnaire. Findings suggest that role playing is a productive teaching approach in promoting critical thinking in Pakistani context.

Keywords: Critical thinking, role play, teaching approach, design base research, discourse

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Introduction

Henneman and Cunningham (2005) support that critical thinking is considered an essential tool for intellectual development of students in educational institutions. But in Pakistani institutions, the focus of education is to transfer factual information to students rather than involving them into thinking process. Researcher has experienced as a student and teacher that generally in all classroom instructions and particularly in the common Pakistani English classrooms, traditional teaching approaches are used that limit productivity and critical thinking among students. As Akram and Mehmood (2001) argued that most of the school teachers in Pakistan are concerned in completion of course work rather than focusing on new ways of knowledge development.

Teachers mostly used traditional grammar translation method for teaching of English (Nunan, 1999). They mainly focus on structured grammatical patterns which strictly focus on bookish knowledge. Such approach emphasizes in developing reading and writing rather thinking skills among students and students are encouraged to produce correct sentences in terms of skill. The grammar translation method is used by many language teachers in which teachers more focus on rote memorization of syllabus instead of promotion of critical thinking skills. As Choy and Cheah (2009) state that in those schools where teachers lack in the ability to foster critical thinking among students, their students seem poor in rational and logical skills.

Alternative to this approach many teaching approaches such as role play, problem solving and pair work etc., have the potential to involve the students in learning process longer that indirectly promote critical thinking dispositions like open-mindedness, fair-mindedness, perseverance and empathy among students (Bradely & Berg, 2008). These strategies are more focused on process instead of content. They require students' motivation and active participation. It is assumed that role play can develop critical thinking by engaging students in different case scenarios to demonstrate the real life situations and can be productive teaching approach to foster critical thinking among students at elementary classrooms. As Possin (2008) states that role playing can enable students to apply their knowledge in real life context. Role play is considered a viable activity that engages students cognitively and affectively to work together to resolve issues (Jones, 2007; Mooradian, 2008). Hassan (2007) states that students while playing a role interact with different persons, share information collaboratively that remove their ambiguities and inaccuracy of concepts. This strategy not only facilitates to improve communication skills of students through exchanging dialogues with each other (Jeffries, 2007; Mooradian, 2008) but also it plays a significant role in modifying the behavior of students.

It is assumed that presenting the role play strategy for teaching of English at elementary level can be an effective means to scaffold students to learn critically for themselves and for others through different context rather than stick with subject matter only. Paul (2006) argues that role play enables us to reconstruct our own thinking. Similarly, Tripathi (2011) argued that role playing requires the individual to come out of his persona and to understand others frame of mind by approaching their inner world. However, for effective teaching and learning process teachers not only have a command over the subject but they should understand the conceptual, strategic, epistemological and educational ramification of critical thinking. Moreover, in order to instill critical thinking skills among students, teachers should provide an educative environment where students can cultivate their critical thinking skills and critical thinking attitude (Garrison, 2000). In the present study, the researchers provided such environment in the form of role play strategy to develop critical thinking among elementary students.

Methodology

Research Design

The present study is qualitative in nature and used case study approach. Design Based Research (DBR) (Cob, Confrey, Disessa, Lehrer, & Schauble, 2003; Kelly, 2003) was used for intervention because it can lead the researcher to better understand the complex and real situation more appropriately than experimental approaches. It not only helps to understand, document and interpret the educational phenomenon but also changes and improves educational practice and opportunities (DBR, 2003). The productivity of this intervention is studied in the form of the change in student thinking cognitively through the observation of dynamic student-student and teacher-student interaction and through pre and post questionnaire data comparison in experimental classes.

In this article, the researcher reported one aspect, change in thinking of students which is an evidence for the productivity of intervention. In this study class room as a case was studied and investigated in relation to critical thinking. The researcher is taking case study not for the purpose of making generalizations for some population. It brings well designed interventions so it provides the opportunities for teachers and researchers and other stakeholders for collaboration which facilitate them to be actively involved in a real context.

Selection of participants

Myers (2000, p.3) argued that “qualitative sampling can provide the opportunity to select and examine observations of generic processes which are key to our understanding of new or existing theory about the phenomenon being studied”. Purposive sampling technique was used. 4th grade elementary students from one English classroom of a Public school of Lahore were selected for the study. The rationale behind taking Public school is the convenience of the researcher to conduct the present research. Children in grade four usually are ten years old, so by this grade ends children have almost always turned eleven. When discussing the measurement or development of critical thinking this age is extremely important. In order to test or develop critical thinking, one has to take into account this specific age and grade. The reasons for this can be found in Piaget’s theory (1952). According to this theory the last two stages are concrete operational and formal operational. If one looks closely there is an overlap, one stage ends and the other starts. By keeping this in mind it is seen that at age eleven concrete operational ends and formal operational starts. Why is this grade; fourth grade important? The answer to this question lies in the fact that at age eleven children have acquired logical reasoning. Throughout the concrete operational stage children learn to reason systematically, relate things and draw conclusions out of their observations of the social and physical world. So after they end grade four they can reasonably use these cognitive abilities to further generalize the conclusions to the abstract world and these will help outcomes of their hypothetically based thinking. Furthermore, when thinking and specifically critical thinking is looked into, it can be seen according to the Paul-Elder model (2003) that certain standards of thought clarity, accuracy, relevance and logic etc. are required for application on purposes, information and points of view and these together help build personality traits. Hence, by combining both these views it can be found that at age eleven (grade four) children have acquired the cognitive abilities and elements required to base their thinking upon and the foundations for critical thinking have been set.

Tasks: Tasks were developed from 4th grade syllabus book for Intervention (See Appendix A). However, in this study the tasks were included directly relevant to syllabus book because students’ assessment was summative and the assessment instruments were developed according to the scheme of work/Book prepared by the school. Therefore, the school asked me to follow this scheme of work/book very strictly.

Intervention

In the study, role play as teaching strategy is used in English classrooms to develop critical thinking among students. Paul's standards were not only used for developing teaching but as an analytical tool too. The intervention consists of two parts, script and debriefing. Students performed on the given scripts and after that a debriefing session was organized on the basis of Paul's questioning to develop the critical thinking.

Format of role play. As mentioned earlier all tasks are selected from text book of the school planned in the scheme of studies. Prior to class different scenarios were discussed. Teacher briefed students about all roles. Students are divided into small groups. Number of participants in a role varies accordingly. Students were given scenario card with written description of situation. Teacher briefly outlined the situation perhaps rest students will discuss either in a group or in a class collectively. Written description was in English but group discussion was done in native language. 4-6 students were generally required for the role on voluntarily basis. Students were autonomous in selection of their group members. The purpose of the activity was to involve all students in activity for their better learning.

Each small group will identify what additional information they require to either to understand the scenario or to play a role. Teacher, in response will briefly explain the situation but will not disclose whole scenario beforehand. Some general rules were told students to follow during role play activity

- Everyone has the right to pass.
- Students work together to solve problems.
- Students take making mistakes as a natural part of learning.

Teacher provided them all ground rules to follow while acting a role. Students were instructed about not to share any irrelevant information about themselves or others. Teacher announced that every student will participate in the activity. The purpose behind was to maximize the participation of students to benefit the activity. One class period was used for the activity in which 20 minutes were given for role play and the other 30 minutes were left for debriefing session. The other 10 minutes were given to students to discuss their role card with their group members. Teacher decided not to interrupt students from beginning to the end of the activity and provided opportunity to students to dig themselves out of holes with their creation. If one student makes a clear mistake, it is advisable to correct her after the play. Role play is really essential for independent and reflective learning of students. Through the activity students can learn those skills and content that they experienced difficult through traditional teaching methods.

Data Collection instruments

This study is of interpretive nature so the data collection methods are needed to be in accordance with this position. Since the goal of the interpretive research is to "understand the inner perspectives and meanings of actions and events of those being studied" (Anderson & Bums, 1989) and words not numbers are considered as the primary source of data, (Dornyei, 2007). Data was collected from class room discourse and pre and post questionnaire were filled by students.

Observation. Wang and Hannafin (2005) define observation as "the systematic description of events, behaviors, and artifacts in the social setting chosen for the study". Observation is considered an important data collection tool in social research world. Observation methods are useful to researchers in a variety of ways. They provide researchers with ways to check for nonverbal expression of feelings, determine who interacts with whom, grasp how participants communicate with each other, and check for how much time is spent on various activities (Robson, 2003). Through observation a researcher can approach those hidden experiences that cannot be explored through some other methods like interview or questionnaire. In the study, students' classroom activities were video recorded to analyze critical thinking skills (See Appendix A).

Questionnaire. A questionnaire is a means of eliciting the feelings, beliefs, experiences, perceptions, or attitudes of individuals (Bryman, 2001). The research information is attained from respondents normally from a related interest area. Questionnaires are a cost effective method and very useful in such situations when people do not feel comfortable to share their inner feeling, experiences and attitudes through interview method (Farmer, 2006). In the study pre- and post-questionnaires were used to assess the change of critical thinking of students (See Appendix B).

Description of critical thinking Questionnaire. A critical thinking questionnaire was adapted from Paul (1994) model. The purpose of the questionnaire was to analyze the change in thinking of the students if any because of the intervention. Therefore, role-playing can be productive strategy in teaching of English in Pakistani schools at elementary level if these bring change in students' critical thinking. The questionnaire consists of 15 items. It was required by students to select one option at least. One rubric was used to score for each response. This rubric was based on intellectual standards of Paul model's standards (1994) clarity, accuracy, relevance, logic and fairness. The questionnaire was given to the students to answer twice, before and after the intervention and difference between their responses is used to measure the critical thinking change of the students. The research process was started by filling the pre-

questionnaire from all students of English classroom in order to know their level of critical thinking before intervention. After the intervention, the post- questionnaire was given to students in order to know the change in their critical thinking. However, the researcher was present at the time of filling the questionnaires to avoid students' confusion and misunderstanding about items that may affect the reliability of scores.

Piloting of instruments

A pilot study was conducted in another primary public school in order to know the application of methods, their practical implications, some possible problems and complexities of the real context. During piloting:

- The researcher investigated the authenticity and reliability of research tools, specifically. Pre- and post- questioners were used in order to know the response of children, and to make any modification if it is required.
- I examined the practical procedure of research, specifically, the audio and video recording procedure that how it can be located to capture the activities of elementary students in a class room settings.
- Investigated the authenticity and reliability of research tools, specifically, pre- and post- questioners in order to know the responses of children, and to make any modification if it is required.
- Finally, I made the schedule of training interventions, time, space and order of the activities and the content for the actual research procedure.

Piloting helped the researcher to practice the intervention in real life situations.

Data Analysis

In the section, the findings of the quantitative and qualitative data collected for the study were presented. In the qualitative section, the researcher presented discourse analysis of class room tasks. In the study, Paul (1994) intellectual standards were used to analyze the quality of critical thinking of students. The researcher explained the findings about the difference of scores of students in pre and post critical thinking questionnaires in one classroom. The difference of scores of students in pre and post questionnaires was presented by employing descriptive statistics and comparative analysis of questionnaires used in the study.

Quantitative Analysis of critical thinking questionnaire. For the analysis of critical thinking questionnaire, I employed two statistical techniques: descriptive and non-parametric Wilcoxon test. Descriptive analysis simply provides the mean difference of pre- and post- questionnaire administered on students. For the significance and reliability of scores with mean scores a nonparametric Wilcoxon test was used

Descriptive analysis. A computer analysis was conducted to provide simple descriptive statistics of the students' responses. It provided the means and standard deviation of each item before and after the intervention. Difference in mean scores of students showed a change in their critical thinking skills as they improved in all intellectual standards and it can be considered an evidence of the effectiveness of the intervention.

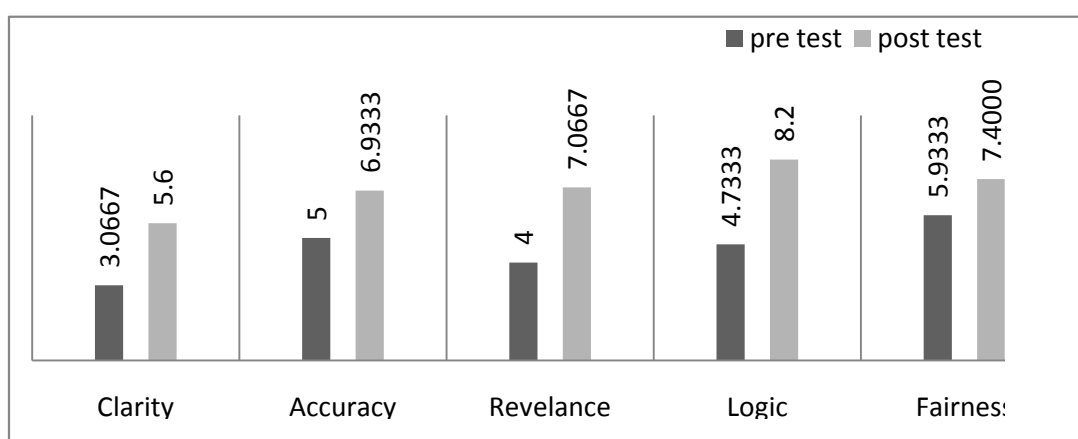


Figure 1. Mean difference of student's performance in pre and post-test of critical thinking skills in role play classroom

Mean difference of pre and post-test shows change in all intellectual standards which is an evidence of the improvement in critical thinking level of the students. Students improve their critical thinking scores in favour of questioning strategy.

Non-parametric analysis. I employed Wilcoxon Signed Rank test not only to present the significant differences in students critical thinking but also to show the consistency of scores with the mean scores appeared in descriptive analysis. The purpose of using both techniques was to make more understanding about the change in the level of critical thinking among students in role play classroom. The difference in the mean scores showed that students improved their critical thinking scores after the implementation of intervention. These results also showed the productivity of role play strategy in promoting of CT among 4th grade

Table 1

Wilcoxon Signed Ranked Test Indicates the Difference in subscales o Critical Thinking in Role Play Classroom

		N	Mean Ranks	Sum of Ranks	Z	P
Clarity(pre)- Clarity(post)	Negative Ranks	0 ^a	.00	.00	-3.45	.001
	Positive Ranks	15 ^b	8.00	120.0		
	Ties	0 ^c				
	Total	15				
Accuracy(pre)- Accuracy(post)	Negative Ranks	0 ^a	.00	.00	-3.30	.001
	Positive Ranks	13 ^b	7.00	91.0		
	Ties	2 ^c				
	Total	15				
Relevance(pre)- Relevance(post)	Negative Ranks	0 ^a	.00	.00	-3.44	.001
	Positive Ranks	15 ^b	8.00	120.0		
	Ties	0 ^c				
	Total	15				
Logic(pre)- Logic(post)	Negative Ranks	0 ^a	.00	.00	-3.50	.000
	Positive Ranks	15 ^b	8.00	120.0		
	Ties	0 ^c				
	Total	15				
Fairness(pre)- Fairness(post)	Negative Ranks	0 ^a	.00	.00	-3.51	.000
	Positive Ranks	15 ^b	8.00	120.0		
	Ties	0 ^c				
	Total	15				

Note. a= (post< pre); b=(post> pre); c= (pre=post)

Wilcoxon test was conducted to evaluate whether participant showed difference in the level of critical thinking scores before and after intervention. Findings indicated a significant difference in clarity ($z=-3.45$; $p=.001$), accuracy ($z=-3.30$; $p=.001$), relevance ($z=-3.44$; $p=.001$), logic ($z=-3.50$; $p=.000$) and fairness ($z=-3.51$; $p=.000$).

Qualitative analysis (Discourse Analysis). The researcher was allowed to record two days in a week for the intervention so the researcher reported the recorded and analyzed episodes only they were 29 (See Appendix A). Moreover, the researcher reported here only those episodes in which role playing strategy was used during intervention. The following Fig 2, shows the shift in discourse trend that what type of discourse emerged by the students and how it changed throughout the intervention. The intervention period spreads over the whole academic term.

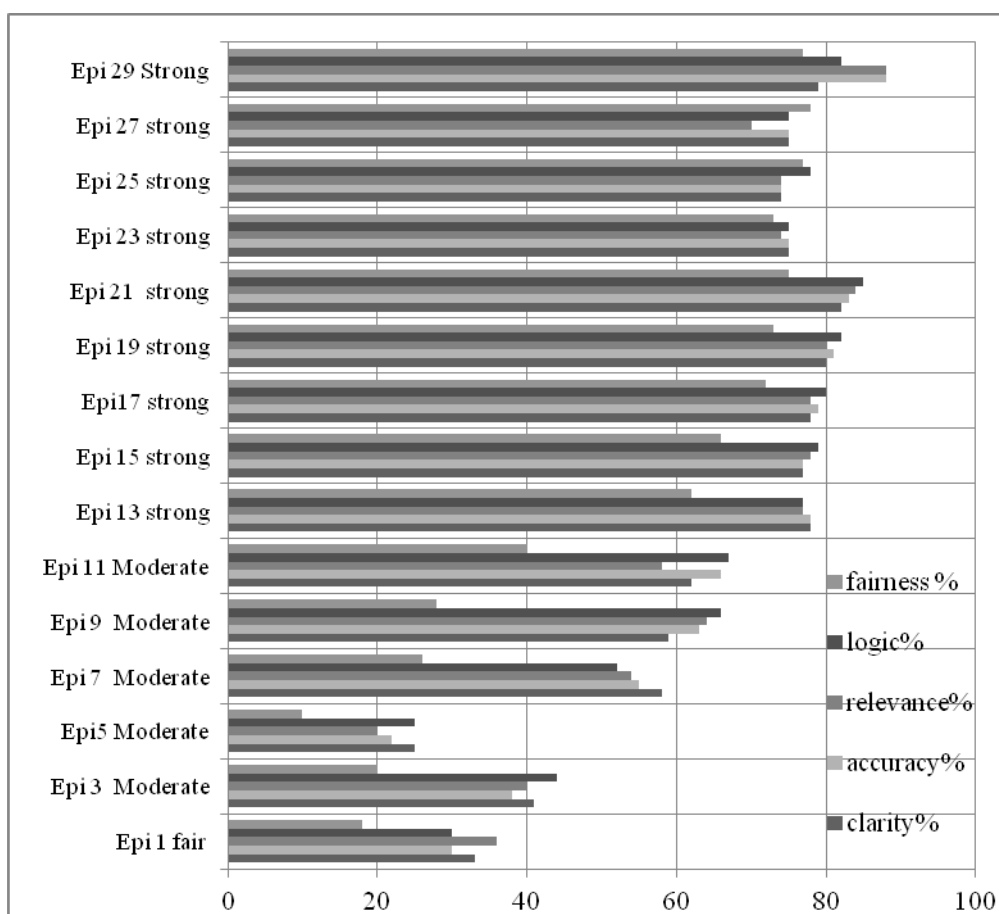


Figure 2 Proportions of discourse types in analyzed episodes in the school

Role play Analysis

In the episodes-1, students played their role on the scenario given by the teacher. The status of this episode was fair. There can be assumed some reasons for fair CT skills exhibited by the students in the episode. First, students showed hesitation while playing a role that can be considered as normal attitude as they first time participating in acting. Second, students may find difficulty in imagining the situation of the role they need to play. Third, they may find shortage of words to explain the situation. Forth, they may be afraid of making mistakes while playing a role. Fifth, they may be hesitant of speaking and acting the role because of peers criticism. Finally, the teacher may not clearly describe the role to the students or may she not support and facilitate the students properly.

The Episode-3 is considered moderate in fostering CT of students. In the episode students appeared more confident in playing the role. They may remove their fear of acting a role in the episode. They showed interest in participation a role in the class. This role play technique improved social skills of students by working together in groups. They learn respect by accepting point of views of others. It can be assumed that experiential learning provided targeted practice and feedback to train skills of learners acting out roles in case scenarios. During the activity, all students (both participants and observers in class) were actively engaged and throughout the episode they followed the norms and ground rules. The role play activity provided active learning opportunities that engage both the effective and cognitive processes of the learners.

In the Episode 13, 15, 17, 19 and 21 students showed strong CT skills. In these episodes students appeared more confident and clear with the role they are expected to play. They shared their opinions fluently by imagining the expected role. They exchanged the dialogue with their peers logically to defend their roles. The objective of this role play was not to follow the specific behaviour demonstrated in play but to encourage the students to think deeply and critically about the "feelings of respect" and to infer the consequences of being disrespectful. After the activity, teacher conducted the debriefing session to know the clarity of concepts among students. Students appeared with clarity and accuracy in answering; it showed that their concern and concentration towards the strategy. During the strategy students logically exchanged the dialogue to present the character as natural as possible. They also showed fair-mindedness by learning to respect for others feelings. Role play strategy helped them in improving their motivation as they participated enthusiastically and confidently. They overcome their shyness and communication skills during dialoguing.

Moreover, in a role play when students were given an opportunity to work autonomously, enjoy learning relationship with peers, developing their sense of competence, it resulted in increased student motivation. This motivation may further foster self-determination that leads to engagement. Moreover, active, collaborative learning and social skills can be considered key components to engagement and motivation. They get more clarity about the importance of rules in daily life by modeling and observing the character. They also learnt how to rebuild their thinking by imagining the role of others and then acting out on it.

After the role play activity, a whole class discussion was conducted to get feedback of students towards the question at issue. This discussion is called debriefing. Students showed more clarity towards the topic by apprehending the importance of rules in life. Debriefings especially when led by instructors, helped students assimilate the meaning of the learning experience and support the development of critical thinking by providing insights on students' interventions, as well as their mistakes. In the Episode E-15, is showing the strong CT skills of students. Role play strategy provided the opportunity to both actors and non-actors of the class to learn from classroom activities.

In Episode 23, and 29, In the role play, students communicated with each other fluently as role play helps them to enunciate their words properly to present their voices when they speak. During role play, students repeat their dialogues through this repetition and by exchanging dialogues with each other increase their fluency of language whatever they use for communication. Moreover, role play activity is ideal for mixed ability groups of students. Those students whose language ability is limited can be given a few lines to read and exchange, in addition, are given the opportunity to use nonverbal cues through body movements and facial expression.

Teacher asked questions in the end of the activity, students showed strong critical thinking in all standards. Teacher asked them to share their personal stories relating to the topic. One student shared a personal story about her friend. Students shared their comments accurately and logically. They showed clarity in understanding the moral of the story and liked the moral with real life examples, for example one student said "teacher once my friend became angry with me and one day she was talking with another girl , I thought she is planning against me and I broke my friendship with her but actually she was not against me" .

It is observed positive aspect of role play that by participating in a role student improved their confidence by talking openly in discussions. They can also remove their ambiguities of question at issue by exchanging dialogue with each other. It may also strengthen their social bonding among each other. It brought them close to each other. Another change observed that students improved their language skills through exchange of dialogues with each other. In the role play students were encouraged to challenge the point of views of others and they also provided rationale for these challenges. Students engaged in critical thinking process and deep understand of the content to further apply in real world context. It was noted during the intervention that whenever, students were exposed to a challenging task, in response, they tried to put relevant and accurate responses to meet the challenge. Role play improves their decision making powers as they were independently taking decisions during the role play activity to meet the specific task requirement. Moreover, students are encouraged to see the relevance of the content for handling real world situations. Role playing age students and help them in exploring and presenting new perspectives by imagining the real life characters by their own.

It provides the evidence that role play technique was proved successful and helpful in developing CT skills among student. Literature suggested that role play help students to learn complex material in a natural way as and these active experiences not only enhance their learning but also improve student's attitude towards peers and teachers as well. Role play provides an opportunity to students to enjoy their natural proclivity for play; they find it fun. Role play also promotes cognitive as well as affective kinesthetic modes of learning. This pedagogy also strengthened all modes of learning, reading, writing, speaking, and listening.

Discussion

This study has explored that the role play strategy is viable and productive teaching strategy in fostering critical thinking among 4th grade elementary students of Pakistan. The article focuses on one classroom taken as case study of one Public school for intervention to explore the effects of role play on student's critical thinking through qualitatively and quantitatively. The findings of analysis showed that the intervention proved effective in promoting critical thinking among students and its potential productivity is evident in the form of moderate and strong critical thinking.

In the first episode students appeared scary to share their views in front of teacher and class fellows. There might be many reasons; low speaking confidence, low self-esteem and first time experience of role playing. As Richard (2005) states that role play provides opportunities to learners to improve their self-confidence and communication skills as communication practice plays a vital role in developing linguistic skills among students. In other episodes students showed moderate and strong critical thinking skills. Students appeared more involved and engaged in completing their tasks. Students seemed more confident and enthusiastic in role playing activities. As Jeffries (2007) and Mooradian (2008) reported that role play strategy facilitate the students to enhance their motivation and learning. Similarly, Miyata (2001) argues that in role play students convey a message through expressions and their expressions show their confidence, stance and gestures.

Joyce (2009) finds that role play activities assist the students to involve in real situation. He argues that, role play serves as vehicle for students to explore their feelings, gain insight of their attitudes, improve their self-confidence, improve their problem solving skills and remove their shyness by interacting with each other. Accordingly, Henneman and Cunningham (2005) argue that role play strategy provide the context where students learn from their mistakes. It was also observed that students learn new knowledge while exchanging dialogues with each other to represent a specific character. As, role play activity involves students in a collaborative and reflective learning experience which help them to learn new knowledge and skills (Lesh, Hoover, Hole, Kelly, & Post, 2000). He further states that no matter course content is important but learning from the process is at the heart of realistic learning. After the role play activity, a debriefing session provides feedback to students that facilitate the students to learn from their mistakes and helps them to construct the new knowledge through real life situations (Jeffries, 2005). Debriefing is usually lead by the instructor and students are expected to assimilate the meaning of learning experience to support critical thinking by showing insight on their interventions and mistakes (Goel, 2012).

Conclusion

The results showed that role play strategy provided productive environment in promoting CT among to elementary students. The role play strategy may be useful at primary level to develop the critical thinking skills to the students in Pakistani context. I suggest, teachers can facilitate their students through using the intervention in their classrooms in promoting more promising change in the level of critical thinking and their attitudes.

References

- Akram, M. & Mahmood, A. (2001). The need of communicative approach (in ELT) in program in teacher training Pakistan. *Language in India*, 11(5), 172-178.
- Anderson, G. (1998). *Fundamentals of Education Research* (2nd ed.). London: Falmer Press.
- Bradley, P. (2006). The history of simulation in medical education and possible future directions. *Medical Education*, 40, 254–262.
- Bryman , A. (2001). *Social research method*. Oxford: Oxford University Press.
- Childs, J. C., & Sepples, S. (2006). Clinical teaching by simulation: Lessons learned from a complex patient care scenario. *Nursing Education Perspectives*, 27, 154–158.
- Choy, S. E. & Cheah, P. K. (2009).Teacher perceptions of critical thinking among students and its influence on higher education. *International Journal of Teaching and Learning in Higher Education*, 20(2), 198-206.
- Cobb, P., Confrey, J., diSessa, A., Lehrer, R., & Schauble, L. (2003). Design experiments in educational research. *Educational Researcher*, 32(1), 9-13.
- Design-Based Research Collective. (2003). Design-based research: An emerging paradigm for educational inquiry. *Educational Researcher*, 32(1), 5-8.
- Farmer, L. S. J. (2006). *What is questioning?*. Paper presented at conference in world library and Information Congress: on questioning. Seoul, Korea. Retrieved from <http://www.ifla.org/Vifla72/index.htm>.
- Garrison, D. R., Anderson, T., & Archer, W. (2000). Critical inquiry in a text-based environment: computer conferencing in higher education. *The Internet and Higher Education*, 2, 1-19.
- Goel, M. (2012) A comparative study of self confidence of single child and child with sibling. *International Journal of Social sciences* 2(3), 89-98
- Hassan, K. A. & Madhum, G. (2007). Validating the Watson Glaser Critical Thinking Appraisal. *Higher Education*, 54(3), 361-383.

- Henneman, E. A., & Cunningham, H. (2005). Using clinical simulation to teach patient safety in an acute/ critical care nursing course. *Nurse Educator*, 30, 172–177.
- Jeffries, P. R. (2005). A framework for designing, implementing, and evaluating simulations used as teaching strategies in nursing. *Nursing Education Perspectives*, 26(2), 96–103.
- Jones, S. (2007). Adding value to online role plays: Virtual situated learning environment. Retrieved from <http://www.ascilite.org.au/conferences/singapore07/procs/jones-s.pdf>
- Joyce, B.R., Weils, M., & Calhoun, E. (2009). *Models of teaching*. Boston: Pearson Education.
- Lesh, R., Hoover, M., Hole, B., Kelly, A., & Post, T., (2000). Principles for Developing Thought-Revealing Activities for Students and Teachers. In A. Kelly, R. Lesh (Eds.), *Research Design in Mathematics and Science Education*. (pp. 591-646). Lawrence Erlbaum Associates, Mahwah, New Jersey
- Mooradian, J. (2008). Using simulated sessions to enhance clinical social work education. *Journal of Social Work Education*, 44(3), 21–35.
- Miyata, C. (2001). *Speaking rules*. Pembroke: Cathy Miyata Pembroke Publishers
- Myers, M. (2000). Qualitative research and the generalizability question: Standing firm with Proteus. *The Qualitative Report*, 4(3), 122-126.
- Nunan, D. (1999). Second Language Teaching and Learning. Heinle& Heinle Publishers. *Educational Psychologist*, 40(1), 1-12.
- Richards, J. C. (2005). *Communicative language teaching today*. Singapore: SEAMEO Regional Language Center.
- Paul, R., & Elder, L, (1994). *Critical Thinking: Tools for Taking Charge of Your Professional and Personal Life* (2nd ed.). Dillon Beach, Calif, USA: Sage Publications
- Paul, R., & Elder, L. (2003). *The miniature guide to critical thinking: Concepts and tools, the foundation for critical thinking* (4th ed.). Dillon Beach, Calif, USA: Sage Publications

- Paul, R. (2006). *Critical thinking: How to prepare students for a rapidly changing world*. CA: Foundation for Critical Thinking Press.
- Piaget, J. (1952). *The origins of intelligence in children*. New York: International University Press.
- Possin, K. (2008). A field guide to critical-thinking assessment. *Teaching Philosophy*, 31(3), 221-228.
- Robson, C. (2003). *Real World Research : A Resource for Social Scientists and Practitioners –Researchers* (2nd ed.). U.K : Blackwell publishing
- Switky, R. (2006). *Simulating the free trade area of the Americas*. Paper presented at the annual meeting of the International Studies Association, San Diego, California. Retrieved from http://www.allacademic.com/meta/p98758_index.html
- Seyyedi, K. (2012). Task-based instruction. *International Journal of Linguistics*, 4(3), 242-251.
- Tripathi, V. (2011). The relevance of Tagore's concept of education in contemporary times. *International referred Research Journal*, 1(17), 107-108.
- Wang, F., & Hannafin, M. (2005). Design-based research and technology-enhanced learning environments. *Educational Technology Research and Development*, 53(4), 5-23.