ABSTRACT

Modern education emphasizes on learner centered and joyful learning which is the need of the hour as well initiated by educationists and education commission. They opine that, children need to keep active throughout the teaching and learning process and encourage self-learning and independent learning. One such emerging practice is constructivist teaching. It has changed the educational practice and converted Passive Learner Centered Environment into Active Learner Centered Environment. Constructivism believes that learning is not encouraged in zero ground but on previous experience and prior knowledge. It is the beginning for construction of new knowledge. In the context of Indian school education, it is rightly accepted as one of the pedagogical practice in National Curriculum Framework 2005 and National Curriculum Framework for Teacher Education 2009. It is also duly adopted in school education and teacher education programme of Karnataka. Apart from constructivist approach, technology and technology integration highly influence on present education system. Technology not used only for drill, practice, tutorial etc. but also for construction of knowledge. In this context, there is a need for technology integration in constructivist practice and to give new framework for learning, teaching as well as for learner centered education. Hence, this research is conducted to study “An Impact of Technology Based Constructivist Teaching on Academic Achievement of IX Standard Students of Bengaluru City”.

The main objective of the study is to compare the effectiveness of Constructivist Teaching and Technology Based Constructivist Teaching on academic achievement of IX standard students in Social Science subject. The present study is experimental in nature with two equivalent group design. In this study purposive sampling technique is used. The sample comprised of 156 students studying in IX standard of two schools (Government and Private School) of Bengaluru city affiliated to state board. Among them, 80 students were from government school and remaining 76 students from private school.

The study is conducted in three phases. They are Phase-I: Pre-intervention Phase, Phase-II, Intervention Phase and Phase-III: Post Phase. In pre-intervention phase researcher took permission from the two schools and collected IX standard social science
syllabus and mid-term examination scores in social science subject. Further, researcher developed the CT (5 E’s Instructional Model + Jigsaw) and TBCT (5 E’s Instructional Model + Jigsaw + Technology components) module for selected units of IX standard social science subject and validated with the help of experts. In both the module ZPD, Scaffolding and Constructivist assessment were considered as basic components. The researcher also constructed the pre-test, post-test, unit-test, rating scale for CT and TBCT, daily assessment sheet and free writing sheet and validated with the help of experts. Phase II comprises of try-out and intervention of CT and TBCT modules. In post phase, researchers administered the post-test, rating scale for CT and TBCT and free writing sheet to get the data.

The study used mean, standard deviation, t-test, correlation analysis, 2 X 2 Factorial design and regression technique and some qualitative analysis to analysis the data.

The study reveals that 1) The students of CT and TBCT group were performed better in their post-test compare to pre-test in government and private school, 2) The students of TBCT group performed far better in their post-test mean scores of academic achievement compare to CT group in both the school, 3) There was no significant difference in academic achievement of students’ taught by CT in government and private school. Whereas TBCT was more effective for private school in improving the academic achievement of students compare to government school, 4) CT and TBCT approaches were not influenced by gender in private school. Whereas, in government school TBCT group was influenced by the gender,5) CT group was influenced by the IQ levels, whereas IQ was not a major factor in improving the academic achievement of the students in TBCT group. 5) Correlation analysis revealed that there was a significant correlation between IQ and academic achievement in CT group but not in TBCT group of both the school. 6) Factorial analysis revealed that there was a significant interaction effect of gender and IQ on the academic achievement of TBCT Group of private school.Conversely, gender and IQ together has not influenced on academic achievement in CT group of government school, private school and TBCT group of government school.
Overall the present study revealed that, CT and TBCT approaches were more effective intervention for improving the academic achievement of students in Social Science subject. On the other side TBCT approach found to be more effective than the CT approach in improving the academic achievement of student in the same subject.

**Key Words:** CT, TBCT, 5 E’s Instructional Model, Jigsaw, TPACK, ZPD, Constructivist Assessment and Impact.