Recent advancements in educational technology have brought a significant change in the field of English language teaching. Scarcity of the review of the literature on the usage of indigenous Computer Assisted Language Learning materials in English language teaching in Pakistan shows the inadequacy of technological facilities, traditional methodologies and the scarcity of scholastic work in the field. Keeping these constraints in mind, computer-assisted language learning materials were developed of the selective lessons from Book I & III of Punjab Textbook board, by the researcher following Multifaceted Pedagogical CALL Model: Computer as Mode (Irshad, 2008). Data were collected through the field notes and semi-structured interviews of twenty ESL students and five English language teachers selected through purposive sampling. Findings revealed that students enjoyed using indigenous Computer Assisted Language Learning materials with a change in the understanding of the text, attitude and motivation while the teachers were found reluctant towards the development and usage of indigenous computer-assisted language learning materials. The study suggests that Pakistani English language teachers should be empowered with technology to meet with the divergent needs of the learners. Keywords: Computer-assisted language learning, English language teaching, independent learning