# LANGUAGE TEACHING THROUGH INDIVIDUALIZED LEARNING AND COMPUTER ASSISTED INSTRUCTION

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**Abstract**

Every teacher knows that no two individuals are exactly alike. In a class room, each student will have needs that he or she wants to meet. The learning styles of different students may not be the same; what motivates them may be different, their understanding level may not be the same e.t.c. It is from this stand point that, the computer assisted instruction and individualized instruction come in. From this angle, this paper looks into the nature of computer assisted instruction and individualized instruction. And also the importance of Computer Assisted Instruction (CAI) and individualized instruction, the characteristics of computer assisted instruction, the obstacle teachers face in their use of computer assisted instruction and individualized instruction. The paper finally advocates for the use of computer assisted instruction in classrooms.

One technology that is revolutionizing today's classroom is the computer. We are witnessing a tremendous growth in the use of information technology in teaching and learning and no doubt the trend will continue and will change the way teachers view teaching.

The applications of computers in the classroom have just started, but it is developing very fast. New applications are being developed. The teacher should start thinking about the future class room and become computer literate. This is the way of the future.

On the other hand, the concept of individualized instruction is not new to education in our school system. On certain situations, students have been given instructional materials such as cassettes and work books that provided the teaching and the students later respond to questions to access the degree of learning that has taken place. The role of teachers in such situations was facilitators to students learning not as the providers of information/knowledge. .

In recent times, with the introduction of micro computer system into schools, individualized instruction is gaining ground again. The teachers of today must not ignore this mode of delivering instructions. Today, many students have become computer literate and several instructional materials are designed to be delivered to students through computer and its allied peripherals. Right now terms like "multimedia, hypermedia, CAI, integrated learning systems are becoming common in the lexicon of educationists.

**What is Individualized Instruction and Computer Assisted Instruction (CAI)?**

Individualized instruction is an approach to teaching and learning that offers flexible choices in.

i. Objectives of learning
ii. Rate of learning
iii. Method (style of learning)

iv. Content of learning --- Efebo (1999)

The extent to which choices are offered determines the degree of individualization in a particular lesson. If a wide variety of choices exist in all four dimensions, then the lesson may be considered fully individualized. A lesson that provides fewer areas open to choice may be referred to as uni or multi dimensional.

Within this broad category, the type of individualization may be further specified. Lessons featuring selection of lesson objectives are known as independent study. Those emphasizing variations in learning rates are known as continuous progress, or flexible paced, those stressing a variety of learning methods or styles are considered multimedia and those offering mainly a term of content are labeled mini lessons'. Naturally, two or more dimensions may be combined in one lesson. For the purpose of this study, much effort will be put into language and computer assisted instructions.

**Literacy Skills in Today's Language Teaching and Computer Assisted Instruction (CAI)**

The decline of reading comprehension skills and motivation to reading is of great concern from both an educational and social perspective. New definitions of literacy coupled with new technology have the potentials to dramatically change the classroom to better serve millennial learners. Furthermore the advent of Computer Assisted Instruction (CAI) programmes might provide teachers with an easier means of meeting the needs of diverse learners. However, because CAI has varied history of success, it is important to gain insight into the knowledge of and attitudes towards CAI from classroom teachers. The quest to develop literate individuals has been pervasive throughout the history of education. In response to the demand of the knowledge based economy and the millennial generation, the definition of literacy has shifted. This shift is in part because literacy is a product and process of a culture (King and O' Brian 2002). With the advancement of technology over the last twenty years, the gap between how teachers view literacy in CAI and process information seem to have grown exponentially. Few definitions of literacy now encompass both reading the word and the world (Hagood, Stevens and Reinking 2002). The idea of a global village is a reality of a millennial student in part because of the recent leap from the industrialized society to the information society (Sasseville 2004). With new technologies, students have the need to assess information, people and places previously inaccessible, expanding the boundaries of the traditional classroom (Leander 2007, Roshelle, 2000). New definitions of literacy are reflected in the increased expectation amongst students to use new technologies for educational purposes as reported by educators (Reid, 2002). Millennia's view technology as a way of life as a means of learning and as extension of themselves rather than simply a tool (government house, 2008). Millennials are a particular unique generational cohort because they are the first generation in history to share similar traits amongst all culture, societies and nations. (Government house 2008) In response to modern challenges, educators are looking for ways to fuse pedagogically sound practices with new technologies while maintaining strong human relationship as the foundation of education (Reid, 2002). Publishers are also creating resources that assist teachers in meeting the needs of all learners through the infusion of CAI in the classroom. Although effectively including CAI in teaching has been a challenge to some teachers, the availability of technology in schools coupled with sufficient teachers support for implementing new technology programmes can greatly assist learners in the language teaching classroom (Richardson Kemp, 2005; Proctor, Dalton and Grisham, 2007).

**Characteristics of Computer Assisted Instruction (CAI) and Individualized Instruction.**

The following are the characteristics of Computer Assisted Instruction and Individualized Instruction:-

1. **It is Interactive:** The student using computer as a mode of delivering instruction responds to instruction presented to him or her by the computer, CAI involves the learner, it is an active not passive instructional medium.
2. **Self-Pacing:** In some individualized courses, the students are allowed to proceed through the courses at rates suitable to their learning habits. They spend only as much time as needed to understand the material. This reduces the frustration or boredom that can occur in teacher-paced or peer-paced learning programmes.
3. **Topic Selection:** Another characteristics of individualized instruction is that learners may within the limits of the objectives, select from a list of topics, those topics they wish to study. These characteristics allows the students to pursue their own interest as much as possible, while attaining the objective of the curriculum.
4. **Variable Sequencing:** Variable sequencing means that students are allowed to proceed through the designated activities in any order. Usually, a minimum of activities must be mastered, only the order is optional,
5. **Learner Initiated Testing:** With learner initiated testing, learners decide when to take test covering specific objectives. These characteristics combined with self pacing gives students control over their rate of study.
6. **Presentation Mode Selection:** With presentation mode selection, students choose the instructional media. For example, if an objective was taught by text reading, filmstrip or Computer Assisted Instructions, (CAI) activity, students would choose the medium by which they would prefer to learn.

**Advantages of Individualized Instructions and Computer Assisted Instructions (CAI)**

Individualization allows for students interest and freedom. Although individualized instruction has this advantage, problems can occur in the management of the students, resources and curricula. Efebo (1999) in his book, Effective Teaching enumerated these points as the advantages of individualized instruction:

- Students frustration caused by material that is either too difficult or already mastered is minimized.
- Concepts are presented at meaningful times because of variable sequencing of activities.
- Self pacing reduces study time. There is no waiting for other students and material already learned is not restored.
- Criterion-reference design allows learners to be evaluated on personal performance criteria rather than according to peer performance. Often, this improves motivation; learners who could not succeed in traditional peer based educational programmes can be successful.
- Learners are more likely to master the objective if they decide when they are ready to take a test.
- Instead of using pre-specified media, learners can select the presentation mode that best suits them.
- Instructions and designers can more easily evaluate and improve the curriculum when it is designed in a modular or segmented fashion.

**Problems Teachers face in Computer-Assisted-Instruction and the Language Teaching Classroom:**

Tillman (2004) notes that several landmark studies indicated including CAI in literary learning yields positive results in reading ability especially for striving readers. The integration of technology in the classroom may be one of the most important new educational frontiers for working with struggling readers and Ell's Proctor, Grisham, Dalton (2007). Some studies suggest positive results are in part, related to students' increased motivation to learn when technology is included in the curriculum (Roshelle, 2000, Tillman 2004). Others indicate that gains are experience because CAI allows students to work more comfortably at their own pace and convenience, in addition to providing access to the superior learning materials, customized tutors as well as automated measures of progress (Soe, Koki and Chang 2000)

However, some researchers have questioned the validity of CAI as an instructional tool due to the limited number of studies conducted as well as the valued research methodologies and methods used to research CAI in the classroom (D. Silva, 2006).

Nonetheless, the increased availability of computers in the classroom and home, in conjunction with the growing influence of an 'infused technology' philosophy necessitates that educators begin to make decisions about the use of CAI in the classroom (Chalin, 2006). Many schools face road blocks on the inclusion of CAI. Funding remains a struggle in schools because CAI is a costly venture. Also purchasing new and relevant software in addition to the hardware to support it is of significant cost. Furthermore, a technical support person who can maintain and update both software and hardware is necessary for seamless inclusion in the classroom (Chatlin, 2006, Balajthy 2007).

Still, teachers are the most prohibitive obstacles to implementing CAI in the classroom. The availability and cost of a professional development for educators is of great concern. Although initial professional development is important, several authors have discovered the positive effects of sustaining and increasing the use of CAI through collaborative coaching/mentorship relationships (Abbott Greenwood, Buzzard and Tapia, 2006). Often, the largest obstacle for a teacher using CAI in the classroom is either the lack of knowledge of teacher training or the absence of teacher training (Balajhy, 2002). In addition, an educator's attitude towards the validity of CAI and his or her personal teaching philosophy can significantly influence the integration of instructional software (Chalin, 2006).

**Computer Assisted Instruction in Language Teaching Classroom.**

According to findings of many researchers; CAI and language teaching are very effective. Wu (2003) compared two grammar instructions, namely traditional output-base and innovative input based instruction by utilizing subjunctive mood in different task to discover which instruction strategy is better. He concluded that it is time for foreign language leaning to become learner-driven and computer-assisted. To examine how technology supports teaching and learning, Chantel (2002) conducted interviews, observations with eight classroom teachers and four English as a Second Language (ESL) teachers. One of the participants in the interview indicated that she chose appropriate software and website which enabled ESL learners to learn and apply English. Lasagabaster and Sieerra (2003) conducted a similar research to examine the attitude of 59 undergraduate students, towards computer assisted language learning software programmes. The study revealed that the students have a positive attitude towards learning with computers.

Nagata (1996), conducted similar studies whose result indicated that computer- based grammar instruction can be more effective than traditional instruction e.g. (workbooks). Nagata (1996) further claimed that self-study computer-based instruction based on natural language processing technology which provides full sentence production exercise and detailed grammatical feedback to learners' error is more effective than the non-computer assisted language learning workbook instruction. Nutta in his study, (1998) also shows that for all levels of English proficiency, the computer based students scored significantly higher on open-ended test covering the structures in questions than the teacher-directed students. No significant differences were found between the computer based and teacher directed students score on multiple choice or filling in the blank test. The result indicates that computer-based instruction can be an effective method of teaching L2 grammar. Nagata (1998) further studied the relative effectiveness of computer assisted comprehension practice and production practice in the acquisition of a second language. The result of the study shows that the output-focused group performed significantly better than the input-focused group for the production of honorifics and equally well for the comprehension of those structures.

With the extension of the presence of computers in learning environments, to include computer-mediated communication (CMC) such as those possible using electronic mail or the internet, we must now devise models for computer enhanced pedagogy to encompass these new interlocutors (Chapelle, 1994). In devising such models, it is important that we keep in mind the theories and findings from mainstream second language pedagogy and modern theories of second language acquisition (SLA).

Some language educators implemented these new medium in the classroom and reported on its linguistic and psychological benefits. (Beauvois, `1992, Beauvois 1994, Chun, 1994). Unlike many individuals CALL applications, CMC seems to promote meaningful human interaction that can foster the language learning process, that is advocates claim that CMC can be an excellent medium within or across classrooms, resulting in collaborative, meaningful and cross-cultural human interactions amongst members of a discourse community created in a cyber space (Salisberry, 1996, Warschauer, 1997, Zhao, 1996).

Finally, realizing the potentials of computer technology, educators have become more interested in its tools to augment language teaching.

**Conclusion**

General learning theories have informed language instructions and materials designers for over three decades (Ellis 1990). As Jones (2000) says "plainly, a new era in computer assisted language learning and individualized instruction has begun through the use of computer. The early unimpressive phase of drill and kill has passed. The fast improvement in technology, the advent of the CD-ROM and especially that of the internet has enhanced the creative learning opportunities of the medium; the web has transformed the internet into a vast public library of text, images, sound, software and any other electronic resources.

**Recommendations**

Computer assisted instruction has been found out to be effective in language teaching/learning by many researchers and the writers of this study. We therefore recommend and make the following suggestions to language learners, teachers, schools and curriculum planners. Students of language should spend more time on computers, doing exercises provided by teachers. Computers themselves

can help students learn something when students are willing to use them wisely and effectively. Besides, teachers should be encouraged to be familiar with the online practice and test system available in the school, departments should also provide teachers with more computer programmes for teachers to use in preparing their digitalized teaching materials for class and on-line use. And finally, schools should have a clear policy to support teachers morally and financially to adopt computer assisted instruction.

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