Computer-assisted Language Learning takes into account Individual Differences

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Abstract. Technology has surely influenced human activities and education is not an exception. Applying technology to the learning is becoming an important educational issue today. The use of Computer Assisted Language Learning (CALL) in the field of education has increased remarkably in recent years due to the swift and modern changes in language software. This study examined whether computer-assisted language learning (CALL) takes into account individual factors? A course ware of CALL which was available in the market was chosen as an example of CALL. It is called Rosetta Stone (version 4). The overall program was considered. A CALL questionnaire was designed and was pilot tested. After that, its reliability was estimated. This questionnaire certainly was reliable, since α =0.91. The questionnaire was administrated among different language institutes.50 in-service teachers, who had MA in TESOL and have worked with this software, were asked to answer to this questionnaire in Esfahan, Iran. After a month, the questionnaires were collected. The statistical result indicated that computer-assisted language learning significantly grant individual variables.

Keywords: Computer, Language Learning

1. INTRODUCTION

The present study proposes to investigate the role of individual factors in CALL. Previous study, regardless of their approach, lack the view point of individual factors in CALL. It has been observed that there is a particularly wide variation among L2 learners in terms of the overall trajectory of acquisition process and the level of ultimate success in mastering a second language (Dörnyei, 2005, 2009). In fact, awareness of this variation in second language attainment success has made individual differences one of the most thoroughly studied areas of second language acquisition (SLA) for the past several decades. Early research studies on good language learners mainly aimed at identifying strategies used by successful language learners. For example, the well-known study of Naiman, Fröhlich, Stern, and Todesco (1978) noted that adult good language learners appeared to use five significant strategies: (a) taking an active approach to the task of language learning, (b) recognizing and exploiting the systematic nature of language, (c) using the language they were learning for communication and interaction, (d) managing their own affective difficulties with language learning, and (e) monitoring their language learning performance. Such early good language learner research aims at unearthing “the secrets of such learners, with the implicit assumption that if these secrets became more widely known, they could be shared with or transplanted to less successful language learners” (Oxford & Lee, 2008, p. 306).

Continuing Naiman et al.’s research work, various other researchers explored the relationships between reported strategy use and language learning outcomes to identify the range and nature of learning strategies employed by good, successful or effective language learners.

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Following this early research, the study of language learning strategies was taken up by a number of scholars in the 1980s. By 1987, Wenden and Rubin were able to compile a rich collection of research studies on "learner strategies," which underlined the important role they played in the acquisition of an L2. Oxford (1989) provided a seemingly straightforward functional definition for language learning strategies - "behaviours or actions which learners use to make language learning more successful, self-directed, and enjoyable" (p. 235) - but when she described the scope of these strategies in her well-known taxonomy (Oxford, 1990), she also included cognitive and affective strategies that involved mental processes rather than "behaviours or actions." In order to eliminate this inconsistency, the 1990 volume simply replaced the phrase "behaviours and actions used by the learner" with the more general "steps taken by the learner," which could accommodate both behavioral and mental steps. Oxford's strategy taxonomy was made up of six strategy classes: cognitive, memory, metacognitive, compensation, affective, and social strategies. This division raises further questions in as much as (i) "compensation" (i.e., communication) strategies are primarily related to language use rather than language learning (and were included on the basis that language use leads to language acquisition), and (ii) cognitive and memory strategies are treated as separate categories of equal status, even though the latter is obviously a sub-class of the former.

An alternative definition of language learning strategies was offered by O'Malley and Chamot (1990), according to which these strategies involve "special thoughts or behaviours that individuals use to help them comprehend, learn, or retain new information" (p. 1).

However, when the authors listed concrete examples of learning strategies, we find an inventory that is not at all dissimilar to Oxford's (1990). O'Malley and Chamot distinguish three main classes of strategy: cognitive, which correspond to Oxford's "cognitive" and "memory" categories; metacognitive, which have a direct equivalent in Oxford's system; and social/affective, which correspond roughly to Oxford's "social," "affective," and "communication" categories. The odd one out in O'Malley and Chamot's taxonomy is clearly the last group, "social/affective strategies," which includes diverse behaviors, such as "cooperation," "questioning and clarification," and "self-talk." These strategies are not related to the cognitive theoretical basis outlined by the authors, and they admittedly represent a "broad grouping"(p. 45), a miscellaneous category that appears to have been introduced simply to accommodate all the strategies that did not fit into the first two types but which could not be left out either. Also, it is interesting to see that in order to eliminate the problematic issue of the relationship between "behaviours" and "thoughts" in their definition, O'Malley and Chamot (1994) followed a strategy similar to Oxford's (1990) by replacing these words with the more general formula of "methods and techniques that individuals use."

In spite of the different emphases and concerns in the approaches by Oxford and O'Malley and Chamot, their strategy systems are highly compatible. If we make three justifiable changes to the two taxonomies - (i) exclude communication strategies from the scope of learning strategies (for a justification, see Cohen, 1998; Tarone, 1981), (ii) combine Oxford's (1990) memory and cognitive strategies, and (iii) separate O'Malley and Chamot's (1990) social/affective strategies - we end up with two matching typologies, each comprising four main classes of learning strategy:

I cognitive strategies, involving the manipulation or transformation of the learning materials/input (e.g., repetition, summarizing, using images);

II metacognitive strategies, involving higher-order strategies aimed at analyzing, monitoring, evaluating, planning, and organizing one's own learning process;
III social strategies, involving interpersonal behaviours aimed at increasing the amount of L2 communication and practice the learner undertakes (e.g., initiating interaction with native speakers, cooperating with peers);

IV affective strategies, involving taking control of the emotional (affective) conditions and experiences that shape one's subjective involvement in learning.

Strategy research also contributed to the growing awareness of cross-cultural differences in SLA, as attested by a collection of papers edited by Oxford (1996) that examined the varying importance of certain strategies across diverse sociocultural contexts.

Educational psychologists in the 1990s took an alternate route. They simply dropped the term "strategy" (which seemed to cause most of the confusion) and focused instead on what was seen as the essence of strategic learning: the learner's conscious and proactive contribution to the enhancement of her or his own learning process. The new term introduced to cover this learner-specific perspective was self-regulation. Self-regulation refers to the degree to which individuals are active participants in their own learning; it is a more dynamic concept than "learning strategy," highlighting the learners' own "strategic efforts to manage their own achievement through specific beliefs and processes" (Zimmerman and Risemberg, 1997, p. 105). The notion of self-regulation of academic learning could also be perceived as a multidimensional construct, including cognitive, metacognitive, motivational, behavioral, and environmental processes that learners can use to enhance academic achievement.

Another learner identifying characteristic which has been recognized as playing a critical role in mediating learners’ target language learning behaviour is motivation. In the most general sense, motivation research addresses the basic question of why humans think and behave as they do; that is, motivation concerns the direction and magnitude of human behavior, or, more specifically (i) the choice of a particular action, (ii) the persistence with it, and (iii) the effort expended on it. In broad terms, motivation is responsible for why people decide to do something, how long they are willing to sustain the activity, and how hard they are going to pursue it.

The traditionally well-known constructs concerning motivation for second language learning are integrative and instrumental motivation (Gardner, 1985). Gardner defines second language learning motivation as “the extent to which the individual works or strives to learn the language because of a desire to do so and the satisfaction experienced in this activity”  (Gardner, 1985, p. 10).

A new orientation to the study of motivation (Dörnyei & Skehan, 2003), however, is more interested in examining learners’ motivational patterns in a given sociocultural or educational environment, adopting an approach that emphasizes how students construe the situation, interpret events in the situation, and process information about the situation (Pintrich & Schunk, 1996).

Graham (1984) reviews assimilative motivation, contrasting it with definitions by Schuman (1978), Brown (1983), and Dulay, Burt and Krashen (1982). All attempt to provide a representation of the variables involved in SLA. Assimilative motivation is claimed to imply “that the learner desires to become an indistinguishable member of the target speech community” (Graham, 1984, p. 76). Further, Graham claims that such motivation is characteristic of learners who have “experienced prolonged con- tact with the target culture” (Graham, 1984, p. 77). However, one characteristic of assimilative motivation is of interest, specially, the claim that the motivation to learn a second language appears to decrease in strength during adolescence.
The research over the last six years or so has indicated that this judgment is unwarranted. Aptitude may well be a central construct when there is a focus on form in SLA, precisely the condition many SLA researchers now call for. If we accept that there is a critical period for second language learning (see Hyltenstam and Abrahamsson, this volume), and that totally meaning-based acquisition is a hazardous undertaking, then aptitude may well represent a constellation of individual differences which bear upon the effectiveness with which learners are able to focus on form when the conditions for doing so are operative (Zoltán Dornyei and Peter Skehan).

Keefe and Perrell define style as: "A complexus of related characteristics in which the whole is greater than its parts. Learning style is a gestalt combining internal and external operations derived from the individual's neurobiology, personality and development, and reflected in learner behavior" (Keefe and Ferrell, 1990, p. 16). This definition can be developed slightly to bring out a contrast between cognitive and learning styles, a distinction sometimes left unclear in the literature. The former can be defined as a predisposition to process information in a characteristic manner while the latter can be defined as a typical preference for approaching learning in general. The former, in other words, is more restricted to information-processing preferences, while the latter embraces all aspects of learning. The major interpretation of cognitive style has been through studies of the constructs of field independence and field dependence. Drawing on the original proposals of Witkin (1962), this view of style has contrasted an analytic predisposition to the processing of information with a preference for a more holistic approach. Field independents are seen as more likely to analyze information into its component parts, and to distinguish the essential from the inessential. Field dependents, in contrast, are more likely to deal with information structures as wholes, or "gestalts." At a personal level, field independents are portrayed as aloof, preferring to find solutions to problems for themselves. Field dependents, in contrast, are sociable and work well in groups. Each of these putative preferences could have advantages in language learning: the former should link with a capacity to analyze linguistic material, and perhaps learn systematically; the latter to engage in communicative language use, and to "talk to learn." The FI/D concept, in its original form, also includes, besides such an analytic predisposition, related contrasts between internal and external frames of reference, and between different interpersonal competencies (Chapelle and Green, 1992). So far, we have restricted the discussion to cognitive style. But the concept of style also applies to other domains, and to other applications than processing information. In terms of domain, Reid (1995), for example, goes beyond the cognitive domain to include such areas as sensory preference and personality. Regarding the sensory domain, she proposes auditory, visual, kinesthetic and tactile preferences.

Oxford and Anderson (1995) take an even broader perspective. They state that individual learners have a composite of at least 20 style dimensions, of which eight seem to be particularly important for L2 learning:

I global vs. analytic;
II field dependent vs. field independent;
III feeling vs. thinking;
IV impulsive vs. reflective;
V intuitive-random vs. concrete-sequential;
VI closure-oriented vs. open;
VII extroverted vs. introverted;
More generally, they argue that learning styles have six interrelated aspects: cognitive (concerning the preferred or habitual patterns of mental functioning), executive (concerning the degree to which the person seeks order, organization, and closure, and manages his or her own learning process), affective (concerning values, beliefs, and attitudes that influence what an individual pays attention to in a learning situation), social (concerning the preferred extent of involvement with other people while learning), physiological (concerning at least partly the person's anatomically based sensory and perceptual tendencies), and behavioral (concerning the extent to which someone actively seeks to satisfy his or her learning preferences).

Kolb (1984) proposes that there is an ideal learning cycle, which starts from concrete experience (CE), moves to observation and reflection upon that experience (RO), then conceptualizes the experience at a more abstract level, as a result of the reflection (AC). The learner then uses the results of the conceptualization to achieve a deeper level of understanding.

This conceptualization is used to transform the underlying experience in such a way that the learner acts and "experiments" to change the nature of experience (AE). After this, the entire cycle is repeated, with (the newly arrived at) concrete experience setting the whole process in motion again.

Research into learner autonomy, in particular, has shown that learning behavior may be influenced by how one conceptualizes language learning in general (Pennington, 1999). Drawing attention to the importance of attitudes in effective language learning, Wenden (1991) argues that language learning attitudes comprise cognitive and affective components. The cognitive component involves beliefs or perceptions about the objects or situations related to the attitude. The affective component is the degree of like or dislike, approval or disapproval associated with the attitudinal object, such as the teacher and the class. McCombs (1990) further suggests that attitudes about the learning environment can influence the effort students put forth in pursuit of learning tasks on a self-directed basis. Similarly, how learners conceptualize the language learning process may influence how they actually approach the task of learning the language. Consequently, languages learning attitudes or beliefs are the basis of how learners approach their learning, the strategies they employ, and their success in language learning (Oxford & Lee, 2008; Riley, 1996).

Several individual factors have been studied in order to assess their role in L2 development. They include; age, sex, anxiety, empathy extroversions and risk taking. (Kumaravadivelu 2006). Of all the learner variables that most influential are those related to the learners emotions, attitudes & personalities. The affective domain plays a larger role in developing SL skills. The following are some of the effective factors that influence the development of second language skills.

Self-concept: students who have positive self-concept are more likely to make the effort & to overcome the negative effect of take risking activity.

Attitude: If learners believe that knowing the language will be beneficial to them in the future, they will be more willing to expend the necessary time & energy to develop communication skills.

Internal versus external locus of control: Researchers have divided the reactions into two personality types: internal & external. Internal attributes success or failure to their own ability & effort. Externals consider success or failure to be determined by outside factors over which they have little or no control.
Other variables which you may know include; perseverance, introversion, extroversion, interest, needs, background knowledge, cognitive style, learning skills, learning strategies (aptitude, intelligence), social context, sense of belonging, language and social shock. (Kenneth Chastain, 1998).

In the second half of the 20th century, education technologies were one of the most developed areas in the world. Computers, which have entered the school life in the late 1950s in developed countries, are still developing day by day throughout the world. Today, they have become more powerful, faster, easier to use, more convenient and cheaper, and they can process and store much more data, as well. Equipment such as hard disks, CD ROMs, laser disks and printers used with computers have also developed rapidly. Using these, a computer program can handle sound, pictures and video along with characters. At the end of the 20th century, the computer-mediated communication and the Internet have reshaped the use of computers for language learning. Computers are no longer a tool for only information processing and display but also a tool for information processing and communication. Learners of language, with the help of the Internet, can now simultaneously communicate with others or speakers of the target language all over the world. Nonetheless, As Dhaif (1989) claims computers can never replace the 'live' teacher, especially in language teaching, where the emphasis is on mutual communication between people. It can just play a role in teaching the second or foreign language as an aid to the teacher. Today, there is huge amount of foreign language materials next to the traditional grammar book and dictionary. These materials include course books, workbooks, programmed courses, cue carts, charts, newspapers, posters, picture cards, and cut outs, and so on. These are supplemented by other media, such as radio, television, slides, OHP, video tapes, games, toys, realia, as well as computers, multimedia and the Internet.

The abbreviation CALL stands for Computer Assisted Language Learning. It is a term used by teachers and students to describe the use of computers as part of a language course. (Hardisty & Windeatt: 1989).

Computers have been used for language teaching since the 1960s. The history of CALL can be roughly divided into three main stages: Structural /behavioristic CALL, communicative CALL, and integrative CALL (Warschauer, 2000).

Structural /behavioristic CALL was conceived in the 1950s and implemented in the 1960s and 1970s. Informed by the behaviorist learning model, this mode of CALL featured repetitive language drills, referred to as drill-and-practice. The best-known tutorial system, PLATO, ran on its own special hardware consisting of a central computer and terminals and featured extensive drills, grammatical explanations, and translation tests at various intervals (Ahmad, Corbett, Rogers, & Sussex, 1985).

Communicative CALL emerged in the late 1970s and early 1980s, at the same time that behavioristic approaches to language teaching were being rejected at both the theoretical and pedagogical level, and when new personal computers were creating greater possibilities for individual work. Communicative CALL stressed that computer-based activities should focus more on using forms than on the forms themselves, teach grammar implicitly rather than explicitly, allow and encourage students to generate original utterances rather than just manipulate prefabricated language, and use the target language predominantly or even exclusively (Jones & Fortescue, 1987; Phillips, 1987). Popular CALL software developed in this period included text reconstruction programs (which allowed students working alone or in groups to rearrange words and texts to discover patterns of language and meaning) and simulations (which stimulated discussion and discovery among students working in pairs or groups).
Integrative CALL shifts to a perspective which seeks both to integrate various skills (e.g., listening, speaking, reading, and writing) and also integrate technology more fully into the language learning process. In integrative approaches, students learn to use a variety of technological tools as an ongoing process of language learning and use, rather than visiting the computer lab on a once a week basis for isolated exercises.

While the changes in language teaching are often characterized in terms of a polar shift from structural to communicative, we usually perceive a more complex overlapping of three theoretical movements—structural, cognitive, and socio-cognitive—in the recent history of language teaching (Kern & Warschauer, 2000). Because each of these three theoretical perspectives has influenced how computer technology has been used in language teaching, we will illustrate these three major theoretical approaches to CALL briefly.

A. Structural-behavioral Approaches to CALL

The earliest CALL programs, consisting of grammar and vocabulary tutorials, drill and practice programs, and language testing instruments, strictly followed the computer-as-tutor model. Developed originally for mainframe computers in the 1960s and 1970s, though still used in different variations today, these programs were designed to provide immediate positive or negative feedback to learners on the formal accuracy of their responses. This was consistent with the structuralist approach which emphasized that repeated drilling on the same material was beneficial or even essential to learning.

B. Cognitive Approaches to CALL

In line with cognitive/constructivist views of learning, the next generation of CALL programs tended to shift agency to the learner. In this model, learners construct new knowledge through exploration of what Seymour Papert has described as “microworlds”, which provide opportunities for problem-solving and hypothesis-testing, allowing learners to utilize their existing knowledge to develop new understandings. Extending a tradition of thought popularized by John Dewey and Alfred Whitehead that learning occurs through creative action, Papert (1980) and his colleagues at the M.I.T. Media Laboratory flip the earlier computer-as-tutor metaphor on its head, seeing computers as things to be controlled by, rather than controlling learners. The computer provides tools and resources, but it is up to the learner to do something with these in a simulated environment (e.g., in Papert's Turtle Logo program, learners program a turtle to carry out their instructions).

C. Socio-cognitive Approaches to CALL

With socio-cognitive approaches to CALL we move from learners’ interaction with computers to interaction with other humans via the computer. The basis for this new approach to CALL lies in both theoretical and technological developments. Theoretically, there has been the broader emphasis on meaningful interaction in authentic discourse communities. Technologically, there has been the development of computer networking, which allows the computer to be used as a vehicle for interactive human communication. Computers can play as mediation tools that shape the ways we interact with the world (e.g., accessing and organizing information through databases, spreadsheets, and word processors). Word processors, for example, facilitate the invention, revision, and editing processes of writing, allowing quick, easy (and reversible) reshaping of text. The purpose of programs based on this socio-cognitive approach was to allow the learner to reconstruct the original texts and, in the process, to develop their own constructions of language. Computer networking allows a powerful extension of the computer-as-tool, in that it now facilitates access to other people as well as to information and data.
To summarize, the computer can play multiple roles in language teaching. It originated on the mainframe as a tutor that delivers language drills or skill practice. With the advent of multimedia technology on the personal computer, it serves as a space in which to explore and creatively influence microworlds. And with the development of computer networks, it now serves as a medium of local and global communication and a source of authentic materials. This multiplicity of roles has taken CALL far beyond the early "electronic workbook" variety of software that dominated the second and foreign language marketplace for years and has opened up new ways in foreign language teaching.

There are three main uses of computers in language teaching: (Canale and Barker 1986):

• The computer as TUTOR. In theory this means the computer is used to teach the learner to play the role of master. It allows the learner to decide about the what, where and when of the learning activities. However, in practice the learner is rarely allowed such control when tutor software is designed or used.

• The computer as TOOL. When it is used in this way, it is not supposed to teach or drill, but merely to facilitate the learner's activities. But most software available for this purpose has not been designed for use as a tool. The result is that this mode of use does not produce significant results.

• The computer as TUTEE. If the computer is used in this way, the learner is supposed to teach the computer something (cf. the reasons for developing LOGO). In principle, the learner has control over the learning process. In practice, the learner can be so overwhelmed and confused that this use is also not realized.

Undenvood applied the principles of communicative language teaching to CALL and established a number of premises for "communicative CALL" (1984: 52-54):

1. Activities will focus on acquisition practice (using forms to communicate) rather than learning practice (forms themselves).

2. Grammar will always be implicit (built into the lesson or activity), though explicit grammar explanation will be available on a call-up basis.

3. Activities should require students to take a creative action in the target language (or to produce a response based on comprehension of an utterance) rather than manipulating prefabricated language.

4. Activity feedback will not aim at correcting or evaluating each response: "raise expectations for competence in communication, and lower expectations for structural accuracy" (Terrell 1977: 325).

5. Activity feedback will avoid telling students' incorrect answers just as "wrong": Provide help by means of appropriate and well-formed models or give hints.

6. Activities and instructions should be written in the target language. CALL software should try to communicate with the learner without reverting to the student's mother tongue, though some help or explanations can be made available on a call-up basis.

7. CALL activities should be flexible, not based on the principle that every stimulus has one and only response.

8. CALL activities should allow students to explore the subject matter: there is no predetermined material of any sort, but rather an environment in which discoveries can be made.
9. CALL activities should create a context in which using the target language feels natural (on screen: student(s)-machine interaction and off-screen: student(s)/teacher-student(s) interaction).

10. CALL software is not an electronic book (CALL activities will aim at doing things books cannot).

11. CALL software should be fun and attractive (try to avoid drill exercises or exams).

The above principles may have been drawn up some twenty years ago, but in their essence they remain sound, even though research has built on them through the years of experience, and not just in language learning (Mayer 2001).

According Poul Bangs & Pascual Cantos (2004) We could begin deliberation by asking why, if Underwood's principles held good so long ago, we are not seeing a wealth of well-constructed language learning programs available for us today. In our view there are many factors at work, which include, though not exclusively, and in no particular order of priority:

- The lack of interest on the part of publishers in many areas;
- Too much re-invention of wheels in "cottage industries;"
- Technological leaps leaving pedagogy in their wake (remember Interactive Video, early versions of Windows, and perhaps now Interactive Whiteboards, all of which demanded special approaches to design);
- Funding problems development was often assisted as a one-off, with no follow through financing, and no re-usability of the results;
- Poor access to good training in instructional design techniques;
- The lack of good design and authoring tools;

Nevertheless we feel able to make some assertions as to what might constitute the place of good CALL in a language learning environment, and offer these principles, which we will spend a little while analysing in greater depth:

1. CALL is not an issue separate from other language teaching and learning
2. CALL should put the learner at the centre of the process
3. CALL exists for learners, not teachers
4. CALL should be adaptive
5. CALL should harness technology, not serve it
6. CALL should engage and motivate the learner
7. CALL should respond to research
8. CALL should be focussed
9. CALL should respond to a perceived need
10. CALL should help learners learn better. (Poul Bangs & Pascual Cantos, 2004)

Most of these issues have been discussed and we do not need to dwell in depth on them or on their implications (Bannerti et al. 2003; Chapelle 1997; Dunkel199 1; Hubbard 1988; Johnson 1999; Ng and Olivier 1987; Salaberry 1996; Warschauer 1996, etc.).
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According to Ms. Julie Prathibha (2010) CALL had some advantages in her classes which included:

1. Communication is perceived as authentic.
2. Students have time to plan their utterances
3. Student's language proficiency was much better than in normal classroom communication. Students get meaningful reading practice. The web impacts on resource-based learning and access to real world information.
4. The level of reliability and currency of information adds to authenticity of learning tasks, with realistic and up-to-date information. Students' anxiety and inhibitions about using the L2 decreases.
5. Students' participation in the classroom activities becomes more equal.
6. Participation of shy learners as well as slow learners increases. Students' vocabulary and their diction improve and increase. As the four skills in them have developed skills in oral language production are enhanced.
7. Students’ grammatical competence increases.
8. Students become more independent learners.
9. The student-teacher relationship is altered in such a way that the teacher becomes fewer dominants and more of a guide or a facilitator.
10. Students’ cross-cultural knowledge and understanding increases.
11. Videos, pictures and sound presented by computers stimulate sight and hearing simultaneously in a way traditional resources do not.
12. Using computers to learn English can help learners to become more disciplined. The computer can bring support to the learning strategies acquired by students.
13. Teachers' responsibilities include giving students the strategies they need for working on their own.
14. Computers with CD-ROM may provide considerable input and a wide variety of registers and accents.

There are some disadvantages of CALL according to Ms. Julie Prathibha (2010):

1. Computers discourage some students and teachers
2. Many students and teachers reject a change from the traditional classes.
3. It is very difficult for some students to get used to being independent learners.
4. Indisciplined students have problems working with computers.
5. Computers do not provide some important features of real communicative exchanges.
6. Computers are machines and they need maintenance, something, which may require interruptions to class or study time.
7. Computers do not provide the sense of cooperation that can be found in a class with a teacher. Reading from computer screens is about 25% slower than reading from paper. Even users who don't know this human factors research usually say that they feel unpleasant when reading online text. As a result, students don't want to read a lot of text from computer screens:

All in all, CALL, is the result of advancement in computer technology, which has made it possible to simultaneously present the different modalities to the language learners. Despite the fact that most studies on the use of CALL and point out to its approaches, principles, advantages and disadvantages and …. There are still some areas such as individual, socials, cognitive, effective, biological and instructional factors have the greatest impact on teaching and learning that can be as new findings in related field. That is the reason we should be cautious about the wild claims made on the extent of CALL application in L2 learning. In light of these views, it becomes clear that more research is required to shed more light on the effect of different variables on CALL. The major purpose of the present study is to find out how does CALL grant individual factors? Does CALL take into account individual factors / variables which are important in developing second language & skills? Which variables have the greatest impact on CALL?

The major purpose of the present study is to find out how does CALL grant individual factors? Does CALL take into account individual factors / variables which are important in developing second language & skills?

2. RESEARCH METHODOLOGY

The study was conducted by investigating a courseware which is named Rosetta Stone through a CALL questionnaire and looking in to its different sections in order to take into account individual factors on CALL.

3. PARTICIPANTS

Participants were 50 in-service teachers (females, males) working in English language institutes of Isfahan. Iran. All in-service teachers' native language is Farsi. Their major is TESOL. The subjects are between 27-34 years old who have M.A degree in their major. They were asked to participate in the research in spring 2014.

4. MATERIAL

Rosetta Stone is proprietary computer-assisted language learning (CALL) software published by Rosetta Stone Inc. that is used in this research as a sample of CALL products. The software uses images, text, sound, and video to teach words and grammar by spaced repetition, without translation. Rosetta stone calls their approach Dynamic Immersion (a term which they have trademarked).

The software's title and logo allude to the Rosetta Stone, an ancient stone slab on which the Decree of Memphis is inscribed in three writing systems. In a Rosetta Stone exercise, the student pairs sound or text to one of several images. The number of images per screen varies.

For example, the software shows the student four photographs. A native speaker makes a statement that describes one of the photographs, and the statement is printed on the screen; the
student chooses the photograph that the speaker described. In another variation, the student completes a textual description of a photograph.

In writing exercises, the software provides an on-screen keyboard for the user to type characters.

Grammar lessons cover grammatical tense and grammatical mood. In grammar lessons, the program firstly shows the learner several examples of a grammatical concept, and in some levels the word or words the learner should focus on are highlighted. Then the learner is given a sentence with several options for a word or phrase, and the student chooses the correct option.

If the student has a microphone, the software can attempt to evaluate word pronunciation.

Each lesson concludes with a review of the content in that lesson, and each unit concludes with a milestone, which is a simulated conversation that includes the content of the unit.

The program immediately informs whether the answer is right or wrong. Through the Preferences screen, the student can choose whether a sound is played or not when an answer is clicked. At the bottom of the window, the program shows all the screens for the current lesson. If all answers for that screen are correct, the button for that screen turns green. If some answers are correct, the border of the button turns green, but the screen number itself turns orange. If all answers for a screen are wrong, the button turns orange. This applies to all lessons except review and milestone lessons, which are treated as tests. In those lessons, the buttons for each screen all remain brown. In all lessons there is a button in the bottom-right of the window which can be hovered over to display how many answers are correct, wrong or have not been answered. Each time an answer is clicked, one point is given. At the end of the lesson, the total number of correct, wrong or skipped answers is shown alongside the percentage of correct answers for that lesson. If too many questions were answered incorrectly, the program suggests the learner should retry the lesson.

To use Rosetta Stone, a student needs the Rosetta Stone application software and at least one level of a language course. The latest major version of Rosetta Stone is Version 4 TOTALe which is used in this research. Version 4 is backward compatible with all language courses developed for Version 3.

Rosetta Stone released Version 4 TOTALe on 14 September 2010. TOTALe is a software suite comprising Rosetta Course, Rosetta Studio, Rosetta World, and TOTALe Mobile Companion. Users of the Rosetta Studio software subscribe to a service those videoconferences them with a language coach. Rosetta World is a social gaming service.

With Version 4, Rosetta Stone adds stricter copy protection measures. Most language courses are divided into three levels.

In Rosetta Stone versions 3 and 4, a language pack has 3–5 levels. The lessons differ by language. Compared with Version 2, Version 3 lessons focus more on conversation and less on grammar rules.

In level one, each unit has a 30-minute lesson and some activities that are five to fifteen minutes long. The units are: Language Basics, Greetings and Introductions, Work and School, and Shopping.

Starting from simple vocabulary such as basic greetings, "boy", "girl", "man", and "woman", moving up through numbers, comparisons, adjectives, nouns, verb conjugation, and telling time. Each unit also contains a ten-minute simulated conversation called a "Milestone". Level 1 takes up to 24 hours to complete.
Level 2 offers a total of about twenty-four hours designed to teach the user to "navigate your surroundings as you build on the vocabulary and essential language structure in Level 1." More grammar is covered, including past and future tenses, and imperative forms. Topics such as giving directions, writing letters, workplace terms, apologies, discussing emotions, and criticizing art are also covered. As in Level 1, each unit is followed by a ten-minute "Milestone". The four units in Level 2 are Travel, Past and Future, Friends and Social Life, and Dining and Vacation.

Level 3 offers instruction designed to help "connect with the world around you by building on the language fundamentals and conversational skills you developed in Levels 1 and 2." In addition to expanding upon grammar learned in Levels 1 and 2, Level 3 teaches more in depth vocabulary, including botanical terms, culinary terms, how to express detailed opinions and judgments, and how to discuss politics, religion, and business. As in the first two levels, each unit contains a ten-minute "Milestone" activity in which the user participates in a simulated conversation. The four units in Level 3 are Home and Health, Life and World, Everyday Things, and Places and Events.

Levels 4 and 5 teach more complex sentence structures, higher verbal tenses, and more irregular verbs, and introduce more vocabulary.

Most language packs only have three levels. The five-level programs are: American English, Russian, British English, French, German, Italian, Mandarin Chinese (v4.0 only), Spanish (Latin America), and Spanish (Spain).

As far as I considered, there was no CALL individual factors questionnaire, so I decided to create my own questionnaire.

The way questions are phrased is important and there are some general rules for constructing good questions in a questionnaire which I attempted to observe such as: Use short and simple sentences, Ask for only one piece of information at a time, Avoid negatives if possible, Ask precise questions…

The Likert scale was chosen which consists of statements that their respondents are strongly agree, agree, neither agree nor disagree, strongly disagree or disagree with. The questionnaire was piloted before using. In statistics, Cronbach's alpha (alpha) is a coefficient of internal consistency. It is commonly used as an estimate of the reliability of a psychometric test for a sample of examinees. Generally, a questionnaire with α =0.8 is considered reliable (Field, 2009). Hence, this questionnaire certainly is reliable, since α =0.91.

5. RESEARCH DESIGN

In the study, the questionnaire was given to teachers who have worked with Rosetta Stone. The teachers were informed how much time it will take to complete the questionnaire and impress upon them the importance of their honesty, so the questionnaire was administrated in person. Whenever participants came across a problem, they were explained in their first native language. Finally, they were asked if they have any comments or questions and then kindly thanked them for their time.
6. RESULT

Some evidence from the questionnaire results (see Appendix) is relevant to the present study. The questionnaire asked the informants to indicate which individual factors on a list of 22 items would involve in the use of English in CALL. On a five-point Likert scale, they indicated how important or unimportant individual factors would be in CALL. Only those factors selected by more than 20 informants are discussed.

For statements regarded as strongly agree, 34(68%) of the 50 respondents selected No. 7. The next most frequently chosen items were No. 15 (33/66%), No.22 (32/64%) and No. 9 (30/60%). Additional items selected by more than 20 of the 50 informants were: No.1, 2, 3, 4, 5, 6, 8, 9, 10,11,12,13, 14, 16, and 17,18,19,20.

Under "agree," the most frequently chosen items were No.12, 13, 16 (22/44%). Additional items selected by more than 20 of the 50 informants were No.6,16.

The general tendency revealed in the questionnaire data is that individual factors would serve as important purposes in CALL.

To test hypothesis 1, which predicated that CALL takes into account individual factors, t-test was used. The result of one-sample test grants that individual factors are considered in CALL.

H0: μ = 0      CALL does not take into account individual factors.
H1: μ ≠ 0      CALL take into account individual factors.

Table 1. One-Sample Test.

<table>
<thead>
<tr>
<th>Test Value</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>result</td>
<td>14.621</td>
<td>49</td>
<td>.000</td>
<td>Lower</td>
</tr>
</tbody>
</table>

According to table the result is 14.62 and –p =0, so null hypothesis will be rejected. In the other word, these factors have a significant effect on CALL.

7. DISCUSSION

To sum up, computers make excellent teaching tools, especially in teaching languages in any aspect such as: vocabulary, grammar, composition, pronunciation or other linguistic and pragmatic communicative skill. Many students need additional time and individualized practice to meet learning objective, so computer offers students self-instructional tasks that let them master on language that they are learning.

There are certain factors that should be considered in language teaching and learning. Nevertheless, learning of language not only focus on biological, effective, cognitive factors such as: age, sex, self-concept, attitude, perseverance, motivation, need, interest…, but also social and instructional factors like: interpersonal skills, comprehensible input, practice… Of course, all these cannot be achieving unless CALL follow certain principles in language learning.

Clearly then, nearly all in service teachers believed in existence of individual factors in CALL. As matter of fact, the result suggested that individual differences influence in CALL. This clearly supports the necessity of variables involved in the development of second-language skill.
in CALL. Common to all version of CALL these variables have the greatest impact on and all CALLs try to make the effects of these variables more positive and more productive.

Today computer-assisted language learning continues in its classic form, as is seen in the huge range of course book and other teaching resources based on the principles of CLT. In addition, it has influenced many other language teaching approaches and methods that subscribe to a similar philosophy of language teaching. Therefore, there is clearly a need for further research in this area such as: What are some instructional issues in CALL? What are some cultural issues in CALL? Which one works better in educational system CALL or MALL (mobile-assisted language learning?)

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Computer-assisted Language Learning takes into account Individual Differences

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8. Appendixes

**Frequency Table**

<table>
<thead>
<tr>
<th>row</th>
<th>question</th>
<th>SD</th>
<th>D</th>
<th>N</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>In general, male and female learners can take advantages of Rosetta Stone software</td>
<td>5 (10%)</td>
<td>4 (8%)</td>
<td>3 (6%)</td>
<td>11 (22%)</td>
<td>27 (54%)</td>
</tr>
<tr>
<td>2</td>
<td>Learners are more likely to prepare and to participate. They tend to improve their self-concept.</td>
<td>8 (16%)</td>
<td>0</td>
<td>3 (6%)</td>
<td>17 (34%)</td>
<td>22 (44%)</td>
</tr>
<tr>
<td>3</td>
<td>Rosetta Stone provides a safe and secure environment where learners feel relaxed and are able to talk freely and behave confidently.</td>
<td>6 (12%)</td>
<td>4 (8%)</td>
<td>4 (8%)</td>
<td>9 (18%)</td>
<td>27 (54%)</td>
</tr>
<tr>
<td>4</td>
<td>Learners are active participants in their own learning.</td>
<td>2 (4%)</td>
<td>6 (12%)</td>
<td>8 (16%)</td>
<td>11 (22%)</td>
<td>23 (46%)</td>
</tr>
<tr>
<td>5</td>
<td>While learners learn a unit they feel that they are a good, worthwhile person, so they behave confidently.</td>
<td>1 (2%)</td>
<td>5 (10%)</td>
<td>6 (12%)</td>
<td>10 (20%)</td>
<td>28 (56%)</td>
</tr>
<tr>
<td>6</td>
<td>Learners with a variety of attitudes are more willing to expend the necessary time and energy to develop communication skills.</td>
<td>0</td>
<td>3 (6%)</td>
<td>8 (16%)</td>
<td>21 (42%)</td>
<td>18 (36%)</td>
</tr>
<tr>
<td>7</td>
<td>Learners show great perseverance by building their skill little by little.</td>
<td>1 (2%)</td>
<td>1 (2%)</td>
<td>2 (4%)</td>
<td>12 (24%)</td>
<td>34 (68%)</td>
</tr>
<tr>
<td>8</td>
<td>The vocabulary and topic parts that are important to each student are associated with learner’s interest/need.</td>
<td>0</td>
<td>1 (2%)</td>
<td>5 (10%)</td>
<td>16 (32%)</td>
<td>28 (56%)</td>
</tr>
<tr>
<td>9</td>
<td>Learners who know their own language well and those who have had experience of learning second languages can take advantages of Rosetta Stone.</td>
<td>0</td>
<td>1 (2%)</td>
<td>3 (6%)</td>
<td>16 (32%)</td>
<td>30 (60%)</td>
</tr>
<tr>
<td>10</td>
<td>Learners with different cognitive styles can benefit from it.</td>
<td>1 (2%)</td>
<td>0</td>
<td>6 (12%)</td>
<td>18 (36%)</td>
<td>25 (50%)</td>
</tr>
<tr>
<td>11</td>
<td>There are different types of tasks that correspond to all learners’ learning strategies.</td>
<td>2 (4%)</td>
<td>3 (6%)</td>
<td>9 (18%)</td>
<td>12 (24%)</td>
<td>24 (48%)</td>
</tr>
<tr>
<td>12</td>
<td>Rosetta Stone is aware of the differences in aptitude among learners.</td>
<td>1 (2%)</td>
<td>0</td>
<td>6 (12%)</td>
<td>22 (44%)</td>
<td>21 (42%)</td>
</tr>
<tr>
<td>13</td>
<td>The level of anxiety about the exercise is decreased.</td>
<td>2 (4%)</td>
<td>2 (4%)</td>
<td>3 (6%)</td>
<td>22 (44%)</td>
<td>21 (42%)</td>
</tr>
<tr>
<td>14</td>
<td>Authentic language tasks attempt to involve learners in communication activities that resemble real language situation.</td>
<td>1 (2%)</td>
<td>1 (2%)</td>
<td>7 (14%)</td>
<td>14 (28%)</td>
<td>27 (54%)</td>
</tr>
<tr>
<td>15</td>
<td>Learners do not find it difficult to do tasks and they feel low anxiety.</td>
<td>2 (4%)</td>
<td>2 (4%)</td>
<td>2 (4%)</td>
<td>11 (22%)</td>
<td>33 (66%)</td>
</tr>
<tr>
<td>16</td>
<td>Learners are motivated by tasks</td>
<td>1 (2%)</td>
<td>3 (6%)</td>
<td>1 (2%)</td>
<td>22 (44%)</td>
<td>24 (48%)</td>
</tr>
</tbody>
</table>

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which cause them to behave in a particular way.

17 Learners have a great willingness to achieve native-like competence and they are eager and enthusiastic in tasks they do.

18 Learners are willing to take risks, to guess in order to create novel utterances.

19 A learner is able to put himself in another’s place.

20 While individuals make progress in learning language, they are able to deal with ambiguous stimuli.

21 While individuals improve their learning language, they lose their inhibition. Individuals build defenses to protect their ego.

22 As an individual makes progress in lessons, s/he will be an authority on English and knows a lot about it.

Questionnaire

Dear colleague

The present questionnaire is a part of a research on Rosetta stone software.

Read the following statements and put a check mark in the box which best describe whether you agree or disagree with each statement. So, answer as honestly as you can. Thank you for your collaboration!

SA= Strongly Agree,
A= Agree,
N= Neither agree nor disagree,
D= Disagree,
SD= Strongly Disagree
Computer-assisted Language Learning takes into account Individual Differences

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Learners feel that they are a good, worthwhile person, so they behave confidently.</td>
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<td></td>
<td></td>
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<tr>
<td>15. A learner is able to put himself in another’s place.</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. While individuals make progress in learning language, they are able to deal with ambiguous stimuli.</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. While individuals improve their learning language, they lose their inhibition. Individuals build defenses to protect their ego.</td>
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<td></td>
<td></td>
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