Developing a Software of Crossword Puzzles as a Learning Tool for Tamil Vocabulary Development

Mr.M.Somathasan,
Assistant Lecturer in English, SLIATE, Sri Lanka
and
Dr.R.Saranya,
Associate Professor, CAS in Linguistics, Annamalai University

Abstract

It is not denied that Tamil language should speed up its journey through the channel of information technology; especially through the internet as mostly all the fields including language teaching and learning in the world are now being computerized because they will be stagnant without the gear of computer technology. As far as the educational domain is concerned, the virtual learning plays a dominant role to acquire the adequate knowledge in a language. There is no second talk of the statement that *a language should not be alive unless it is spoken*. To speak a language continuously its vocabulary should be flourished by a learner. Since vocabulary is a key basis on which reading achievement depends, various vocabulary acquisition techniques have become pivotal. Among the many teaching approaches, traditional or otherwise, the use of crossword puzzles seems to offer potential and a solution for the problem of learning vocabulary. If learning is to occur, learners or students must be motivated to learn (Calahoun, 1980).

This paper attempts to develop a software which is a collection of crossword puzzles; and it can help the students improve the vocabulary or word power in Tamil language, meanwhile promoting the active learning and increasing their motivation for learning in the ICT set up.

Key words: information technology, internet, virtual learning, crossword puzzle, active learning, software

Introduction:

The now-generation can be typically known as *Net-Generation* as the dominance or effect of internet and information communication technology has spread into every nook and corner of all domains, especially into the environment of language learning. Based on this, Ramaley and Zia (2005) stress the importance of learning environments that should be social, active, and learner-centered for all learners. As far as the active learning is concerned, this paper discusses the uses of a learning game, i.e. *Crossword Puzzle* as a learning tool of vocabulary and instructional method to engage the students in active learning of Tamil vocabulary. Some recent research has indicated that games "seem to comprise all elements for a learning environment in which students are stimulated to use deep learning strategies" (Vos et al., 2011). The crossword puzzle is a well-known game that can be easily handled by a learner or implemented in a classroom. As learning theories generally point out the need for immediate feedback and student involvement for ideal learning situations (Hequet, 1995; Foreman, 2003), learning games have been reported to provide just this type of situation. Cruickshank and Telfer (1980) point out those games provide a responsive environment where learners immediately know how they are doing. Further, Sugar and Takacs (1999) report that games create an interactive learning experience by transforming inactive learning material into learning episodes where the learners are active players and participants. Thus, there is no doubt that the learning game, crossword puzzle, is an effective learning tool to motivate the learners to increase their vocabulary or word power in the language.

Objective:
After doing numerous crossword puzzles a learner will become familiar with words of Tamil language he or she never knows before.

Crossword puzzles:
Crossword puzzles are a group of words that are arranged horizontally and vertically. They are designed this way, so that each of the words will cross at least one other word through a letter that is common to both. Today, most of the daily newspapers and many magazines include a crossword puzzle for the good side of those who like to develop their power of vocabulary in their language. Crossword puzzles are one of the best educational tools for learning new words, synonyms, antonyms, etc. as a part of enriching one's language. Not only the learners but are the teachers and professors in the field of education also getting more involved in solving crossword puzzles to boost their word power. There is no question that crossword puzzles have been in education for many years. The reason most people enjoy it, is because it is considered as a great exercise for the mind. Believe it or not, crossword puzzles give others a better impression of you. Anyone who notices you solving a crossword puzzle regularly, believe that you are brilliant.

The history of crossword puzzles:
Crossword puzzles originated in English. The first "word-cross" in the United States was published in a supplement to the *New York World* in 1913, although similar puzzles have been around in different forms since Egyptian times. In 19th century England, they were aimed mostly at a juvenile audience, and did not become a craze for adults until Simon and Schuster printed the first book of them in the US in the 1920s, when they then took on the familiar name "crosswords". Most attention to crossword puzzles has always been paid in Britain, where a new variation of the crossword puzzle developed in the 1930s, bringing a completely new element into the game. The puzzle's popularity continued to build throughout the rest of the twentieth century.

Educational value of crossword puzzles:
From an educational point of view, it is clear that crossword puzzles are an effective way to help learners maintain and improve their vocabulary, spelling skills, word attack skills, and knowledge of many miscellaneous tidbits of information more quickly. This is because the tedium of memorization is removed and learning happens naturally with a relaxed mind set and in a pleasant environmental setting. Learning definitions can be especially boring with the repetition necessary for memorization. Fortunately, it is one of the easiest tasks to set to a game. That's why, crosswords puzzles are an excellent way to make learning with meaning more fun. Solving crossword puzzles tends to contribute to a learner's self esteem. For many people, their expertise in solving crossword puzzles plays a role in their social interaction with other people.

- **Crossword puzzles promote letter and word recognition.**
  Using crossword puzzle as a tool for learning vocabulary words helps learners or children first learn word definitions, and second, proper spelling of words, i.e. correctly deciphering a crossword requires exact spelling, which for students may mean practicing dictionary skills. This is because they spend quite a bit of time looking at the words and definitions while they are determining which word goes where. Thus, spelling is very

important in the puzzle because if a word is misspelled, it will not fit with adjacent words. As a result, students playing crossword puzzles pay closer attention to spelling and become perfect spelling bees.

- **Crossword puzzles encourage thinking.**
  When students work on crossword puzzles as part of the learning process, they are actually memorizing words and meanings without realizing it. Due to the nature of a crossword puzzle, students often read the definitions several times while thinking of potential answers. As a result, when they finally choose the correct vocabulary word, it is repeated to ensure that the letters fit properly in the available blocks. Not only does this process encourage repetition in thinking, but also, it leads to memorization.

- **Crossword puzzles build confidence in learning.**
  Learners or students, who get frustrated easily while studying, often find that crossword puzzles help them build confidence and release them from the frustration. Because they are games, students do not build anxiety as in traditional learning. Additionally, when students succeed with word games, they feel more secure about learning in general and become more comfortable with reading, writing, and especially promoting vocabulary.

- **Crossword puzzles add variety in learning definitions.**
  Variety is the spice of life and learning vocabulary words is no exception. Repeating words can get boring and dull, but adding a little variety helps keep students interested and engaged in their learning process. Throwing or paying the light of concentration in word games like crossword puzzles is an excellent way to promote variety. However, it is highly better to introduce games only after students have been exposed to new and challenging words. Waiting until they are somewhat familiar with difficult words will increase the likelihood that they will solve the crossword puzzles with confidence easily.

Crossword puzzles as a learning tool:
Crosswords puzzles are a game which makes the learners a good adjunct to the repertoire of active learning. One major advantage is that most students associate crossword puzzles with game playing and recreation. Hence, incorporating crossword puzzles as a learning activity can help to make the subject more fun and to increase students' engagement with the vocabulary. For instance, look at the following simply created Tamil crossword puzzle:

Across
1. Kids play with this.
3. This is the opposite word for the word which starts with 1(down)
4. Song
5. One of the stars

Down
1. This is the similar word to (a) in the Tamil proverb, "களவும் (a)………. மறு".
2. It is a place where games are played.
4. Sex

By solving the above crossword puzzle, the learners get encouraged and motivated to develop the Tamil vocabulary, and especially when they do it in a computer system the learners get the knowledge successfully through a new learning style of *teachnology*, i.e. the combination of *teach* from *teaching* and *nology* from *technology*, formed in the process of word formation, *Blending*. Further, creating a crossword puzzle involves other very useful skills for learning process such as imagination, creativity, reasoning, logical thinking, written communication, and researching. Students are able to benefit from creating their own crossword puzzles. By doing so their creativity increases in word power. As a result, they develop their vocabulary. Even if a computer system generates the words, allowing students to input definitions is a great way to get new information in front of them in a different format. Additionally, swapping puzzles with learning-mates creates an element of competition and fun in solving the puzzles, which adds interest to the learning process. Further, Puzzles are great for helping learners to internalize words instead of simply cramming for a test. As a result, learners can enjoy the learning process and are provided with opportunities to have a bit of fun.
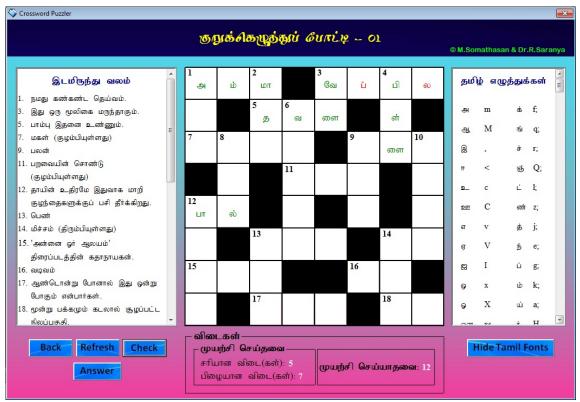
Ultimate benefits of crossword puzzles:
1. Crossword puzzles draw upon one's general knowledge, recall of words defined or suggested by short definitions or pieces of information, and spelling ability. Through study and practice, a person learns some useful strategies and can make considerable gains in crossword puzzle solving expertise. Doing a crossword puzzle is like doing a certain type of brain exercise. In recent years, research has provided evidence that such brain exercises help to refrain from the dementia and Alzheimer's disease that are so common in old people.
2. Crosswords have been found to increase students' confidence in their ability and understanding. The satisfaction derived from successfully solving one clue encourages students to continue toward the completion of the puzzle.
3. Crossword puzzles have been reported to be a useful tool for reviewing and reinforcing concepts. They provide students with an opportunity to evaluate their level of knowledge and identify the areas of further study in a funny way. In fact, students using the crossword puzzles as a study aid have been shown to score higher than those who did not.
4. Crossword puzzles expand vocabulary, stimulate the mind, encourage logical thinking, and help to improve retention of facts and association of concepts.
5. Solving a crossword puzzle can help students build a vocabulary of technical terms and not only improve their understanding and knowledge of their subjects, but stimulate more students' curiosity and interest about their subjects, as well.
6. Puzzle solving is a much more active type of learning, and will engage students with the material more than passive types of review techniques do. Crossword puzzles also have the advantage of appealing to different learning styles. Visual learners often have strong puzzle-solving skills, and feel great satisfaction when they complete one. Auditory learners enjoy step-by-step reasoning, so they also benefit from the sequential steps of completing a crossword. Even kinesthetic learners enjoy the multi-task strategies required to solve a crossword. In fact, crossword puzzles have the benefit of being customizable to study content and to be student-centred.

7. Finally, the learning tool of crossword puzzle developed for this paper will help the learners improve the Tamil vocabulary to great extent in order to be rich in Tamil language and to use in their academia and day today life.

Methodology:

Crossword puzzles are one of the best educational tools for learning words of a language, in this paper the Tamil vocabulary. Those in the field of education such as students, teachers, and even professors are getting more involved in solving crossword puzzles. To test the knowledge of Tamil lexicons, a learning tool named as *Crossword Puzzler*, has been developed for this paper. The tool consists of many crossword puzzles and is very user-friendly as the meaning of *Left to Right* and *Up to bottom* statements can not only be easily identified, but they have also been collected from the school Tamil text books, magazines, and dailies. Further, while testing the knowledge of Tamil vocabulary by this tool, the learners will be able to get the required knowledge of Tamil words for the effective communication and the process of black and white, i.e. *writing*, and to develop it by raising the Tamil literacy as much as possible. Moreover, the computer language, VB6, is used to develop this virtual crossword puzzle tool for the learners of Tamil language.

Sample visual of the developed tool:

Conclusion:

Games like crossword puzzle can satisfy the learning needs of the pragmatic, active and reflector learners. Crossword puzzles can be utilized as a nontraditional teaching method. The use of crossword puzzles seems to offer potential and a solution for the problem of learning vocabulary, in this case the Tamil lexicon. They can not only help the students improve vocabulary knowledge, but also increase their learning motivation. They can be used in any course to provide a fun and interactive method for reinforcement of cognitive information in

students. Today, most of the daily newspapers as well as many magazines include a crossword puzzle. It is one of the best educational tools for enriching the vocabulary of a language. Thus, there is no doubt that the developed learning tool based on Tamil crossword puzzles will attract the learners by its user friendly nature and instigate them to learn Tamil vocabulary or words on their own effectively.

References:
Leigh E, Kinder, J. (2000) *Learning Through Fun and Games*. Sydney, Australia: McGraw Hill.
Childers, C. D. (1996). *Using Crossword Puzzles as an AID to Studying Sociological Concepts.* Teaching Sociology.
Crossman, E., and Crossman, S. M. (1983). *The Crossword Puzzle as a Teaching Tool.* Teaching Psychology.
Weisskirch, R. S. (2006). *An Analysis of Instructor-Created Crossword Puzzles or Student Review*. College Teaching.
Robertson and Howells (2008). *Computer game design: opportunities for successful learning*. Computers and Education.