

## EVALUATING ENGLISH LANGUAGE TEACHING SOFTWARE FOR KIDS: EDUCATION OR ENTERTAINMENT OR BOTH?

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### ABSTRACT

The purpose of this study is to offer a critical consideration of instructional software designed particularly for children. Since the early 1990s computer applications integrating education with entertainment have been adopted on a large scale by both educators and parents. It is expected that through edutainment software the process of learning is going to be colorful and fun and that learners can acquire information without work and serious study. The aim of this article is to draw attention to possible harmful effects of this wholesale adoption of edutainment software, particularly to introducing learning “as a bitter medicine that needs the sugar-coating of entertainment to become palatable” (Resnick, 2004). It argues that it may be time to examine critically the educational potential of such software together with the advantages and disadvantages it might bring to the instructional process. The discussion focuses, after a brief definition of edutainment, on five English language teaching software packages for kids which are randomly selected from the market. They are examined through McKenzie’s (2000) Assessment Chart to see to what extent the implementation of edutainment software has been able to match their promises. The study calls for critical awareness of how instructional software is impacting education and at the same time for the engagement of teachers in exploring the computer applications that shape classroom learning and teaching.

**Keywords:** Educational Technology, Instructional Software, Edutainment

### INTRODUCTION

There is no question that information and communications technologies play very important roles in today’s educational settings. However, the question of how to adapt it into different learning environments still remains and concerns both educators and parents. There is a widespread expectation that these technologies will change the nature of instruction and provide the learners with cognitively challenging, attractive materials. Through the use of Internet, multimedia etc., learners can engage in individualized instruction where they can investigate and learn concepts and content to meet their specific needs. It is widely believed that because students are highly motivated through rich, interesting and engaging learning experiences, their understanding of the subject is enhanced. Thus students cannot help but pay attention to information that is presented in dynamic and memorable ways.

A number of empirical studies done in the field of Computer-assisted Language Learning (CALL) has also contributed to our understanding of how computers are used within particular classroom settings (Laufer & Hill, 2000; Chun & Plass, 1996; Sullivan & Pratt, 1996; Warschauer & Healy, 1998; Kern, 1995). Studies reveal several benefits for students related to the general use of technology for foreign language learning. These include improved motivation, self-concept and mastery of basic skills, increased student centered learning and engagement in the learning process (Stepp-Greany, 2002). As technology adoption for language teaching and learning continues to grow, studies confirm that learners often display improved thinking skills, recall and active language processing (Dywer, 1996; Weiss, 1994). Historical accounts of how technology has been used in second language learning and teaching also offer further insights into the role that computers have played in the language learning classroom (Salaberry, 2001, Chaudron, 2001).

However, it seems that a great deal of work has usually centered upon how ICTs are used in the classroom, not taking the “why” into account. As Okan (2003) stated, a critical perspective on computers is lacking among modern educators. There are numerous reasons for that, according to Bloom and Hanych (2002), for example:

- It is believed that computers enhance learning.
- Educational software can motivate students to study topics deeply.
- It is beneficial for teachers too.
- Education has entered the digital age. It is inevitable.

- Digital learning has dynamic, interactive and visual features that cannot be provided by printed materials.
- Hypertext and interactive feature of the digital materials allow learners to develop a nonlinear thinking skill.
- Distance education also suggests solutions to many problems of educational systems.

All these reasons can be considered valid and sufficient to welcome technology to education, but that should not prevent us from having a critical look at it. We believe it is time to draw attention to possible harmful effects of adopting this seemingly harmless technological fad. The purpose of this study is, of course, not to disparage the use of technology in education but to stimulate a debate on including fun elements in educational software and to examine critically the educational potential of edutainment software together with the advantages and disadvantages it might bring to the instructional process. At this point, CEIT (Computer Education and Instructional Technologies) departments can be regarded as the right platforms for such a debate as they are responsible for training people well-equipped in both instructional software design and teaching and learning theories as well as computer programming.

### EDUTAINMENT

Recently, the definition of educational technology has evolved and included the term “edutainment” which is coined to mean the integration of “education” and “entertainment.” Buckingham and Scanlon (2000) define it as a hybrid genre that relies heavily on visual material, on narrative or game-like formats, and on more informal, less didactic styles of address. The term “edutainment” promises fun and learning together. The educational software packages and websites for kids frequently use slogans suggesting effortless and entertaining learning that makes kid learn without any pain:

“The place where you can have fun and learn” <http://www.englishforkids.com.ve/>

“Would you like your child to learn English in a fun-filled and friendly atmosphere?”

<http://www.englishforkids.net/efkeng/index.htm>

“Yes. You can have real fun with the English language” <http://www.fun-with-english.co.uk/>

One of the inevitable implications of such promises is, as Olson and Clough (2001) draw attention to, learners’ demand for effortless learning: “...one of the most pervasive outcomes of technology use is that students acquire the belief that learning should not be a struggle and that good teaching will make learning enjoyable and easy.” The tendency of learners for learning without any struggle forces the teachers and the educational software designers to present the instruction with full of fun elements like games, animations and visuals etc.

In fact, developing effective materials in any medium that facilitates learning for young children requires an understanding of the principles of how children learn. Malone and Lepper (1987), for example, provide valuable guidance with their list of key characteristics of a learning game: **fantasy, curiosity, challenge and control**. Haugland (1992) suggests that educational software must be open and exploratory to increase children’s creativity and allow them to choose and control the activity until completion. The design of educational software will also adapt itself to the progress of the child. As the child interacts with the programme the system will respond and provide feedback (Hohmann 1998). Agudo et al. (2005) also claim that by using an adaptive hypermedia system that is in line with the developmental abilities of children, they can be actively engaged in activities that improve their second language skills. Perhaps the most widely articulated argument for the use of edutainment materials is that such engaging software motivates students to explore topics in greater depth. Because students are highly involved in interactions their attention is attracted for longer periods of time.

However, creating an environment that is able to catch a child’s attention is only the first step in the instructional process. What is equally important is to maintain this attention through the design of computer software which is grounded in constructivist learning theory considering the findings of research on educational technology and educational psychology. Here the argument is in favour of the software that acts as cognitive tools that can engage students in learning, rather than in playing with it. Olson and Clough’s (2001) also warn that

- The technology used in the classroom should not be further than students’ conceptual understanding.
- Technology should not determine the content or the activity but teachers should shape the technology in order to meet his/her or the students’ needs.
- The technology used in the classroom should be goal-oriented, not just for the sake of the technology.
- The reasons for the technology should be strong, if the only reason is to have fun, other options should be considered.
- Advantages and disadvantages of the technology should be considered before the decision to use it.

## THE STUDY

The aim of this study is to examine five randomly chosen educational software programmes in order to determine the value and effectiveness of the activities offered in the packages. The main criteria when selecting the software has been that they should be teaching English and they should be addressing to kids. The analysis has been carried out to see whether these software packages offer elements well balanced in terms of both entertainment and education of children. The names and some basic features of the software packages are given below.

### 1. Garfield G1

It is a spelling and vocabulary software for kids. The program uses the famous cat -Garfield as the main character of exercises and activities. The storyline is that Jon left the house and told Garfield not to mess up the house or he would be in big trouble. But Odie decides to mess it up and Garfield must clean the house before Jon gets home. Although there is no presentation of the subjects, there are a number of activities in the program. Therefore it can be considered as activity software. There are also relatively short animations of Garfield following each activity.

### 2. English Plus Basic 1

This is the second CD-ROM of a large software package which consists of 12 CD-ROMs. This is one of the most popular sets of English teaching software in the market and also widely used in Turkey. It includes many skills of language teaching and also grammar. Although it is colored with well-designed graphics, grammar sections usually seem to be a mere transformation of grammar books onto to the digital screen.

### 3. English with the Little Mole

This software is basically a story-telling program with colorful pictures and voice effects. The users can read, see and hear the stories. Although there are not activity or exercise sections, it includes a useful picture dictionary for kids.

### 4. Spot and His Friends

It is a simple software package for younger kids, probably around pre-school ages. There are very simple tasks to accomplish and a dog named “Spot” helps the user with the tasks. The user should understand the audio commands in order to perform the activities.

### 5. Little Elephant Interactive

This is an activity software package with mostly listening comprehension exercises. Almost all of the instructions of exercises are of the same format: “Listen and choose”. A little elephant and his family are the main characters of the program. Users click or drag-and-drop on objects according to what they hear.

## EVALUATION PROCESS

It should be noted that selecting an evaluation method depends on the purpose of the study. Being aware of advantages and disadvantages of both empirical method (testing with real users in a controlled experiment) and expert reviews, we have used the latter mainly because comments and criticisms are made from a position of knowledge (Booth 1991). We believe that as Squires and Preece (1999) suggest, in educational software evaluation the application of a carefully selected set of heuristics by a group of experts can lead to a principled but cost effective evaluation methodology (see also Nielsen 1992). In addition, any technique used by teachers need to be relatively quick and easy to use. Heuristic evaluation is designed to address key usability issues in a cost effective way. As Squires and Preece (1999) put it “guidelines or heuristics focus reviewers’ attention as they work their way through the system, using their expertise to role-play the behaviour of a typical user” (p.472)

The evaluation team in this study included three female teachers, two working at the Department of Computer Education and Instructional Technologies and one working at English Language Teaching Department, Çukurova University. They had access to the stated aims of the software programmes and also knowledge about the context in which the programmes are in use. They investigated the balance between education and entertainment and made comments on possible problems or design improvements.

The study was carried out over three days. Each evaluator did two or more passes through the interface with the aim of inspecting the flow of the interface from screen to screen, and the specific features of each individual screen, such as dialogue boxes, feedback messages, etc. The experts relied basically on McKenzie’s (2000) Assessment Chart (see Appendix 1) and their personal experience and opinions in their evaluations. According to that chart, eight main criteria were suggested for the software evaluation. These are:

- Pointless
- Nonstandard
- Robotic
- Glib
- Static
- Disneyfied
- Flashy
- Empty

Here these points will be presented and discussed on the basis of the information received from each evaluator. Relevant software evaluations reported elsewhere will be referred to as well. Two screenshots from the selected software which reflect the related feature best are also provided.

### 1. Pointless

Pointless means that the activity involves the use of a tool such as a spreadsheet or presentation program without an authentic connection to the regular (social studies, science, etc.) curriculum for the grade level of the student. PowerPointing and spreadsheeting become goals rather than just means to ends (McKenzie, 2000).

This is one of the most common misconceptions in educational software and websites. It is believed that when someone, somehow transforms any information into a digital platform, the activity takes the form of a computer-based activity. This feature is mostly observed in “English Plus Basic 1” software series (Figure 1). The software merely presents the grammar topics just like it is presented on a piece of paper. English Plus is far from capturing the advantages of multimedia environments. It separates four main skills in language learning such as listening, writing, and reading etc. rather than adopting an integrated approach, and then presents different learning activities. To evaluators, such a practice impedes the flow of learning. Writing exercise, for example, becomes pointless after a while since it only allows dragging and dropping rather than being a real writing activity. A similar situation is observed in “English the Little Mole” software too, with its simple story telling feature (Figure 2).



Fig. 1 Grammar is just like on paper.



Fig. 2 Story is just like on paper.

### 2. Nonstandard

The activity is disconnected from state standards and the new tests. No relationship or contribution made to the students' grasp of either content or skills (McKenzie, 2000).

Edutainment software is commonly used as a means of measuring the progression and attainment of children in the national curriculum and these are seen by parents to be important indicators of achievement. Teachers, in particular, are under heavy pressure if the requirements of the curriculum are not met. The software packages examined in this study are not found to be designed to assist children in the preparation for the tests at all levels of the curriculum.

### 3. Robotic

The activity requires little original thought or higher level thinking. The student blindly follows directions and wins success by taking orders (McKenzie, 2000).

This feature is frequently used in the activities of “Little Elephant Interactive” software. The Little Elephant just gives orders and children are expected to obey them without any reasoning. For instance, in the activity seen in Figure 3, children are to color the flowers according to the orders of the elephant and in Figure 4, they are to

click on the objects again instructed by the elephant. They do not have any other choices. They just obey the orders of the elephant and the order is always the same: “Listen and choose!” Especially grammar exercises of English Plus has a robotic character since they are not connected and supported adequately to the other parts of the software. In fact, such a design is not compatible with, as Lin et al. (2001) suggests good education software which should be active, not passive, in that the learner should be doing something actively and not watching something passively.



Fig. 3 Color the flowers.



Fig.4 Listen and choose.

#### 4. Glib

The activity requires nothing more than skimming along the surface of the content without probing, exploring, asking essential questions or creating new insight (McKenzie, 2000).

The common problem of the activities in all the software examined is that they lack creativity. For example, in “Garfield G1” software as seen in Figures 5 and 6 below, learners just need to click on the word which is the correct answer of the question. The only difference between such activities and paper-based activities is just the instruction: “Click the right answer” instead of “Mark the right answer.”

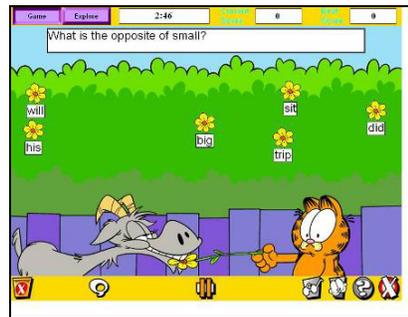


Fig. 5 Click on the opposite word.



Fig.6 Click on the correct spelling.

#### 5. Static

The activity does nothing to advance the skill level or the skill repertoire of the student (McKenzie, 2000). Most of computer-based activities focus on limited skills. It is usually the case that software designers are not deeply concerned to produce more creative or effective activities which help the learner acquire new skills. However, to Lennon and Maurer (2004) any software for children to play and learn should be an extension of the real world, media-rich, challenging, controllable, and leave room for creativity. The software examined in this study usually contains drag-and-drop or click-on activities. Here in Figure 5 which is a screen shot from “Spot and His Friends” software, kids are just supposed to drag the animals and drop them on the field. Likewise, as seen in Figure 6, “The Little Elephant” ask the kids to click on what they hear.

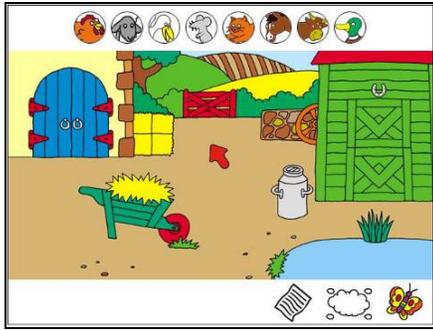


Fig. 7 Drag-and-drop



Fig. 8 Listen and choose

### 6. Disneyfied

The activity is sugar coated and packaged with arcade quality graphics as if learning must be turned into a game or cartoon before young people will find it rewarding (McKenzie, 2000).

In fact, as the name suggests, Disney and similar characters are usually used as heroes of the activities. All activities are designed in game formats. This feature can be seen in most of the software packages. Below, there are two screenshots (Figures 9 and 10) from “The Little Elephant” and “Garfield G1”. For instance, Garfield animations between activity transitions might appeal especially young learners but this feature might also encourage them to quit the learning activity to watch these animations when they are bored.

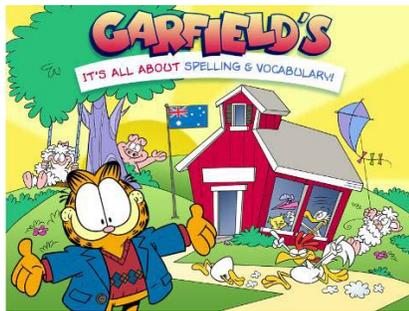


Fig. 9 Garfield and his friends



Fig. 10 Little elephant and his friends

### 7. Flashy

Special effects, transitions, bells and whistles are prevalent. Students are encouraged to devote more than 25% of their time and effort to packaging and special effects rather than the thought, the content and the production of new ideas (McKenzie, 2000).

The learners face this problem mostly in introduction, conclusion and transition section of the software. There usually exists an animation or something flashy to attract the attention of the learner. But in fact they are usually time consumers and distract the attention of the learner. In “The Little Elephant” software there is a 42-second introduction animation that you cannot skip and you have to watch it each time you run the software. And in “Garfield G1” there is approximately 10 seconds’ animation between each activity (Figures 11 and 12).

Here the members of the evaluating team have reported that most software designers attempt to place fun in the software by incorporating multimedia stimuli in a game genre. However, they state that measuring of fun, especially where the users are children is difficult. As Carroll (2004) suggests that things are fun when they attract, capture, and hold our attention by provoking new or unusual emotions in contexts that typically arouse none, or arouse emotions not typically aroused in given context. The problem is that something can be engaging or captivating without necessarily being fun.



Fig. 11 42-second introduction animation



Fig. 12 10-second transition animation

**8. Empty**

The activity does little to advance student understanding of any issue, question or idea worth study (McKenzie, 2000).

Some activities give nothing to learners but waste their time by doing very simple tasks. Such problems may be due to a mismatching of the level of the software with the level of the learners i.e. kindergarten software for elementary school students. As seen below, in the “Spot and his Friends” software, learners just need to drag-and-drop the objects on the screen. There is no task or reason to do that (Figures 13 and 14). In fact, as research on edutainment artifact shows, such products should be designed with the following aspects in mind: effective learning, effective teaching, and effective communication of the content and effective use of technology to achieve the previous aspects (Adams et al. 1996).

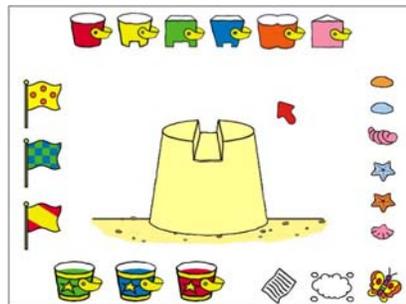


Fig. 13 Drag-and-drop



Fig. 14 Drag-and-drop

**CONCLUSION AND SUGGESTIONS**

The use of educational software in the school setting is not a simple task. Evaluating the software before applying it is even more difficult especially if the software claims that it blends education and entertainment in order to create a motivating and successful environment for learning. From the analysis of five software packages teaching English for kids, it is very clear that these products are more of a nature of electronic games rather than educational software. They lack most of the parameters required to be considered as effective software addressing both pedagogical and entertainment factors. We have found excessive, pointless, and flashy use of entertainment elements while cognitive tools that can engage students in learning are completely missing.

We believe that to realize the full potential of computer technology and to engage students in learning, one needs to look beyond the packaging and special effects (McKenzie, 2000) that make computers engaging in the most superficial sense. There is more to motivating learners than adding entertainment value to lessons or tests. Otherwise, as Healey (1998) put it, learners will not be motivated to learn but just to play with the computer. Olson et al. (2001) also warn that

If the primary advantage of using the technology is that it will be fun for students or more “motivating”, seriously consider why this is so. We think you will find that technology often diminishes the need to attend seriously to prior knowledge, to use metacognitive strategies, question prior ideas, generate examples, compare alternative solutions, grapple with experiences, make sense of these new experiences, make new connections, and analyse whether prior connections make sense.

Here, the need for critical awareness by educators and parents of the importance of a deeper understanding of the role of edutainment software is essential. Such awareness demands that before voluntarily adopting edutainment software as a symbol of innovation, they need to question the pedagogical and didactic philosophy the software design incorporates. The following list of questions might help teachers, learners, and educational designers when trying to select or design educational software:

- What is the point of having this subject/activity/exercise on computer?
- Is the content of the software complying with what is intended to be taught?
- Do the activities in the software really provide gains to the learner? Or they are just robotic?
- Do the activities support learners to ask questions or create new insight?
- Does the software fit the level of the learner?
- Do the activities include so much fun elements which cover the learning?
- Are the activities drowning in flashy animations and effects with noises?
- Do the learners waste time with the program?

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**APPENDIX 1 McKenzie’s Assessment Chart**

Trait	Traits of Technotainment	Y/N
<b>Pointless</b>	The activity involves the use of a tool such as a spreadsheet or presentation program without an authentic connection to the regular (social studies, science, etc.) curriculum for the grade level of the student. PowerPointing and spreadsheeting become goals rather than just means to ends.	
<b>Nonstandard</b>	The activity is disconnected from state standards and the new tests. No relationship or contribution made to the students’ grasp of either content or skills.	
<b>Robotic</b>	The activity requires little original thought or higher level thinking. The student blindly follows directions and wins success by taking orders.	
<b>Glib</b>	The activity requires nothing more than skimming along the surface of the content without probing, exploring, asking essential questions or creating new insight.	
<b>Static</b>	The activity does nothing to advance the skill level or the skill repertoire of the student. Same old, same old!	
<b>Disneyfied</b>	The activity is sugar coated and packaged with arcade quality graphics as if learning must be turned into a game or cartoon before young people will find it rewarding.	
<b>Flashy</b>	Special effects, transitions, bells and whistles are prevalent. Students are encouraged to devote more than 25% of their time and effort to packaging and special effects rather than the thought, the content and the production of new ideas.	
<b>Empty</b>	The activity does little to advance student understanding of any issue, question or idea worth study.	