ABSTRACT

Build a campfire of interest in technology and technological careers by offering a camp or club using Alice Animation. If it is marketed towards girls, Alice can motivate them to consider programming, or more broadly Information Technology, as a career option. Kelleher states that “numerous studies have found that girls begin to turn away from math and science related disciplines, including computer science, during middle school. By the end of eighth grade, twice as many boys as girls are interested in pursuing science, engineering, or technology based careers.”

Categories and Subject Descriptors
K.3.1 [Computers and Education]: Computer Uses in Education – computer-assisted instruction (CAI).

General Terms
Human Factors, Experimentation, Performance, Theory

Keywords
Alice, Camp, After-School program, Girls, Middle School

1. INTRODUCTION

Alice Animation uses 3D graphics and speaks directly to a generation raised on videogames and PIXAR’s films. Because youngsters have an interest in computers and computer games, and parents are concerned about how much time their children spend on the computer, why not offer it in an environment where their use can be monitored, they can have fun, and learn something in the process? When describing time spent on the computer, Shields & Behrman report that, “school-age children ages 6-11 average 49 minutes per day and teens ages 12 to 17 average 63 minutes per day.” They also contend that computer usage is increasing based on the results from an America Online survey that showed that some children, particularly older teenage boys spend 4 hours a day or more using their home computers.” If teens like spending all this time on the computer, why not introduce them to careers where they can get paid for their time on the computer or help them to understand how computers may affect their future careers? The Committee on Information Technology Literacy and Computer Science and Telecommunications Board aptly stated, “In today’s workplace, information technology is increasingly common... Information technology is an enabler for many new types of educational opportunities.”

2. AFTER-SCHOOL PROGRAM GUIDELINES

Because more parents are working, fewer adults are home when children are not in school. Neighborhoods are not as safe as they used to be, street violence, drugs, sexual activity, gang membership, and online relationships are just some of the things causing Americans to become increasingly concerned about what the nation’s youngsters are doing, and not doing when school is not in session. This concern has led to the creation of many after-school and summer programs. However, according to Larner, Zippiroli & Behrman, these programs will only be successful if youngsters find them interesting or attractive in some way, and parents are comfortable sending their children to them and/or see some value to them. When teenagers are not in school, they like to spend time with their friends and interact with adults on the same level. They want to be recognized for their efforts and abilities and have control over their lives. They seek after-school programs that offer fun activities, options, a chance to be with their friends, and the opportunity to be heard. An Alice Animation Camp can offer these things.

Offering the Alice Animation camp at school provides a safe and trusted place for parents to send their children. Teachers who participated in a SPIRIT Workshop through Purdue University and incorporated Alice Animation into their classrooms reported that it does keep students focused and...
engaged, and many students found it fun. Since the program would be introduced in a camp setting, teens would be among their peers and possibly even their friends. Since participants would be creating their own Alice worlds, they would have “choice” or some control over what they were doing. They would present their worlds to the other participants giving them “voice”.

SOCIALIZATION BENEFITS OF COMPUTING

Many parents are also concerned about their teenagers isolating themselves. With the Internet, MySpace, Nintendo Wii and iPods, it is very easy for teens to shut off themselves. Some parents use these interests to tie computer time to extracurricular time. As stated by Larner, Zippironi & Behrman, “E-mail and chat rooms have changed how young people communicate with each other, and computer and video games are a source of conversation and interaction among many children today.” Therefore, computers do not have to be a source of isolation. Shared computers have lead “to group interaction and cooperation rather than social isolation. Various studies have shown that computers can facilitate social interaction and cooperation, friendship formation, and constructive group play. The role of computers in fostering social relationships is further supported by observations that children usually turn to each other, rather than to an adult for computing advice, even if an adult is available. In settings such as computer camps and clubs children exchange ideas, swap software and games, and build relationships. Studies have shown that computer expertise gained at such camps helps children gain social status among their peers and enhance their self-esteem, especially among those who are not as successful in regular class room settings."

ADDRESSING EDUCATIONAL STANDARDS

Alice Animation introduces students to computer programming. “Children’s software for computer programming can increase problem-solving abilities. In addition, using computers to actively engage students in learning higher-order thinking skills has been linked to greater academic achievement.”

The experiences of the authors have shown that when children are equipped with the skills to succeed in the 21st century, they will be ready for jobs that do not exist today. By using technology in the classroom and after school, students are exposed to all of the educational technology standards for students of the International Society for Technology in Education (ISTE):

1. “Creativity and Innovation: Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology.

2. Communication and Collaboration: Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.

3. Research and Information Fluency: Students apply digital tools to gather, evaluate, and use information.

4. Critical Thinking, Problem Solving, and Decision Making: Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.

5. Digital Citizenship: Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.

6. Technology Operations and Concepts: Students demonstrate a sound understanding of technology concepts, systems, and operations.”

ALICE CAMP SUGGESTIONS:

Before you consider offering an after-school Alice camp for students at your school you should compile a list of benefits that it will offer (such as those mentioned in this paper). This will help secure approval and support from your school administrators and technology support staff.

Next, develop a list of activities that the students will complete along with accompanying materials. The authors welcome requests for use of their materials for the after-school programs that they have planned. The duration of the program should be at least one week if you meet daily or could be over several weeks if you are not meeting daily. It is helpful if you can meet at least twice weekly, but if the students have tasks they can be working on until the next meeting, once a week could work. If raw materials and/or food are needed, estimate the costs. If you are able to find a local business that is interested in serving as a sponsor, you may be able to reduce the costs per student and even offer it for free.

Another option is to link up with another community agency (ie. Girl & Boy Scouts, Girls & Boys Clubs, YMCA, etc) to see if they would be willing to advertise and or support your program. If you charge a fee to attend the camp, money left over after your expenses can be used to purchase something for your department and/or school. Using the extra money in this way may also help to get approval for the program being held at your school.

Think about “branding” the camp. One approach for accomplishing this is to create a logo for the camp and produce t-shirts and other materials using that logo. One of the authors also owns an embroidery company, which was used to generate custom shirts for camp members. The shirts also served as a visual aid when this author spoke at regional teacher conferences about the camp. A business, computer and/or art class from your school could also be used to create a logo, flyers, certificates, etc.
While developing program materials, you should also consider the ways that the program could be marketed to the students and their parents. Think about how to demonstrate both the academic and social benefits the students will gain. If you are a high school teacher, you could include middle-school students in your district. Make sure you inform counselors, computer/technology teachers, and other administrators in your high school and middle-school about your program. Use e-mail, send flyers and/or brochures. If possible, schedule a meeting for those interested in knowing what Alice is and getting more information about your program. If you have sponsors, you may be able to add a competitive element to the experience and award prizes provided by the sponsors.

Find out whether the local news service may be willing to produce a news release to inform the local population about the program. They may be interested in producing a segment after the program ends, and this can help recruit participants to future camp offerings. As mentioned above, community agencies that cater to children and youth may be willing to partner with you by advertising your program to their participants or allowing you to use their facility.

CONCLUSION

Having an after-school camp where Alice Animation is taught would meet the challenge of providing something for young people that is entertaining, fun and engaging, but also educational. Because it introduces students to programming, it would foster creativity, higher-order thinking and problem-solving. It would also introduce participants to possible careers in technology. If marketed towards girls, it could be a way to attract more females to careers in technology and/or programs that offer technology classes.

2. REFERENCES


