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## Using the instructional computing design process to introduce and incorporate the Boys Town social skills

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## Using the instructional computing design process to introduce and incorporate the Boys Town social skills

### Abstract

The following paper takes an inside look on how to use the Instructional Computing Design process to create instructional software that focuses on the Boys Town Social Skills. Within the planning, designing, and development of this multimedia project, the paper will also concentrate on the projects standards, management of the project, and an ongoing evaluation of the project. A great amount of discussion in the paper focuses on how to develop software that is used to instruct and guide learners using the Boys Town Social Skills. Each step of the ICD process will be described to reveal how the Boys Town Social Skills Model was implemented into the curriculum effectively and efficiently as a software program. The project will then be described by taking a tour within the program, and finish off with insights gained from the ICD process and the description of possible future projects.

Using the Instructional Computing Design Process to  
Introduce and Incorporate the Boys Town Social Skills

A Graduate Project

Submitted to the

Division of Educational Technology

Department of Curriculum and Instruction

In Partial Fulfillment

Of the Requirements for the Degree

Master of Arts

UNIVERSITY OF NORTHERN IOWA

by

Marcus R. Kurtz

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Titled: Using the Instructional Computing Design Process to Introduce and  
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has been approved as meeting the research requirement for the  
Degree of Master of Arts

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## Abstract

The following paper takes an inside look on how to use the Instructional Computing Design process to create instructional software that focuses on the Boys Town Social Skills. Within the planning, designing, and development of this multimedia project, the paper will also concentrate on the projects standards, management of the project, and an ongoing evaluation of the project. A great amount of discussion in the paper focuses on how to develop software that is used to instruct and guide learners using the Boys Town Social Skills. Each step of the ICD process will be described to reveal how the Boys Town Social Skills Model was implemented into the curriculum effectively and efficiently as a software program. The project will then be described by taking a tour within the program, and finish off with insights gained from the ICD process and the description of possible future projects .

## Introduction

In this project, The Boys Town Social Skills will be administered by teachers using instructional software that follows the Instructional Computing Design (ICD) process outlined by Alessi and Trollip, (2001). Through using the software, the students will learn how to use the Boys Town Skills in an appropriate manner. Students will also learn a variety of skills in many different contexts. Students following the Boys Town program, should know a set of behaviors, and be able to use a collection of decision making rules for determining the response in the context of interactions with all school personnel (Connolly, Dowd, Criste, Nelson, & Tobias, 1995). Creation of the Boys Town program follows the skills and procedures outlined by Connolly et al. (1995), in addition the instructional software helps children choose the appropriate decision when a conflict arises.

Combs and Slaby (as cited in Connolly et al., 1995) have defined a social skill as an ability to communicate with others in ways that is socially accepted or valued, and at the same time is personally beneficial or beneficial to others. Based upon that definition, a social skill is something that helps a person get along with others in ways that match the values of Society and benefits that person or others. The purpose of the Boys Town, according to Connolly et al. (1995), is to promote student success through social skill instruction. The rationale for implementing the Boys Town Skills is to significantly reduce discipline problems while directing and humanely teaching vital life skills in a positive school environment (Connolly et al., 1995).

Wilson School in Cedar Rapids, Iowa, is home to second through eighth grade students. Many of these students come from low-income families and approximately half of the student body is involved with the government funded free and reduced lunch system. Students at Wilson come from many different ethnic backgrounds. Twenty-five percent of that population is a

combination of African American, Mexican, Chinese, and Indian. Many students at Wilson are considered to have discipline problems and are generally labeled to be at-risk. Carter (1999) found that students without appropriate social behaviors were not able to achieve academic success. Most Wilson students have not yet acquired the social behaviors necessary to effectively and appropriately interact with peers and adults in a school setting. As a result, Carter's work (1999) supports the concern that many of Wilson's students will have difficulty achieving academic success. Administration at Wilson school adopted the Boys Town Skills nine years ago to introduce the students to the social skills necessary to achieve academic and social successes.

Based on the needs of the student body at Wilson school there needs to be a functioning system where students may learn about the skills that will not only help them succeed in school, but in life as well. The significance of this project is providing students at Wilson with social skills in order to become a productive a citizen not only at school, but in the community as well. Without the Boys Town program being implemented at Wilson, there will be more office referrals, more time spent off-task, students who do not know specific behaviors to follow, and students who do not take responsibility for their behaviors.

### Terminology

Multimedia is playing an important role in the students learning as well. Multimedia, according to Veenema and Gardner (1996), is a way of presenting pictorial, audio, and textual information to learners. They continue by stating that with multimedia students are able to form a rich representation of an event and come up with a deeper understanding of content. Within the context of the Boys Town program, students engaged in this software program are presented visuals of what each skill looks like in a classroom setting, as well as hearing examples and

reasons on how the Boys Town Skills are being used at Wilson school. Students learning at their own pace, interacting and having control over multimedia learn at a faster rate than students in the traditional classroom setting (Najjar, 1996). Allowing multiple paths for selecting information, suiting a learning style and ability level, and adhering to informational needs are all advantages of a multimedia program as well (Schroeder, 1991). The Boys Town program is an interactive piece of software to assist learners to in recognizing appropriate social skills and behaviors. The Boys Town program was created to engage students in learning with a higher success rate than in a traditional classroom (Brogan, 1999). The Boys Town program was also designed to build upon the fact that instructional software increases learning retention when it uses the audio and visual parts of the brain. The combination of animation, graphics, and user input provides a much richer learning environment than a lecture has to offer (Brogan, 1999).

Two key terms discussed throughout this project are the Instructional Computing Design Process and the Boys Town Social Skills. The Instructional Computing Design process (ICD) is outlined by Alessi and Trollip's (2001) model for design and development. The systematic model has three stages: (a) planning, (b) designing, and (c) the development of a particular project. Within those three stages, the three significant details to applying the ICD process are applying the project to the standards, making sure the project is well-managed, and constructing an ongoing evaluation for each of the three stages.

The Boys Town Skills are a comprehensive, systematic method for teaching social skills to youth. Its four components (Social Skills Curriculum, Teaching Interactions, Motivation Systems, and Administrative Intervention) help students learn productive ways of managing their own behavior and interacting with others. It combines a skill-based teaching system with care and concern, resulting in improvements in students' behavior, self-esteem, and relationships with

others (Connolly et al., 1995). In this particular project, the seven main Boys Town Skills within the Social Skills Curriculum that were applied in a multimedia setting were: (a) Following Instructions, (b) Accepting Criticism or a Consequence, (c) Accepting “No” for an Answer, (d) Greeting Others, (e) Getting the Teacher’s Attention, (f) Making a Request, and (g) Disagreeing Appropriately.

Students at Wilson school need this multimedia program to coincide with their multiple intelligences, but most importantly, students need to master the Boys Town Skills in order to be contributing citizens in today’s society. The Boys Town Skills are providing models for youth at Wilson to accept responsibility for their behaviors, to respect the rules, limits and needs of others, and to think and solve problems. The Boys Town Skills are also necessary for the students, for they enable the teacher to focus on teaching rather than controlling behavior. The Boys Town Skills offer students solutions to their problems, as a result, schools are having fewer office-referrals, and students’ time-on-task increases (Connolly et al., 1995).

### Methodology

There are many procedures that were followed when implementing the instructional software of the Boys Town program. The three main stages of Alessi and Trollip’s (2001) ICD process are: (a) planning, (b) designing, and (c) development. Each of these stages will be talked about in great deal throughout this paper. Without the proper planning, designing, and development of a project, the software used to instruct the Boys Town Skills would not have been possible.

#### Planning

When incorporating any type of project into the curriculum it is important to have a planning phase to ensure that all aspects of the project move smoothly. Newby, Stepich,

Lehmann, and Russell (2000), consider an instructional plan to be like a recipe. The plan should include all of the ingredients necessary for learning to occur. In planning for a multimedia project Alessi and Trollip (2001) have enumerated the following steps to be discussed later: (a) defining a scope, (b) identifying learner characteristics, (c) establishing constraints, (d) finding the cost of the project, (e) producing a planning document, (f) producing a style manual, (g) determining and collecting resources, (h) brainstorming, (i) defining the look and feel of the project, and (j) obtaining the client sign-off. Each of these steps is essential in laying the groundwork for the entire project.

Defining the Scope. The scope of the project involves identifying what content is going to be taught, what the desired outcomes of learning will be, and at what level of competency the students will learn the content presented. The scope of implementing the Boys Town program was to present the Boys Town Skills to second through eighth grade students. The desired learning outcomes were focused on students recognizing and choosing the correct Boys Town Social Skills in a given situation (see Appendix A1 - A1.6 to view the Concept Paper in the Boys Town program). Once the scope of the project was defined, the next step was to identify the learner characteristics.

Identifying Learner Characteristics. Dick and Carey (1996) suggest a designer begin with a needs assessment of the learner to solve an organizational problem. In the Boys Town program, this designer identified and charted the learning characteristics of 6<sup>th</sup> grade students. Many factors are included when identifying the learner such as: (a) determining the age, (b) education level, (c) reading level, (d) prerequisite knowledge and skills with a computer and the web, and (e) time availability of all the learners in the sixth grade. By identifying the characteristics of the learner, the Boys Town program will best fit the needs of the students (see

Appendix A2 to view the learner characteristics). Once the learners have been recognized, constraints of the program have to be identified.

Establishing Constraints. Establishing the constraints of the program is a vital step in ensuring that the multimedia is ultimately successful (Alessi & Trollip, 2001). The two key issues in need of attention when establishing constraints are the hardware and software. Hardware constraints that were adhered to in using the Boys Town program were whether it was going to be accessible for all computers. Some students could even take the software home to review with their parents on CD-ROM. Since there were numerous sound pieces added, the school's computer lab needed headphones so that the learners could pay attention to the program without sound disturbances from other computers. The last hardware constraint considered was the school district hard drives. The district had to allow a folder within the student applications hard drive so that students could access the program within the computer lab.

One of the biggest factors in the software constraints for the Boys Town program was the ability to have access to Microsoft PowerPoint, and the computer's operating system had to be fast enough to make the project a success. Without these two, the project itself would have been a waste, for it would not have been able to run efficiently or effectively (see Appendix A3-A3.3 to view the constraints of the program).

Finding the Cost of the Project. Since the project was created as part of the requirements for a Master's degree, there was not a funding issue for the project, except for the costs of the CD purchases. If the project were done from scratch, however, there would need to be a budget for paying the teachers who were involved in the planning, designing, and development of the project. Other budget concerns related to this project could have been getting headphones for

each computer in the lab. Along the lines of budgeting, there should also be a consideration on how much the product is worth in case it were to be sold to other schools or districts.

Producing a Planning Document. A planning document according, to Alessi and Trollip (2001), is a combination of managing the budget and managing time. Since the Boys Town program did not call for either one of these, it was not incorporated into the project. If this designer were to receive funds to create a product like the Boys Town Skills program, it would be very beneficial to have the list of personnel and their hours, in order to stay within the budget constraints of the school employer. The reason for installing a planning document for such a project is to keep track of costs and time responsibilities of all personnel working on the program.

Producing a Style Manual. Producing a style manual involves creating a set of standards to follow by within the multimedia of a project (Alessi & Trollip, 2001). Creating a style manual in the Boys Town program was an organizational step in outlining the look and feel of the multimedia, along with an outline on the function of the program. Factors that went into the look and feel document were things such as placements of logos, style and color of text, screen layout, and placement of certain buttons. Next, there was consideration for grammar, punctuation, language, and graphics all in the style conventions of the program. Lastly, there is the functionality in the program. With the Boys Town program, functions were connected to the click of the mouse for all navigational buttons as well as for help (see Appendix A4 – A4.32 to view the style manual for the Boys Town program).

In creating the style manual, other parties should be considered in detailing the multimedia for the students who are going to be using the program. As Brody states (1995), there needs to be a broad-based support system, and an ongoing evaluation (Alessi & Trollip,

2001) where the client and the producer are working together towards the same set of standards, goals, and objectives that were sought out in the planning phase.

Determining and Collecting Resources. When thinking about ways to incorporate the Boys Town Skills, there were plenty of resources that the program needed before it was to be put into place. When introducing the Boys Town Skills to students, the first set of resources available in our school includes the posters of the skills themselves. These visual posters give something the kids can refer to any time of the day when faced with a problem situation. Next, in order to complete the program, a list of behavioral standards had to be incorporated into this project. Standards were used to give the project focus and a strong base to work with (see appendix to view the standards). Lastly, the Well Managed Classroom text (Connolly et al., 1995) helped reason the questions of who, what, when, where, and why the Boys Town Skills were being implemented into the curriculum.

Brainstorming. In order to develop a multimedia project with a vastness of creativity, the 6<sup>th</sup> grade team sat down at Wilson and brainstormed a plethora of ideas on how the instructional content, methodology, and media would be presented to the students. We used this activity not only in the planning phase, but in other phases as well. Brainstorming for the Boys Town program occurred over and over. Whenever there were problems, the team would share numerous ideas on how it could be solved. Once they had a set of ideas, they then could discuss what they wanted to do to solve the problem. One example of a brainstorming session occurred in the alpha testing. Students were moving through the program without reading or listening to the informational text. After brainstorming the team came up with a variety of ways to solve this problem and chose to have the “back” and “next” buttons come after the text, so that students could not by-pass the sections.

Defining the Look and Feel of the Project. Careful monitoring of the program is vital throughout its existence. Defining the look and feel of the Boys Town program to the client was important in a variety of ways (Alessi & Trollip, 2001). Describing how the program was going to look and feel in the planning stages made sure that there were no misunderstandings with the program and how it is going to look (see the Appendix A4.1 – A4.16 to view the style manual and view the look and feel of the Boys Town program). It was also important that the client see that the standards were still being applied to the project, and it was following the original plans. By following the standards and providing the client with the look and feel of the project, there was organization and management within the program, so that everyone knew what to expect when the program was to be put into place. There should not be any surprises to the client, and everything should be laid out in front of them, like a blueprint for the building of a new home.

Obtaining the Client Sign-Off. Obtaining the client sign-off occurred three times throughout the project. Obtaining a client's signature is important, for it affirms the clients' knowledge and understanding in the creation of the project and the direction in which it is going (Alessi & Trollip, 2001). Having his/her signature throughout each step of the ICD process declares the acceptance of the Boys Town program. After obtaining the signature for the planning stage of the project, the program director proceeds to the design phase.

### Designing

After the project was carefully planned out, the design process followed. Within this stage Alessi and Trollip (2001) have mapped out the designing of: (a) content ideas, (b) task and concept analysis, (c) program description, (d) preparation of a prototype, (e) creation of flowcharts and storyboards, (f) preparation of scripts, (g) client sign-off. The purpose of the design phase was to engage learners by finding a way to structure information to be learned

effectively and efficiently. Multimedia activities of the Boys Town program are to maximize interest with graphics and design, increase learning and retention (Alessi & Trollip, 2001). The multimedia should also be motivational for students. The Boys Town program follows Keller's steps (as cited in Dick & Carey, 1996) in keeping the students attention, making it relevant to their every day school life, students are confident they can finish the program, and are satisfied when completed with the program and can recognize the skills in a real world situation. With sound, graphics, and animation, the Boys Town program keeps the students attention. The Boys Town Skills are used throughout every classroom on every school day, which make the program relevant to students. In addition, when students are using the skills in or out of the classroom setting they are incorporating them into a real life situation.

Concept Ideas. The first step in designing a multimedia project for the Boys Town Skills was to develop a set of concept ideas. The content of the program was developed but first brainstorming occurred. Ideas were collected about what content the school wanted the students to know about the Boys Town Skills. In developing the seven concept areas listed in the introduction, the next stage was to make sure that those concepts followed the standards, match the goals and objectives, allotted a time for students to complete the tasks, and ideas on how to implement the instruction.

Task and Concept Analysis. In analyzing the task and concepts, the Wilson School group wanted to make sure that the students could learn the concepts in any sequence. The learner could then follow his/her own course of instruction, taking into account his/her own learning. The sequence within the program is there for learners who need guidance, but is not necessary to follow. By giving the learner the power to control the program, it increases the value of the program, and makes learning more effective for the students (Maurer & Davidson, 1999). Within

the task analysis, a composition of what the students will be learning should be composed. An outline was created to show what skills the students were going to learn and the sequence of the learning process. (Alessi & Trollip, 2001). In the Boys Town program, the students will learn about certain links, and then continue to learn about the seven main Boys Town Skills.

Program Description. In continuation of analyzing the structure and sequence, there are types of learning, procedures to follow, and skills to acquire. The inclusion of the statement above is called the program description (Alessi & Trollip, 2001). The Boys Town program is for all types of learners. The multimedia was planned to instruct both the audio and visual learners. In many instances, audio and visual stimulation is going on at the same time. Some types of learners dealt with in the program are also non-readers, for this reason, all of the text can be read to the learner.

There are very few required skills that the learner must possess in order to run the program. The primary skill within the program would be to click on the mouse, but may also include reading text, although the program is designed for non-readers, too. Within the description of the program there should also be an action plan, where the process the learner is going through is outlined. The learning outcomes should be tied to the standards, goals, and objectives, reach the required outcome, follow a timeline, and require the students to take responsibility for their learning. The Boys Town program demonstrates, at this point, the who, what, when, where, why, and how the learner is going to progress through this program, and why technology is going to make this the most effective and efficient means of doing so. Discussion on the actual process of the learner is outlined in the project section of this paper.

Preparation of a Prototype. The preparation of a prototype is a miniature example of what the product is going to look and feel like (Alessi & Trollip, 2001). Examples used by the

Boys Town program were mock images of the first five slides. The client is then aware of what the program looks like, and has a feel of how it is going to be implemented later on in the process. The client will also have the opportunity at this point to brainstorm any other ideas. At this point, it is important once again, to see if the document is following the standards, and is being evaluated. Using the prototype shows the organization and management of the program.

Creation of Flowchart and Storyboard. The next step to give an overall view of the program is the creation of a flowchart and a storyboard. A flowchart shows the structure and the sequence in which the learner is going to follow (Alessi & Trollip, 2001). Simply put, the flow chart is a diagram that shows how the program is going to flow or progress. In the Boys Town program, creation of a Level-2 flowchart shows a comprehensive overview of the program (see the Appendix B1 to view the flowchart).

A storyboard is a visual representation of each individual slide. Original storyboards are drawn out by hand. Each slide in the program should be represented in the storyboard in order to keep the client informed on what each individual slide will look like (Alessi & Trollip, 2001). In the Boys Town program, layout, graphics, navigational system, and content on the slide were all laid out for the client to read and look at all of the placements (see Appendix B2 for the final version of the storyboard, and B3 for the navigational chart of the program).

In addition, it is important to consider an ongoing evaluation when creating the flowcharts and storyboards. There were minor changes to the flowchart and storyboard throughout the Boys Town program, but it was still important to follow the standards that were outlined in the planning. Evaluating the flowchart and storyboard each time a new version is created is important to make sure the project is fulfilling what it was planned to accomplish.

Preparation of Scripts. The preparation of scripts is mostly important to save time when recording. The content on the slides in the form of text are already present in the program, so there would be no need to come up with another script. In the Boys Town program, it was important to outline scripts when using the photo captions. Students were to role play with audio based on what the picture was portraying. A script was written for each picture and acted as a guide to what the students were going to say. Since the scripts were planned previously, there were only one or two takes on the audio pieces. However, if the scripts were not available, there would have been more takes, and the student volunteers would not have an idea of what they were trying to accomplish.

Client Sign-Off. Last in the design phase is the client sign-off. The client should overlook all of the components of the flowchart, storyboards, navigation of links within the program, and sound elements before endorsing the sign-off sheet. The sign-off, is again, part of the ongoing evaluation and project management. The client should question any aspect of the project, so that revisions can be made. An example in the Boys Town program was that many sound pieces needed to be re-taped because of the poorness of the sound quality. When the sounds were fixed, the client then proceeded to sign the document. Having the signatures declares the acceptance of the designing stage of the project, and states to the program director to proceed to the development phase.

### Development

The last stage in Alessi and Trollip's (2001) ICD process is the development stage. In this stage, development of the software will begin. The planning stage covered the needs of the students, the design phase created a storyboard and flowchart in which the learner will pass, and the development stage will be responsible for creating the software based on the outlines for the

planning and designing phases. Within the development stage there will be: (a) preparation of text, (b) creation of graphics, (c) production of audio, (d) assembly of pieces, (e) alpha testing and revisions, (f) beta testing and final revisions, (g) and obtaining client sign-off.

Preparation of Text. Preparing the text was completed in the design phase, however, it is important that the text is readable with the appropriate size, font, and color. All of these text options should resemble the creation in the design phase. When preparing text, it is noted by Alessi and Trollip (2001), but not necessary, to import text from Microsoft Word. By importing the text from Microsoft Word, spelling and grammatical errors within the program can be detected quickly and easily by using the spelling and grammar tools provided by the Word program.

Creation of Graphics. When creating graphics it is important that each graphic has a direct purpose outlined in the planning stages (Alessi & Trollip, 2001). The Boys Town program has a variety of different graphics each for a purpose. Some examples are using a megaphone as the sound icon, using arrows for back and next icons, using a scale for the Boys Town Skills icon, and using a man crossing a finish line for the end icon. Each of these graphics directly correlates with where the learner will go within the program if he/she clicks on them. Colors of the graphics are soft and mix well with all of the backgrounds within the program. They are easily seen, but not disruptive to the learner using the program (see Appendix B2 to view graphics of the Boys Towns program). Animated graphics are used to get the learner's attention. According to Thibodeau (1997) graphics help detail and highlight key information. The green circles in the Boys Town program pop up, or appear, to clue the learner into an important topic within the program.

Production of Audio. The production of audio has many benefits in a multimedia presentation. Veenema and Gardener (1996) comment on the multiple intelligences of learners, and by creating an audio/visual environment, there will be an increase in learning. In the Boys Town program, the text can be read to non-readers. It can also be used for those students who are audio learners. Another reason audio was put into the Boys Town program was to create a role playing experience describing pictures of students following each of the Boys Town Skills within the program. The sounds in the program were also used to attract attention to the text, or used as a narrator giving directions that the learner could follow. In working with the audio files, it was important that each sound item came out clear, and directly explained what the text had portrayed.

Assembly of Pieces. In the planning and designing phases there were many pieces that are a part of the Boys Town program. Once all of them had been developed, it was time to put them all together. In the Boys Town program, the pictures, graphics, and sounds were all kept on a disk so that they could easily be imported into PowerPoint. The only problem with importing all the pieces, was that all of the files must travel with the program. For example, on a CD, in order for the program to work, all of the sound and pictures files must be transferred to the CD in addition to transferring the PowerPoint program. Once the pieces were all together, the software program was in its final stages of production.

Alpha Testing and Revisions. As a part of the ongoing evaluation, an alpha test should be conducted to evaluate the program's content, flow, and robustness of the program. The first part of the alpha test is creating an evaluation form of the software to make sure that the subject matter, information, and interface of the program are acceptable for the learning environment. Other parts of the alpha test should include navigation, pedagogy, and invisible features (Alessi

& Trollip, 2001). Within the Boys Town program, links that navigate to different slides were checked so the links would always get to the desired slide. Thibodeau (1997) noted that text should be limited to ease the frustrations of the readers, so the text was limited to one paragraph or less on each slide. Invisible features, such as, the automatic playing of sound was also checked. Testing to verify sound playing and listening to the quality of sound when they played was part of the alpha testing as well. Within the alpha testing, the look and feel document was reviewed to make sure all graphics, layout, and color were appealing to the learner. Grammar and language was evaluated by the language arts teacher, and the functionality of the program was checked as well (see Appendix C1 - C1.5 to view the alpha test).

After the alpha testing was conducted, the following revisions were put into place. First animation was put into the main menu links to key the learner's eyes into the two main topic areas. After the subtitles were put into place, the arrows needed to come after the text was read to prevent students from clicking to the next slide without reading the material. Third, there needed to be a time allotment put into place before the arrows appeared on the quiz. Next, there needed to be a hyperlink put into place on #8 the Boys Town Skills Quiz button. Finally on the alpha testing, there were too many icons on the quiz pages which made the page look confusing, thus, a few of the sound icons were taken out, and the text was read automatically.

Beta Testing and Final Revisions. Beta testing follows the alpha testing and is required before the ICD process within the Boy Town program is complete. Beta testing involves the process of actually using the program with a smaller, desired audience, and noting any changes that will need to take place. In this test, the learners are identified and the procedures are explained to them. Once they understand the content, it is time to take them through the program (Alessi & Trollip, 2001). Within the Boys Town program, there was direct observation of the

students while going through the program, an interview was conducted after completing the program, and a revision of the program was made.

One of the main behaviors that the designer observed when giving the program to the students, was watching the confusion of students when coming to a slide with too many sound icons. Students wanted to click on them once they saw them, so the voices would all mix with one another. A revision made, due to this problem, was creating some icons to go off automatically, eliminating the amount of sound icons on a certain page. Another revision was making the sound icons appear after the previous one had finished playing. Making the sound icons appear one at a time, eliminated students clicking on more than one sound icon at a time. Many students, based on the interview after going through the program, had said that they always did not know which icon to click, or when to click on it. The succeeding revision on the sound icons was then to number the icons, so the students knew the sequence to follow. Based on this fact, new directions were stated automatically when the Boys Town Skills slides appeared (see Appendix C2 – C2. to view the beta test and its learner results).

Client Sign-Off. The last client sign-off is the last of the ongoing evaluation that will take place before the program is put into place in the classroom. The purpose of the last sign-off is to make sure all of the revisions have been made based on the alpha and beta tests. The final sign-off is a statement clearly identifying the program is ready for the intended audience.

### The Project

Within the project, there will be discussion of the overview of the program as well as a description of the program as the learner progresses through the Boys Town Skills. Once the program is started, there are some all-inclusive themes that are followed throughout the program, and these will be discussed in the overview. Following the overview, there will be a description

of the process the learner will go through within the Boys Town program. The sequence of events that the learner will go through will describe the project in its entirety.

### Overview

The Boys Town program is, and will continually be used as an introduction to the expected student behaviors in and out of the classroom. Wilson School still plans to use the project not only as an introduction to incoming sixth grade transfer students, but also as a refresher course on the skills for the students who have been at Wilson in prior years.

The Boys Town Social Skills are a set of behaviors students use during the course of a school day. The project focuses on the 7 major skills listed in the introduction as: (a) Following Instructions, (b) Accepting Criticism or a Consequence, (c) Accepting “No” for an Answer, (d) Greeting Others, (e) Getting the Teacher’s Attention, (f) Making a Request, and (g) Disagreeing Appropriately. Each of these skills has a one to six step process in following the skill. Examples of the steps for the skill accepting criticism or a consequence are: (a) Look at the person, (b) say, “Okay,” and (c) do not argue. For the teachers, each of these skills is important in order to maintain a well managed classroom. Students, on the other hand, will be acquiring the techniques to think and problem solve, accept responsibility with regard to the rules, limits, and needs of others, and develop a positive self-image (Connolly et al., 1995).

The Boys Town program is an anticipatory set of learning experiences that the students will be involved with throughout the year. The program itself is separated into two different parts. The first section of the program demonstrates to the learners how to navigate and understand the multimedia program, and the second half of the program takes the students through the Boys Town Skills.

In the first section of the program, students are learning how to use all of the skills necessary in order to complete the project (as the program is being described in this paper, it might be necessary to follow along using the storyboard in the Appendix B2). Throughout the entire program, a list of options for the learner remains at the bottom throughout the program. The options at the bottom take students to one of the following primary slides: Start, Main Menu, Learning the Links, Boys Town Skills, and End. Each slide contains a Sound/Help icon at the bottom. The sound icon is for the learner to hear the directions for the slide.

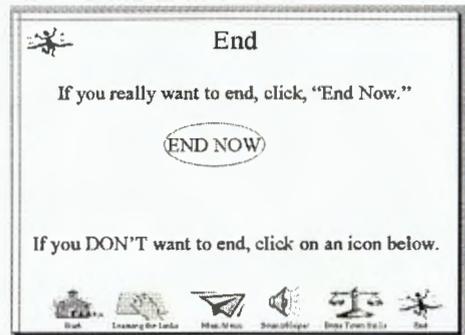
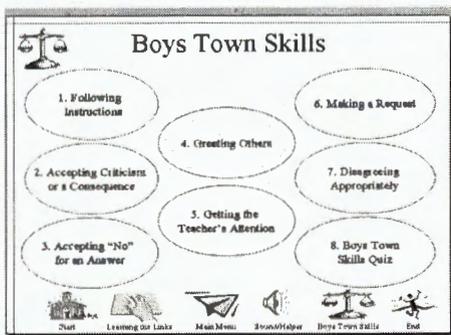
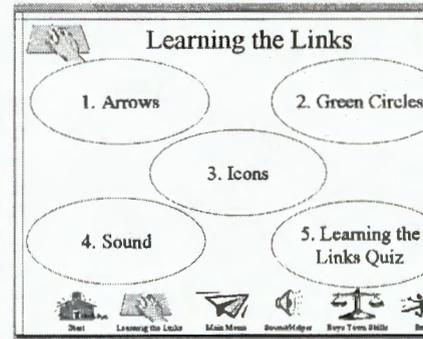
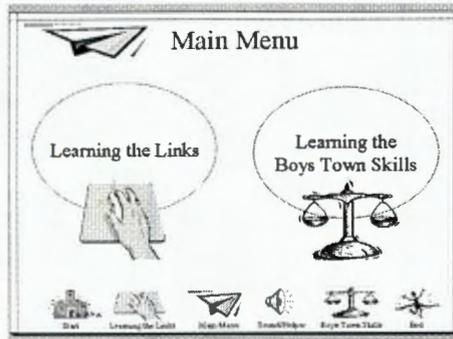
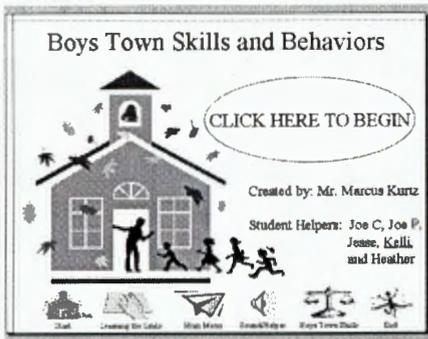
The second section of the program takes the learners through each of the Boys Town Skills listed above. In each one of these slides the student learns about each of the skills, its steps, and an example to relate to. Once in one of the primary slides, as stated above, an icon at the top left corner informs the learner in which section he/she is. For an example, refer to Figure 1, Main Menu. In the Main Menu slide, the learner knows he/she is in the primary section, Main Menu, because the Main Menu paper airplane icon appears at the top left corner.

Lowry (1990) states that color is an organizational tool to help people, especially people with disabilities. Lowry also mentions that color helps people organize thoughts and materials. In the Boys Town program, background colors are also used to organize the learner thoughts as they travel through the program. Tan backgrounds are used for the Title Page, Main Menu, and the End slides. A blue background represents the two topics to be learned within the Boys Town program. The two topics with a blue background are the Learning the Links and the Boys Town Skills slides. Next, there is a grey marble background. The grey marble backgrounds represent subtopics within the Learning the Links and Boys Town Skills. Two examples of grey marble backgrounds would be the Arrows and Following Instructions slides, because both are subtopics within the Learning the Links and Boys Towns Skills slides. Lastly, there is a soft yellow

background. The yellow backgrounds are used for review slides in the Learning the Links section, and used in the Boys Town Skills Quiz slides. The program has now been given a brief overview, so it is time to discuss the program itself as the learner would go through it.

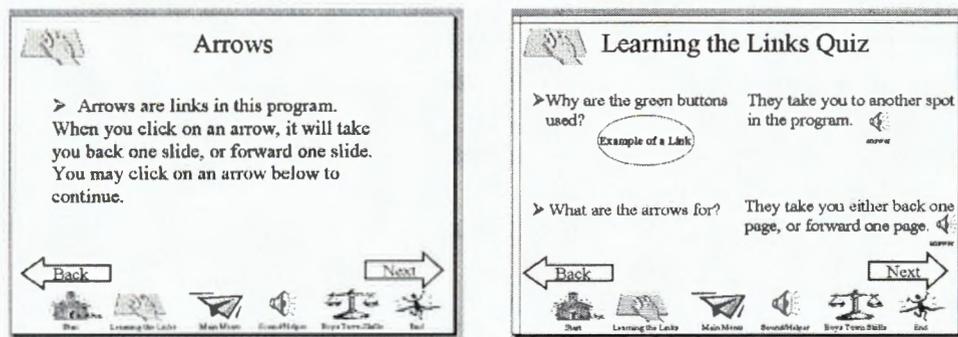
Going through the Program

Starting the Boys Town program, the students first come to the title page known as the Boys Town Skills and Behaviors. The audio on this slide tells the learner to click on the link to take him/her to the Main Menu. The Main Menu page is separated into two learning pieces. The first section in the Main Menu is Learning the Links, and the second section is the Boys Town Skills. Once at the Main Menu, the student is again instructed to click on the Learning the Links slide to learn about how to navigate through the program effectively and efficiently. Figure 1 gives examples of the Title Page, Main Menu, Learning the Links, Boys Town Skills, and End slides.



**Figure 1.** Start, Main Menu, Learning the Links, Boys Town Skills, and End slides. Notice the icons in the top left corner.

In the Learning the Links section, the learners view all of the commands necessary to run the program. For instance, students are learning that arrows take them back one slide or forward one slide. Next, they learn that green circles in the program represent a link. Thirdly, they focus on the icons at the bottom of each slide, and their ability to take them to primary topic areas. Lastly, they learn sound within the program is used for giving directions, help, and giving audio examples of the Boys Town Skills. Once finished with these slides, the program then takes the students through a two part review. The first review slide reviews the arrows and green circles. The review reinforces their learning on the skills required to get through the program. The second two slides demonstrate the icons and sounds. After the learner has passed through this section he/she should know how to successfully navigate through the program, and may continue on to an introduction of the Boys Town Skills. Figure 2 represents an example in the Learning the Links slide, and an example of one of the review pages in the Learning the Links section.



**Figure 2.** Slide of the subtopic, Arrows, and an example of the review slide within the Learning the Links section.

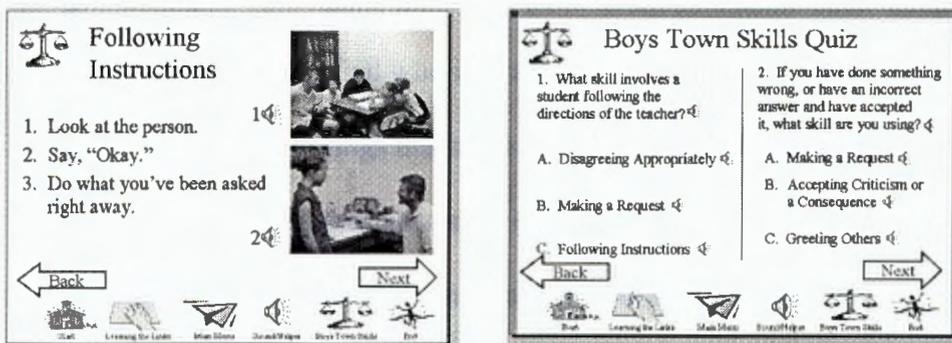
The second section of the program concentrates on introducing the Boys Town Social

Skills and outlining each skill in an actual classroom situation. Starting with Following Instructions and ending with Disagreeing Appropriately, the program states the skill and names audibly in sequence each of the numbered steps in completing the skill. The program has one or two pictures for each skill showing the teacher and the students following the skills. The audio on each of the Boys Town Skills slides also gives an example of students following the skills, followed by an audio telling the learner each step the student took to complete the skill correctly. In short when coming to a Boys Town Skills slide, a student sees and hears the name of the skill, the required steps to complete the skill, an example of the skill in a classroom situation, and hears the example of all the steps the students followed. See Figure 3, Following Instructions, for an example of the Boys Town Skills slide format.

As soon as the learner has completed all seven of the Boys Town Skills slides in the program, he/she has two options. The first option is to go back through the program and review any of the skills. The program allows students to go back and review, so that students will come to understand each of the Boys Town Skills in its entirety. When the learners feel confident, they may continue on to the Boys Town Skills Quiz slides.

The Boys Town Skills Quiz is a set of slides used for evaluating the students' knowledge of each Boys Town Skill. The evaluation of the learner was a process that was first started in the planning stage of this project. The overall goal of the program is stated as (see concept paper in the Appendix A1.3 – A1.4): Given a situation within the program, students will identify and choose the appropriate Boys Town Skills with 100% accuracy. According to McKenzie (1998), evaluating is important to enable the designer to focus on the students learning, give encouragement to students, hold students accountable for their learning, and give credibility to the students work.

Within each Boys Town Skills Quiz slide the learner is to select the correct skill based on the example of the skill given in the question. Each question covers a Boys Town Skill, and all of the skills represented in the program are in the quiz. The learner has three choices to select an answer. The questions may be read to him/her, if desired, and when choosing an answer they are to click on a sound icon by the answer chosen. The directions on the slide describe what the learner hears if he/she chose an incorrect or correct answer. If the learner selects an incorrect answer, the learner hears a low, tugboat horn. If the answer the learner has chosen is correct, he/she hears clapping and a voice of encouragement. The Boys Town Skills Quiz is a combination of four slides, most of those slides having two questions, and the last slide having one question and a statement telling the students they have completed the program. To view an example of the Boys Towns Skills Quiz, see Figure 3.



**Figure 3.** Following Instructions Slide represents the Boys Town Skills slides. Notice, the learner has an audio telling the title of the slide (in this case Following Instructions), the steps in following the skill, an example of the skill demonstrated by the picture and audio of the students following the skill, and finally, an audio telling the students each of the steps the learner followed in the example demonstrated by the pictures. The Boys Town Skills Quiz slide demonstrates an example of the quiz slides on each of the Boys Town Skills.

When the learner has completed the Boys Town Skills Quiz he/she is instructed to end the program. In order to end the program, the student is instructed to click on the End icon. When the student clicks on the end icon, it takes him/her to the end page (see Figure 1, End). The end feature was added for students who accidentally click on the end program. Once at the end page the learner has two options. When clicking on the End icon, the slide lets the learner go back into the program if desired, or the second option is to end the program. When ending the program the learner is taken to the Wilson School Homepage to await further enrichment activities, or to shut down his/her program and the computer.

### Conclusions and Recommendations

Alessi and Trollip's (2001) systematic model for the design and development of a multimedia product has increased the worth of the Boys Town Skills in numerous ways. In creating a program that plans, designs, and develops interactive software that is relevant to a student is enhancing the learning of all who interact with it (Najjar, 1996). In the planning stage, the model incorporates all of the things that are necessary in order to design and develop a great program. Identifying the learner, the constraints of the learner and the software, creating the scope of the project, and producing a style manual gives an outstanding outline to follow standards, goals and objectives outlined by the creator for the program. Incorporating the planning stages in the ICD process, this designer has learned thorough well-planned documents increases the chances of creating a great program.

Within the design portion of the project, the look and feel document creates an understanding of how the project is going to be viewed by the learners. Navigation through the program is laid out, and concept and task analysis, shown by a flowchart, are created to show the direction the learner is going towards meeting the standards. The storyboard of the program is

laid out before the clientele so that they know completely how the program is going to work before it is actually developed. In the design phase, there should be no surprises to what the program is going to look and feel like. With the designing of materials, the development becomes very easy because everything has already been planned out previously.

In the last stage of developing the program, all of the details planned and designed are put into place. Special attention is given to the standards to see that the goals and objectives of the program are being met. Graphics, text, audio, and backgrounds are all created as outlined in the design phase to meet all of the needs of the learners. Finally, alpha and beta testing are completed to evaluate and revise the program before it is implemented into the classroom. Paying close attention to each of the details, the program has become a success and will be used in succeeding years to come however, this does not mean the program is finished. The development of the Boys Town Social Skills multimedia, interactive software program is opening a vision for future projects.

The Boys Town program has opened this designer's eyes to many future projects. Since only the main Boys Town Skills have been used in this project, a great addition to the project would be using all 16 of the skills outlined by Connolly et al. (1995). The Boys Town Skills are not the only policies followed by the school. There are also a set of rules which identify how to recognize and respond to harassment behaviors that students are required to follow (Cedar Rapids Board of Education, 2001). Having a multimedia program that outlines the appropriate behaviors in physical contact with other students may be a great asset to the Boys Town Skills multimedia program. Learners are also encouraged to use the Eleven Habits of Greatness, which are skills used to better a student academically and as a person as well. Some of these skills include: (a) initiative, (b) positive attitude, and (c) extra-mile orientation (Williams, 2000).

Demonstrating these skills in an interactive piece of software may get students to use these skills more often. Instead of just reading these skills on a poster, students could create their own multimedia product of what the eleven habits of greatness means to them. In creating this project-based learning environment, students will be effectively engaged in research, design, analysis, composition, and communication of their project (Carr & Jitendra, 2000). When used properly, computers and software in classrooms can lead to several positive conclusions, including a learning advantage for students who have developed multimedia projects (Branch, 2000).

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## Appendix

### Planning: A

#### Concept Paper: 1

##### Client: 1.1

My client is Eriece Colbert and she works with me at Wilson Middle School. She teaches 6<sup>th</sup> grade science, and also a Reading to Learn class. When I first came to her with my idea, she was pleased that I was working on how to present the Boys Town Skills in a different manner, other than just seeing a poster on the wall. She has been at Wilson for 10 years, and teaching the Boys Town Model for that same amount of time as well. In years past, Eriece has taught Language Arts as well, so she will be able to help me with the reading level of the program when it is completed.

##### Concept Scope: 1.2

The scope of this project is to present The Boys Town Skills to 6<sup>th</sup> grade students. By seeing each of these skills, students should be able to recognize the skill and choose the correct behaviors based on those skills. Students will be working in the computer lab on this project, and will need to be somewhat familiar with Microsoft PowerPoint.

##### Content Standards: 1.3

The main focus of the Boys Town system is classroom management. According to the Mid-continent Research for Education and Learning (McREL) the following standards are used for behavioral needs. The first standard that the Boys Town model follows is the understanding that interactions among learning, inheritance, and physical development affect human behavior. The next standard is the understanding of conflict, cooperation, and interdependence among individuals, groups, and institutions. The last McREL standard that the Boys Town model

follows is conflict-resolution techniques.

Expected Outcomes: 1.4

- Goal: -The goal of learning the Boys Town Model and this program is to identify and choose an explicit strategy to deal with conflict.
- Objectives: -Given a situation within the program, students will identify a Boys Town Skill with a 100% accuracy rate.
- Given a situation within the program, a student will choose the appropriate behavior at a 100% accuracy rate.
- Given a situation in a real world experience, students will be able to identify and choose an appropriate behavior with 81.82% accuracy.

Intended Audience: 1.5

The intended audience for this project will consist of sixth grade students. Since Wilson school has many students not reading at grade level, the project's use of language will be readable from the 3<sup>rd</sup> grade level. Since some Wilson students also perform at higher levels, the program is geared for those students as well. All students will have to navigate through this program, some may go at a faster pace than others, but the intended goal and objectives for all sixth grade students are to be met by all students using this program.

Identify Medium: 1.6

The medium that students will use for this project will be in a PowerPoint format. On the interactive slides, there will be graphics that help students to link to the correct slides. Animation in the slide presentation will occur when connecting to slides. Next, there will be backgrounds that will be used to help students tell where they are at in the program. Lastly, there will be graphics and audio recordings. This audio-visual connection will be used for each Boys

Town Skill.

Learning Characteristics: 2

Item	Weaker Learners	Average Learners	Stronger Learners
Age	10-13	10-13	10-13
Educational level	3 <sup>rd</sup> grade level	6 <sup>th</sup> grade level	8th grade level
Reading level	3 <sup>rd</sup> grade	6 <sup>th</sup> grade	10 <sup>th</sup> grade
Motivation	Low	medium	high
Prerequisite knowledge	Some Boys Town modeling by teachers in previous grades.	Some Boys Town modeling by teachers in previous grades.	Some Boys Town modeling by teachers in previous grades.
Prerequisite skills	How to log on the computer How to use a mouse How to use PowerPoint	How to use PowerPoint	How to use PowerPoint
Facility with a computer	Good	Basic	Basic
Familiarity with the Web	Low	Medium	High
Typing ability	Low	Medium	High
Access to computers	Low	Average	Average
Access to Web	Some at school	Some at school and home	Some at school and home
Time availability	Only during school hours	During and after school hours	During and after school hours

Other Issues: 2.1

2.11 Need to cater to physical disabilities? If so, give details.

Presently, there are no physical disabilities that would hinder the program being implemented. However, if there were any blind or hearing-impaired students alterations would need to be made, in order for those students to be successful. Alterations would consist of making sure everything on the PowerPoint was audio recorded for the blind, and making sure everything was made readable for the hearing impaired.

2.12 More than one language requires? If so, give details.

Again, at this time, every student at Wilson speaks English. However if we would acquire a student with a language difficulty, alterations would need to be made.

### 2.13 Other considerations?

Other considerations that need to be made are teachers using the program. They should know the proper techniques of Boys Town before they let the students use the program. It would be a good idea for the program to be run by teachers who have already completed the Boys Town training, in an event where students would have questions about the appropriate Boys Town skill to use.

### Constraints: 3

#### Content Constraints: 3.1

Item
<p>Content outline: (Include major topics and sub-topics.)</p> <p>Two major topics will be discussed. The first is the Clicking the Buttons sections. This is where students will go to a specific sub-topic and figure out what those buttons mean in order to pass through the program effectively and efficiently. The sub-topics in that category are: Links, Start, End, Arrows, Main Menu, Boys Town Skills, and Help. The second and last major topic is Boys Town Skills. The Boys Town Skills are separated into several different categories starting with Following Instructions, Greeting Others, Showing Respect, Disagreeing Appropriately, Accepting Criticism or a Consequence, Accepting "No" for an Answer, Making a Request, Negotiating, Making an Apology, Resisting Peer Pressure, and ending with Body Basics.</p>
<p>Graphic requirements: (Include anticipated number of required graphics with details about style, richness, development (existing, new, clipart, and so on)).</p> <p>Graphics on the page will consist of many different formats. The first form of graphics will be the buttons that students will need to click in order to move along through the program. Another form of graphics will come from Clipart. These images will be attractive in color and support the content of the project. These images, most likely, will all fit to the major topics and sub-topics spoken about previously. Other graphics contain backgrounds and borders formed to specific topics and subtopics. By creating backgrounds and borders, familiarity within a topic is seen as it relates to its background and border.</p>
<p>Log-in or registration requirements:</p> <p>There will not be a registration requirement to complete this program. However, students must take the first semester Technology course in order to log-in to the computers in the computer lab. Students transferring into our school who have not taken the Technology course may be permitted to log-in as a guest, until log-in requirements have been made.</p>
<p>Self-checks: (Provide requirements for self-checks throughout the program, with details of</p>

numbers and types of questions, and any data storage requirements.)

There are an ample amount of self-checks within this project. The one problem with a PowerPoint presentation is that if a learner doesn't click onto a link, the slide show will take the learner to the next slide. Knowing this, I put in a slide just in case this happens. The slide mentions that the learners did not click on a correct link and must go back to the previous page. There is also a reminder of this on every slide in the top left corner. Other self-checks include a help button at the bottom of every page that will assist students who are facing difficulties. The last self-check is an assessment of what they are reading, and that will be discussed in the following item box.

Tests: (Provide requirement for tests at the end of sections or of the program, with details of numbers and types of questions, and any data storage requirements.)

Assessment will be in the program itself. Students will be required to identify a Boys Town Skill and the correct behavior that represents that skill.

Bookmarking requirements:

There will be no bookmarking requirements, however, students will be instructed where to find the presentation on the district's server.

#### Hardware Constraints: 3.2

Computers: PC	Details and Comments
RAM:	64mb RAM required; 128mb RAM suggested
Monitor resolution:	Suggested 1024X768 pixels
Sound card:	Sound card required
Speakers or headphones:	Speakers or headphones required
Network:	Network connection required
Processor:	Pentium or Celeron processor
Hard Drive capacity:	Minimum 1gb hard drive suggested
CD-ROM	CD-ROM not necessary if connected to network
Modem speed/Internet access	Internet access not necessary if connected to network
Computers: Macintosh	
RAM:	64mb RAM required; 128mb RAM suggested
Monitor resolution:	Suggested 1024X768 pixels
Sound card:	Sound card required
Speakers or headphones:	External speakers or headphones suggested
Network:	Network connection required
Processor:	Pentium or Celeron processor
Hard Drive capacity:	Minimum 1gb hard drive suggested
CD-ROM	CD-ROM not necessary if connected to network
Modem speed/Internet access	Internet access not necessary if connected to network
Computers: Others	
RAM:	64mb RAM required; 128mb RAM suggested
Monitor resolution:	Suggested 1024X768 pixels
Sound card:	Sound card required

Speakers or headphones:	External speakers or headphones suggested
Network:	Network connection required
Processor:	Pentium or Celeron processor
Hard Drive capacity:	Minimum 1gb hard drive suggested
CD-ROM	CD-ROM not necessary if connected to network
Modem speed/Internet access	Internet access not necessary if connected to network
Comments: Use this are to provide other information that will help define the hardware constraints, such as distribution of different types of computers, their accessibility, and so on.	If accessing the program with an Internet connection, users must have PowerPoint2000 (or newer) or the capability of downloading the PowerPoint player.

### Software Constraints: 3.3

Computers: PC	Details and Comments
Operating system(s), including version:	Windows NT, 2000, XP, ME
Browser(s), including version:	Internet Explorer 5.0
Word processing:	Not required
Spreadsheet:	Not required
Network:	Network connection suggested
Processor:	Pentium processor minimum
Authoring system required:	PowerPoint 2000
Testing system required:	PowerPoint 2000 or PowerPoint Player
Other:	
Computers: Macintosh	
Operating system(s), including version:	Mac OS 9 or better
Browser(s), including version:	Internet Explorer 5.0 or Netscape Navigator
Word processing:	Not required
Spreadsheet:	Not required
Network:	Network connection suggested
Processor:	Pentium processor minimum
Authoring system required:	PowerPoint 2000
Testing system required:	PowerPoint 2000 or PowerPoint Player
Other:	
Computers: Others	
Operating system(s), including version:	
Browser(s), including version:	Internet Explorer 5.0 or Netscape Navigator

Word processing:	Not required
Spreadsheet:	Not required
Network:	Network connection suggested
Processor:	Pentium processor minimum
Authoring system required:	PowerPoint 2000
Testing system required:	PowerPoint 2000 or PowerPoint Player
Other:	
Comments: Use this are to provide other information that will help define the software constraints, such as integrated packages, firewall software, security restrictions, and so on.	Presentation will be accessible to staff only (no student access)

#### Style Manual: 4

##### Look and Feel: 4.1

##### Logo: 4.11

The logo that will be used to represent the program of Boys Town Skills and behaviors will be a school building. It will be placed as a start button as well to navigate through the program.

##### Font: 4.12

Since PowerPoint will be used throughout the whole program, Times New Roman will be used as the font style. The font will vary in size, larger for the most important reading sections, and smaller for things such as the icons. The font will remain black throughout the whole presentation.

##### Text Headings: 4.13

The title headings in the presentation will all be at the top with a larger font. Text headings in the form of buttons will vary in size according to the amount of space that is allowed on each slide. Each subtopic heading will also appear at the top with a large font.

### Use of colors: 4.14

Buttons will always be green. Background colors will be different according to the slide a viewer is on. For example a light brown is used for the Title, Main Menu, and End slides. Each of the subtopics in the main menu has a light blue background. In the Boys Town and Buttons subtopics a soft gray/white will be used in the backgrounds. The colors of each icon will take it's own form, but will be attractive to the eye, and no harsh colors will be used.

Example Button



Title Slide



Subtopic Slide



Each Individual Topic

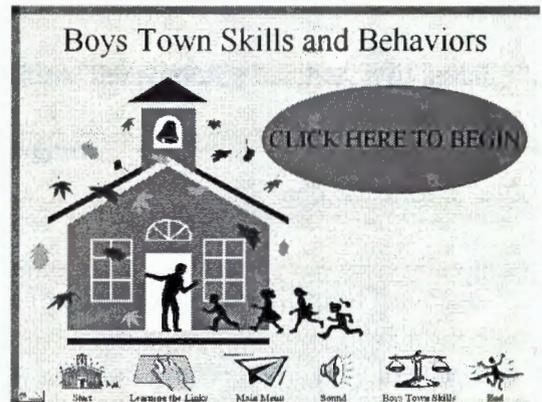


### Screen Layout: 4.15

When the program is running it will take up the whole monitor. Graphic representations will assist the viewer where to go at all times. The graphic representations will be in many different places at different times. Icon graphics for navigating to start, end and for help will all be placed at the bottom. Hyperlinks within the topics will be green buttons and will be placed in a pattern in the middle of the slides.

### Buttons: 4.16

Each of the buttons will have text that will tell the viewer where they are going. For example, the start button will take you to the beginning of the program. The end button will take you to the end. The start, end, sound, main menu, boys town icon, learning the links, and arrows will appear at the bottom of the slides. Other link buttons such as topics will be placed in the center of the slide to make navigation easy. The appearance of these buttons is shown below.



Style Conventions: 4.2

Grammar: 4.21

The audio voices in the program will be calm in nature, non-threatening, and the voices will be in an “up-beat” mood. Grammar tenses will be 3<sup>rd</sup> person all knowing. There will be audio on Marcus Kurtz and a few students that fit the qualities above.

Punctuation and Spelling: 4.22

Topic specific words will be defined in each of the subtopics. All punctuation and spelling will be checked by the “spell check,” client, and maker before presented to students.

Language: 4.23

There will not be use of gender related topics. Correct language will be checked by the client and the maker before presented to students. Since my topic is Boys Town will be referred to Boys and Girls Town skills. The reason it was initially called Boy’s Town, is based on where it started. Boys Town is a place in Nebraska that started an all male school that practiced certain behavior skills to troubled boys. These skills were then later called the Boys Town Skills, and now has changed its name to the Boys and Girls Town.

Cultural/Age: 4.24

Since students will have to read in order to complete this program, it will be checked for readability. The Language Arts teacher, Jody Hemann, will be in charge of making sure all text can be read by at least at the 4<sup>th</sup> grade level. Tara Hawkins, the resource teacher, will assist students who are below that level to get through the program.

Graphics: 4.25

The start graphic of the main page will be large in size taking up a third of the page. Each icon will be no larger than two inches in size. Each button graphic will vary in size, but will be much larger than the icons. Graphics at the tops of the pages will be 2-3 inches both length and in width. Picture graphics will be 3-4 inches in both length and width.

Video: 4.26 – There will be no video in this presentation.

Functionality: 4.3

Information size: 4.31

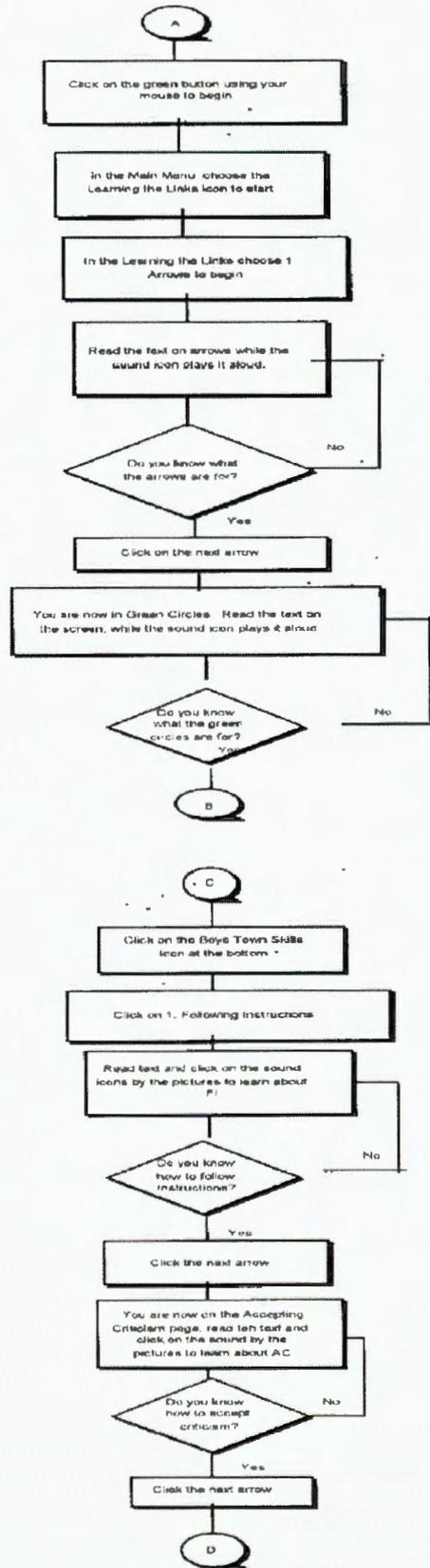
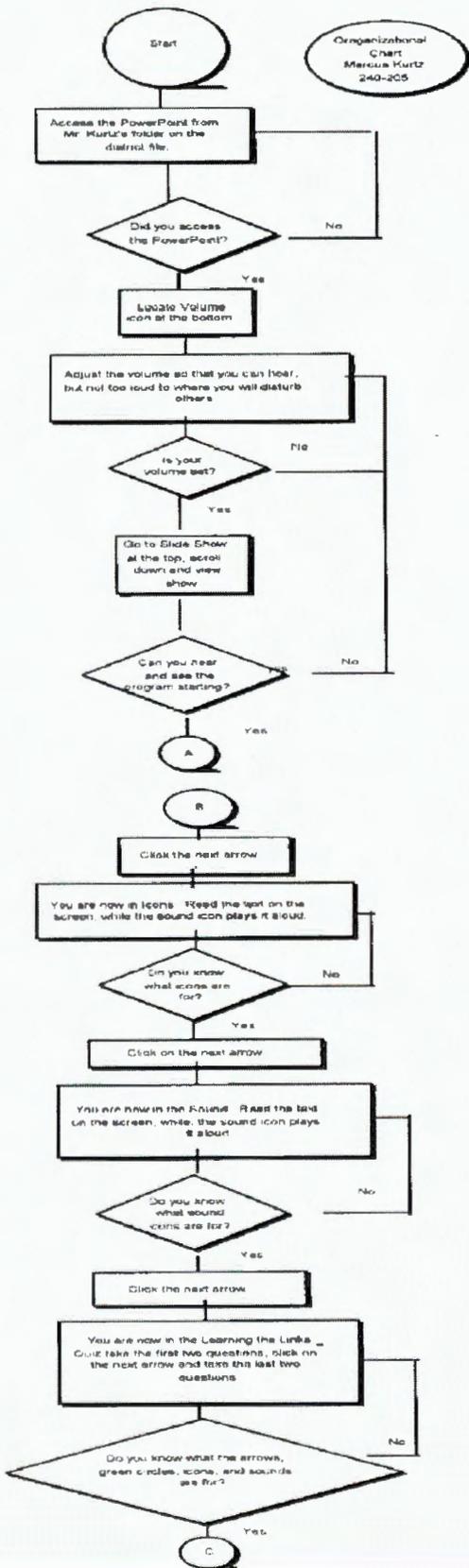
There's no size limit for slides by using PowerPoint. Users will be able to access the PowerPoint on a district web folder, or CD.

User Interface: 4.32

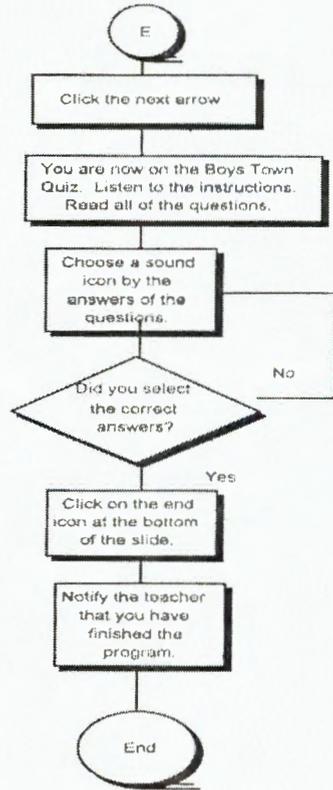
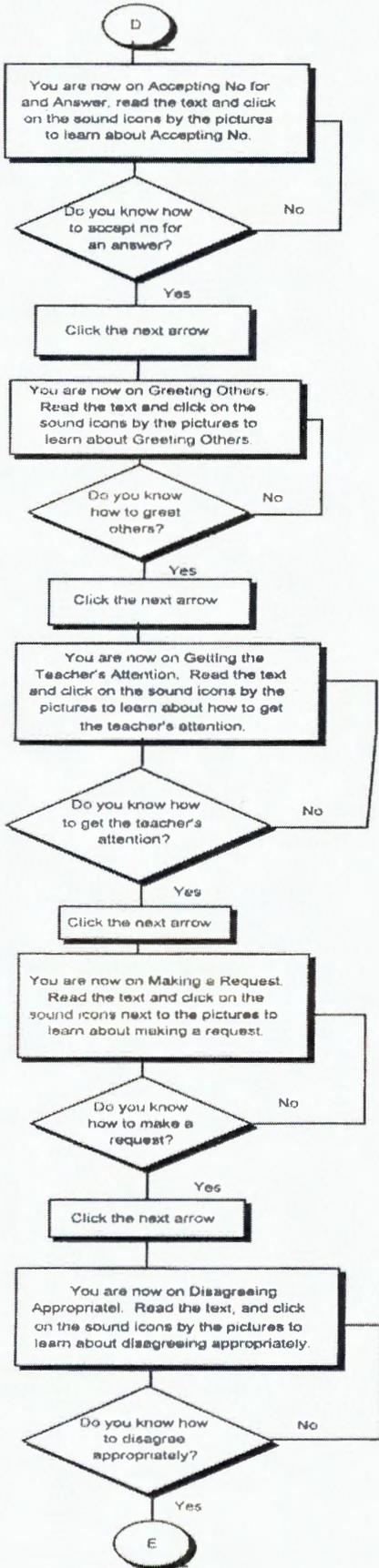
In using PowerPoint the interface users will need is a mouse. It is, but not necessarily, important to have a mouse that will have both a right click and a left click.

Designing: B

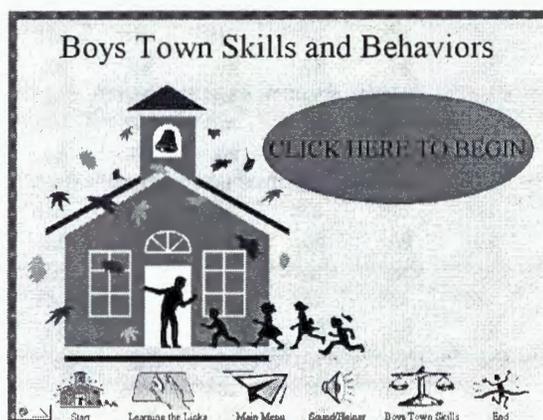
Flowchart: 1



Organizational Chart cont. Marcus Kurtz



## Storyboard: 2



Layout -Boys Town Skills (BTS)

Title Page Slide 1

Background shows the learner

they are on a main page.

Graphic on left shows start

Graphics

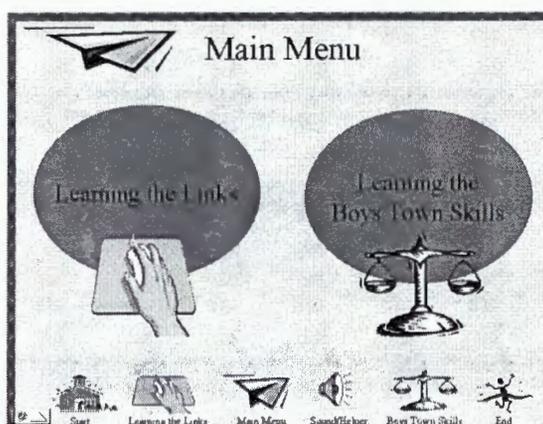
icons on the bottom are all links and are seen throughout the program. The words below them tell you what they are linked to.

Navigational System

begin by clicking on the green button, or any of the icons below. The sound icon with act as a helper at the bottom

Content on slide

Title and a voice telling the learner where to go



Layout (BTS)

Main Menu Page Slide 2

Background shows the learner they are on a main page. Graphic in left corner shows main menu

Graphics

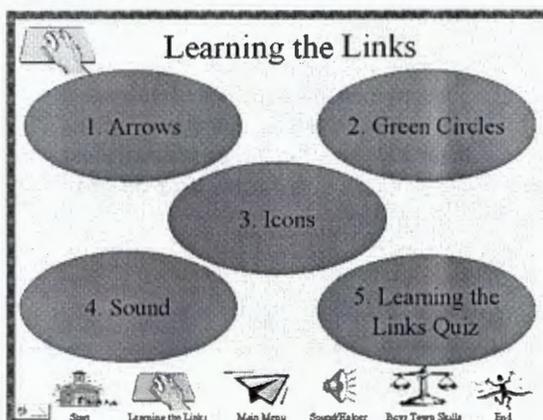
Large graphics for Learning the Links and The Boys Town Skills are shown as well as an icon in the left corner to tell the learner where they're at in the program.

Navigational System

The learner may go to each of the topics or any of the links below, sound icon will act as a helper

Content on slide

Two topics in the Main Menu and a voice telling the learner where to go. Large green circles indicate main links in the program.



Layout (BTS)

Learning the Links Slide 3

Background shows the learner

they are in a topic area.

Graphic

in left corner shows Learning the Links

Graphics

Large green circles indicate a main link in the topic areas.

Navigational System

Learner may navigate to any icon below or the 5 subtopics within Learning the Links

Content on slide

Content shows learner the 5 subtopics in the Learning the Link topic area, and a voice tells the learner where to go.



## Arrows

- Arrows are links in this program. When you click on an arrow, it will take you back one slide, or forward one slide. You may click on an arrow below to continue.



<p>Layout (BTS) Arrows Slide 4 Background shows the learner they are in a subtopic area. Learning the Link icon seen in the top left.</p>	<p>Graphics New graphics in this slide are the arrows. They'll direct the learner on where to go.</p>
<p>Navigational System The learner may click on any of the icons at the bottom or continue by using the arrows</p>	<p>Content on slide Subtopic in Learning the Links, a voice will tell students about the arrows in this program.</p>



## Green Circles

- Read the words inside of the green circles. The green circles will tell you where you are going when you click on them.



<p>Layout (BTS) Green Circles Slide 5 Background shows the learner they are in a subtopic area. Icon in left corner shows the learner where they are at in the program.</p>	<p>Graphics Added graphic of an example of a green circle and that these are used as links throughout the program</p>
<p>Navigational System The learner may click on any of the icons at the bottom or continue by using the arrows</p>	<p>Content on slide Tells the learner in text and in speaking, what the green circles represent in the program.</p>



## Icons

- An icon is a picture. When you click on an icon at the bottom, it will take you to another spot in this program. Icons in the top left corner are not links, but they'll tell you what topic you are in.



<p>Layout (BTS) Icons Slide 6 Background shows the learner they are in a subtopic area. Icon in left corner shows the learner where they are at in the program.</p>	<p>Graphics No added graphics on this slide.</p>
<p>Navigational System The learner may click on any of the icons at the bottom or continue by using the arrows</p>	<p>Content on slide This slide demonstrates what icons are, and what they are used for. A voice will also explain this process to them.</p>

 **Sound**

➤ When you click on a sound icon, it will give you directions, help you read text, give you examples of the Boys Town Skills, and act as a helper throughout this program.



Layout (BTS)  
Sound Slide 7  
Background shows the learner they are in a subtopic area.  
Icon in left corner shows the learner where they are at in the program.

Graphics  
No added graphics on this slide.

Navigational System  
The learner may click on any of the icons at the bottom or continue by using the arrows

Content on slide  
The slide and a voice will tell the learner all the qualities that sound has in this program.

 **Learning the Links Quiz**

➤ Why are the green buttons used? They take you to another spot in the program. 



➤ What are the arrows for? They take you either back one page, or forward one page. 



Layout (BTS)  
Learning the Links Quiz Slide 8  
Yellow background indicates to the learner they are in a quiz.  
Icon in top left show the learner where they're at in the program.

Graphics  
Added sound graphics added to assist the learner in reading the answers to the questions

Navigational System  
The learner may click on any of the icons at the bottom or continue by using the arrows.

Content on slide  
The content on this quiz page is an overview of the green buttons and the arrows.

 **Learning the Links Quiz**

➤ Why is sound important? When you click on a sound icon, it is mainly used as a helper. 



➤ Why do you use the icons at the bottom of the page? Use the icons to take to back to a main topic area. 

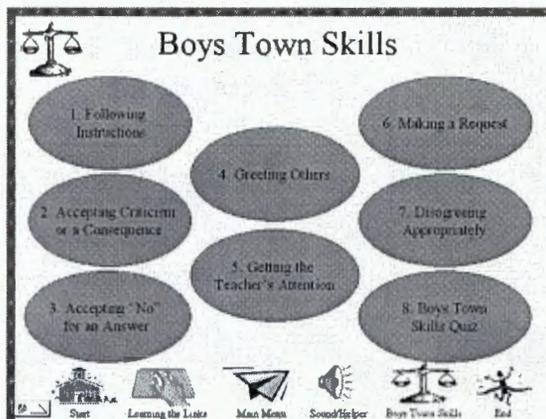


Layout  
Learning the Links Quiz Slide 9  
Yellow background indicates to the learner they are in a quiz.  
Icon in top left show the learner where they're at in the program.

Graphics  
Added graphics on this slide are the sound links that assist the learner in reading the text.

Navigational System  
The learner in this slide is to click on the Boys Town Skills icon as indicated twice by the two individual sound icons.

Content on slide  
Overview of sound links and icons. Audio in this slide tells the learner to go onto the Boys Town Skills.



**Boys Town Skills**

1. Following Instructions
2. Accepting Criticism or a Consequence
3. Accepting "No" for an Answer
4. Greeting Others
5. Getting the Teacher's Attention
6. Making a Request
7. Disagreeing Appropriately
8. Boys Town Skills Quiz

Start Learning the Links Main Menu Sound/Eyeper Boys Town Skills End

Layout (BTS)  
Boys Town Skills Slide 10  
Background shows the learner they are in a topic area.  
Graphic in left corner shows Learning the Links

Graphics  
Added green buttons show the learner the 8 important Boys Town Skills Links.

Navigational System  
Learner may navigate to any icon below, or to any of the 8 subtopic in the Boys Towns Learning slide.

Content on slide  
This slide show the main subtopic areas with in the Boys Town Skills.

### Following Instructions

1. Look at the person. 
2. Say, "Okay."
3. Do what you've been asked right away.



Back Next

Start Learning the Links Main Menu Sound/Eyeper Boys Town Skills End

Layout (BTS)  
Following Instructions Slide 11  
Background shows the learner they are in a subtopic area.  
Icon in left corner shows the learner where they are at in the program

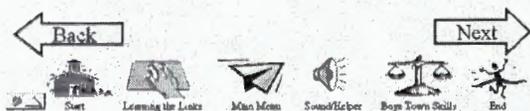
Graphics  
Added graphics will be pictures of students to the right demonstrating the Boys Towns Skills. Audio will also show how the skills are being followed

Navigational System  
The learner may click on any of the icons at the bottom or continue by using the arrows

Content on slide  
Contents show and tell the student how to follow instructions.

### Accepting Criticism or a Consequence

1. Look at the person. 
2. Say, "Okay."
3. Don't Argue



Back Next

Start Learning the Links Main Menu Sound/Eyeper Boys Town Skills End

Layout (BTS)  
Accepting C and C Slide 12  
Background shows the learner they are in a subtopic area.  
Icon in left corner shows the learner where they are at in the program

Graphics  
Added graphics will be pictures of students to the right demonstrating the Boys Towns Skills. Audio will also show how the skills are being followed

Navigational System  
The learner may click on any of the icons at the bottom or continue by using the arrows

Content on slide  
Contents show and tell the student how to accept criticism or a consequence.

## Accepting "No" for an answer

1. Look at the person. 
2. Say, "Okay."
3. Stay Calm
4. If you disagree, ask later.



<p>Layout (BTS) Accepting "No" Slide 13 Background shows the learner they are in a subtopic area. Icon in left corner shows the learner where they are at in the program</p>	<p>Graphics Added graphics will be pictures of students to the right demonstrating the Boys Towns Skills. Audio will also show how the skills are being followed</p>
<p>Navigational System The learner may click on any of the icons at the bottom or continue by using the arrows</p>	<p>Content on slide Contents show and tell the student how to accept "no" for an answer.</p>

## Greeting Others

1. Look at the person. 
2. Use a pleasant voice
3. Say, "Hi" or "Hello."



<p>Layout (BTS) Greeting Others Slide 14 Background shows the learner they are in a subtopic area. Icon in left corner shows the learner where they are at in the program</p>	<p>Graphics Added graphics will be pictures of students to the right demonstrating the Boys Towns Skills. Audio will also show how the skills are being followed</p>
<p>Navigational System The learner may click on any of the icons at the bottom or continue by using the arrows</p>	<p>Content on slide Contents show and tell the student how to greet others in a proper manner.</p>

## Getting the Teacher's Attention

1. Look at the teacher. 
2. Raise your hand.
3. Stay calm.
4. Wait until the teacher calls your name.
5. Ask your question.



<p>Layout (BTS) Getting T's Attention Slide 15 Background shows the learner they are in a subtopic area. Icon in left corner shows the learner where they are at in the program</p>	<p>Graphics Added graphics will be pictures of students to the right demonstrating the Boys Towns Skills. Audio will also show how the skills are being followed</p>
<p>Navigational System The learner may click on any of the icons at the bottom or continue by using the arrows</p>	<p>Content on slide Contents show and tell the student how to get the attention of a teacher in the correct manner.</p>

### Making a Request

1. Look at the person. 
2. Use a clear, pleasant voice.
3. Explain exactly what you are asking for. Say, "Please."
4. If the answer is "Yes," say "Thank You."
5. If not, remember to accept "No" for an answer.



<p><b>Layout (BTS)</b>                  Making a Request Slide 16                  Background shows the learner they are in a subtopic area.                  Icon in left corner shows the learner where they are at in the program</p>	<p><b>Graphics</b>                  Added graphics will be pictures of students to the right demonstrating the Boys Towns Skills. Audio will also show how the skills are being followed</p>
<p><b>Navigational System</b>                  The learner may click on any of the icons at the bottom or continue by using the arrows</p>	<p><b>Content on slide</b>                  Contents show and tell the student how to make a request.</p>

### Disagreeing Appropriately

1. Look at the person. 
2. Use a pleasant voice.
3. Say, "I understand how you feel."
4. Tell why you feel differently.
5. Give a reason.
6. Listen to the other person.



<p><b>Layout (BTS)</b>                  Disagreeing Slide 17                  Background shows the learner they are in a subtopic area.                  Icon in left corner shows the learner where they are at in the program</p>	<p><b>Graphics</b>                  Added graphics will be pictures of students to the right demonstrating the Boys Towns Skills. Audio will also show how the skills are being followed</p>
<p><b>Navigational System</b>                  The learner may click on any of the icons at the bottom or continue by using the arrows</p>	<p><b>Content on slide</b>                  Contents show and tell the student how to disagree appropriately in the classroom.</p>

### Boys Town Skills Quiz

What skill focuses on staying calm and asking later if you were told "No" to something you asked? 

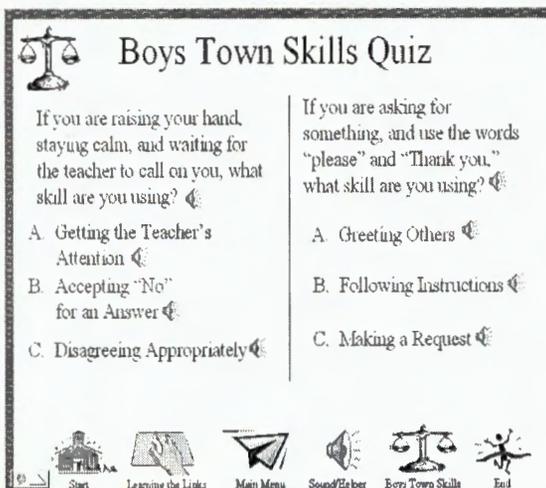
- A. Accepting "No for an Answer" 
- B. Getting the Teacher's Attention 
- C. Following Instructions 

When you meet someone for the first time, what skill should you use? 

- A. Disagreeing Appropriately 
- B. Greeting Others 
- C. Accepting Criticism or or Consequence 



<p><b>Layout (BTS)</b>                  Boys Town Quiz Slide 18                  Yellow background indicates to the learner they are in a quiz.                  Icon in top left show the learner where they're at in the program</p>	<p><b>Graphics</b>                  Added sound graphics added to assist the learner in reading the questions and choosing the correct answer.</p>
<p><b>Navigational System</b>                  The learner may click on any of the icons at the bottom or continue by using the arrows. There will also be feedback on the answers given.</p>	<p><b>Content on slide</b>                  Contents on this slide will require students to click on sound icons to read the questions and to answer appropriately</p>



**Boys Town Skills Quiz**

If you are raising your hand, staying calm, and waiting for the teacher to call on you, what skill are you using? ☞

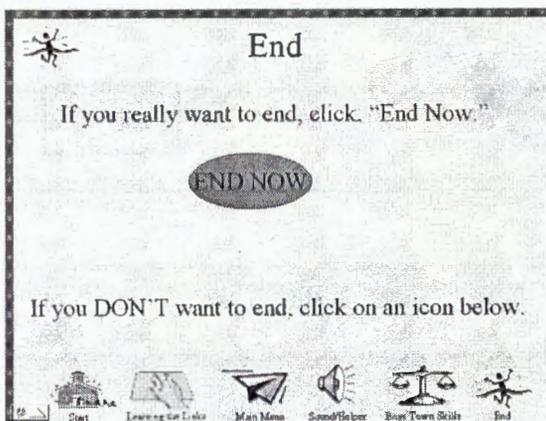
A. Getting the Teacher's Attention ☞  
 B. Accepting "No" for an Answer ☞  
 C. Disagreeing Appropriately ☞

If you are asking for something, and use the words "please" and "Thank you," what skill are you using? ☞

A. Greeting Others ☞  
 B. Following Instructions ☞  
 C. Making a Request ☞

Start Learning the Links Main Menu Sound/Helper Boys Town Skills End

<p><b>Layout (BTS)</b>                  Boys Town Quiz Slide 19                  Yellow background indicates to the learner they are in a quiz.                  Icon in top left show the learner where they're at in the program</p>	<p><b>Graphics</b>                  Added sound graphics added to assist the learner in reading the questions and choosing the correct answer.</p>
<p><b>Navigational System</b>                  The learner may click on any of the icons below, and if they feel they are finished the will be instructed to end the program. There will also be feedback on the answers given by the students</p>	<p><b>Content on slide</b>                  Contents on this slide will require students to click on the questions on the slide, and click on the sound icon to tell them if they are correct, or incorrect.</p>



**End**

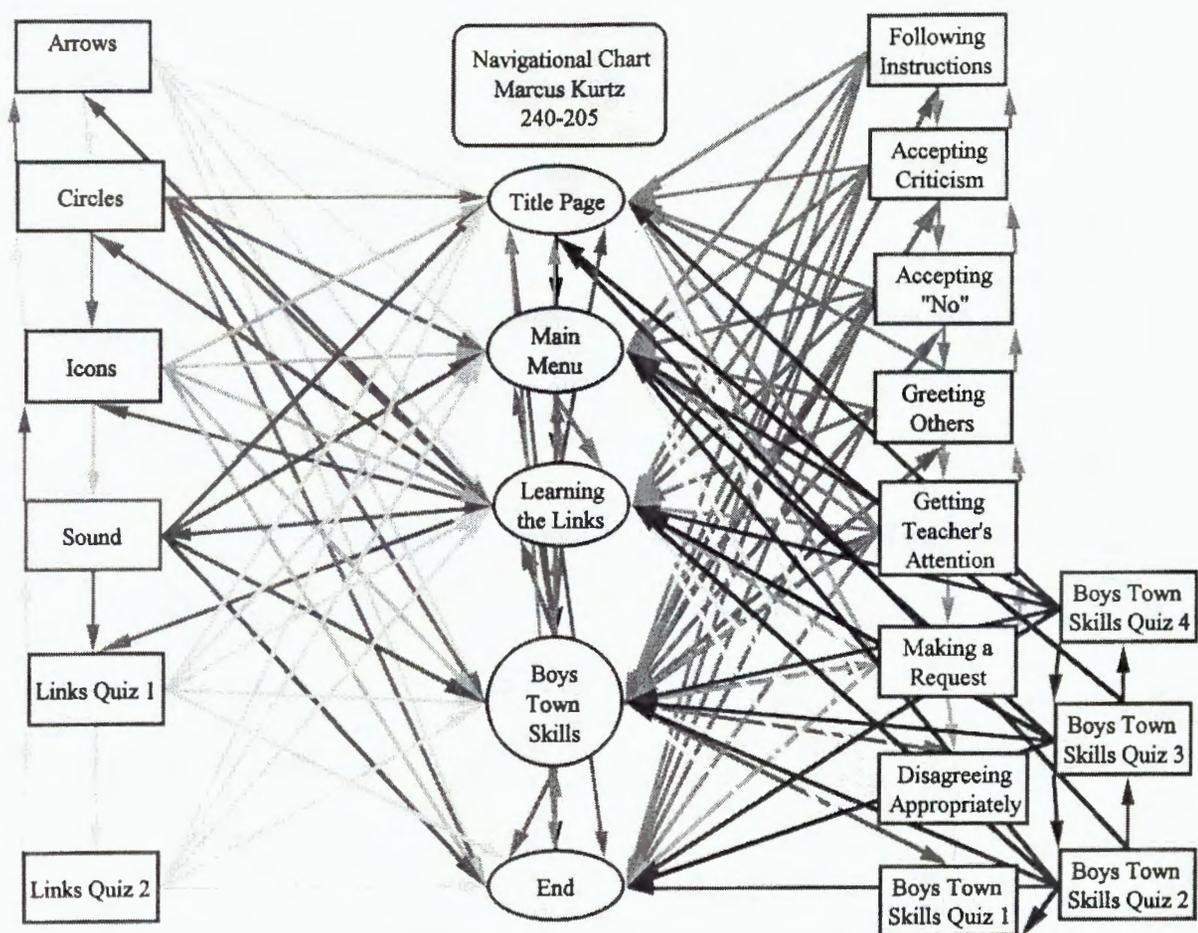
If you really want to end, click. "End Now."

**END NOW**

If you DON'T want to end, click on an icon below.

Start Learning the Links Main Menu Sound/Helper Boys Town Skills End

<p><b>Layout (BTS)</b>                  End Slide 20                  Background shows students they are in a main topic area. Icon in left corner shows where they are at in the program</p>	<p><b>Graphics</b>                  The graphic added on this page is a green button to assist students in deciding to end the program.</p>
<p><b>Navigational System</b>                  Students may choose any icon at the bottom to go back into the program, or click on the end now button to take them to the Wilson homepage.</p>	<p><b>Content on slide</b>                  Instructions will be given verbally to continue. They may continue by clicking an icon or end and go to the Wilson Homepage.</p>



Developing: C

Alpha Test: 1

Style Manual Evaluation: 1.1

Look and Feel: 1.11

Logo: 1.111

All logos fit and are in the desired locations. There were some problems with too many sound icons, so, the main pages were read aloud.

Font: 1.112

Times New Roman used. Font's on some of the Boys Town Skills slides had to be altered in size to make all of the steps fit, but text still easily readable.

### Text Headings: 1.113

All titles checked for the same size font. Placement of the heading of the Boys Town Skills are altered due to the amount of words in a title.

### Use of Color: 1.114

Backgrounds outlined in the style manual were adhered to. There was an addition of a light background, yellowish in color for the quiz pages.

### Screen Layout: 1.115

There was an addition to making an icon at the top left corner of each slide to remind the learner what topic area they are in. Icons were placed in the same area for each slide, so that the learner knew where the icon was going to be on the next slide.

### Style Conventions: 1.12

#### Grammar: 1.121

Audio voices in the program were checked for grammar, as well as the text. Audio was changed numerous times to convey a effective, clear message.

#### Punctuation and Spelling: 1.122

Both punctuation and spelling were checked on the spell checker, but also in trial runs of the program.

#### Language: 1.123

There is one language barrier and that is the topic itself is called Boys Town Skills and Behaviors. Students have already been informed in previous years where the Boys Town model originated from, and why it is given that name.

#### Cultural/Age: 1.124

Tara Hawkins, the resource teacher, checked over the language of the program, and found

it extremely accommodating for her students. Where she thought a student could not read a word, it ended up being on the sound helper.

Graphics: 1.125

To attract the learner's attention, graphics of main topic areas appear in various formats. The attention of the learner immediately goes to the topic area when they see it moving.

Functionality: 1.13

Information size: 1.131

There is a problem with the size of the file. The program will thus be put on the district folder with all of its sound files, so that there is fast, easy access to the Boys Town Skills. CD's of the program will also be made as well.

User Interface: 1.132

Mouse is used throughout the program.

Evaluation Form: 1.2

Item	Acceptable	Needs Work	Comments
Subject matter			
Matches goals		X	In the program students are allowed to fail, so they do not have to recognize with a 100% accuracy rate, but they still have to get the correct answer.
Content structure	X		Structure fits the intended desires
Content accuracy	X		Content was laid out even better in the program, than stated in the Concept paper.
Language, style, grammar	X		All acceptable and sound icons make it easy to follow
Reading level	X		
Cultural bias - language	X		
Cultural bias-reference		X	Might need a picture of a student following instructions that was not Caucasian.
Technical terms and jargon	X		Technical Terms used were explained
Spelling, grammar, and punctuation	X		All checked by the Language Arts teacher
Glossary		X	There was no glossary for words

Hot words		X	There was no page that explained hot word icons
<b>Auxiliary information</b>			
Introduction	X		Added was the creators of the program.
Directions	X		Directions given verbally on every main page, and could be clicked on all of the subtopic pages.
Help	X		Sound Icon acted as a helper on every page
Conclusion	X		Students took a quiz over the topic areas
<b>Affective considerations</b>			
Motivation		X	Learning about the links might need to be sparked up more with some more animation, this is where the learner needs to be paying attention.
<b>Interface</b>			
Displays	X		All displays used were appropriate.
Presentation modes		X	Students have the chance to click on more than one sound icon at a time.
Text quality	X		All text is Times New Roman.
Animation and graphics	X		
Audio	X		All audio recordings are easily heard, and have a consistent noise level.
Video	NA		
Input		X	Students don't put input in, they just click and go.
Spacing	X		Spacing is well laid out, learner can anticipate where things are.

Item	Acceptable	Needs Work	Comments
<b>Navigation</b>			
Navigation aids	X		Good use of navigational aids, and they are in the same location for every slide
Consistency	X		Yes
Restarting	X		May restart at any time
Passive bookmarking	NA		
Active bookmarking	NA		
<b>Pedagogy</b>			
<b>Methodologies</b>			
Interactivity	X		Students need to be interactive in order for the program to work.
Cognitive capacity		X	Students who are already familiar with the boys town skills, and are not troubled students, may need to have a tougher quiz at the end.
Cooperative learning	X		Program could be run with a cooperative learner
Learning Metaphor	X		
Learning strategies		X	Students do not necessarily have to know the Boys Town Skills in order to pass the quiz, and there is no way to score the quiz they they took.
User control	X		Very easy to control
Questions	X		Any questions they have they can refer to the directions by clicking on the sound icons.
Answering questions		X	If a student has a question the program doesn't have a question/answer page
Quality of feedback	X		Clapping and a congratulations are for when they get an answer correct.
Format of feedback	X		Stated previously
Mastery level		X	Student are not mastering the skills in this program, they are merely familiarizing themselves with the materials.
<b>Invisible features</b>			
Records and data	X		Records of the program kept in a small black binder
Security and accessibility	X		It is a read only file in the district folder, or on a CD
Too much data		X	Files are large and hard to transfer, unless done so by CD
<b>Robustness</b>			
For normal user actions	X		Anyone familiar with PowerPoint may use the program
For unusual user actions		X	Anyone unfamiliar with PowerPoint may use the program.
On different computers, software, and browsers		X	On different computers, browsers, etc., all sound files must be transferred along with the program itself. Can be done easily though through creating a CD
<b>Supplementary materials</b>			
Manual - general aspects	X		Easy to run
Manual – program operation	X		Easy to follow along
Manual - program content	X		Text can be read to them or read by themselves
Auxiliary materials		X	No materials with the program, a tougher quiz at the end may be required for higher level learners.
Other resources		X	Other resources not used.

### Formalized Revision Plan: 1.3

#### Problems and Activities: 1.31

1.311 Main Menu icons changed and given motion to grab the learners attention.

1.312 Link subtitles needed the arrows to come after the text was read, so that students couldn't skip through the program without reading or hearing the text.

1.313 Learning the Links quiz a time allotment was needed for the second question, so that students and non-readers could focus on the first question, before the second one came up.

1.314 On the Boys Town Skills slide, I forgot to link number 8. Boys Town Skills Quiz.

1.315 Making sound icons less confusing, I numbered them after seeing my client, Eriece, fail to click on the right sound icons.

#### Time Estimates: 1.4

Time estimates were discussed by Eriece and I, we had 5 students try the program out and estimated about one full class period for this activity.

#### Deadlines: 1.5

All met by client and Marcus Kurtz

### Beta Test: 2.0

#### Selection of Learners: 2.1

Learners selected were 3 males and 2 females. 1 male students was in the SCI program, which is a special needs child with reading, and there was one female students that was in special education. There was also one PACT student involved, which means they were in many talented

and gifted programs.

#### Explanation of the Procedure: 2.2

I prompted the learners to the Boys Town Skills and Behaviors that they follow in school. I told them that the program would be a good introduction to give at the beginning of 6<sup>th</sup> grade. I asked them to think like the sixth graders they used to be at the beginning of the year. The introduction I gave them to the software consisted of telling them they needed to just click on the mouse buttons, and listen to the voice directions in the program. I told them that the program was in three parts, the first part is learning what the links were, the second part was learning what the boys town skills were, and the 3<sup>rd</sup> part was the quizzes at the end of each of those sections.

#### Subject Matter Known: 2.3

I asked all of them questions in a group setting of 6 including myself. They weren't really sure what the Boys Town Skills were. One student told me that they were the "look at the person, say ok, and do it right away rules." I prompted a couple of the Boys Town Skills that were not in the program to jump start their thinking.

#### Observations of Students Going Through the Program: 2.4

Observations that I found when looking at them running through the program, was that I had too many sound icons. The students really didn't have a clue as to which ones to click on. Students were also clicking on more than one sound icon at a time, meaning that they could hear two voices at the same time. They asked me if they were going to have their names on the project, because they helped me create it. On subtitles of the Boys Town Skills, I had to make the sound icons appear after the text and pictures were read so that students couldn't skip through the program by clicking the back and next arrows. On the Boys Town Skills Quiz, sound icons were added so that non-readers could have the questions read to them. One student asked me

what the question asked, and that keyed me in that I needed something there to read the questions.

#### Interview with Students after going through the program: 2.5

I interviewed the students afterwards in the same small group session and prompted them with questions. These were the questions that I asked. I asked what they felt about the program. Their response was that it was pretty cool. I then asked them what they like about the program. In responding students commented that they were in control of the program, and that if they ever needed help they could just go back, or click on the sound. I asked them what did they think about the quizzes. They said that the one quiz was easy because the answers just came up, and that it should have been the same as the last quiz. I asked what did they like on the last quiz that it should be the same. Their response was that they liked the horn when they missed the question, and they liked the clapping when they got it right. My last question was what didn't they like about the program. They said the sound icons were a little confusing, and that they should be numbered.

#### Assessing Students' Learning: 2.6

This program is intended as an overview of the Boys Town Skills, the real application comes inside of the classroom during the school year. The quizzes in the program itself are a self-test for their learning. Later in the school year when I refer to the Boys Town Skills, they'll be able to recall what they have done in the program.

#### Problems, Activities, and Revisions: 2.7

2.71 Too many sound icons, and students clicking on more than one at a time. Revision made was that the sound icons in the Boys Town Skills slides were reading the skills aloud to reduce the amount of icons. Sound icons were also numbered for easier use. There was also a

problem with some of the questions not being read, and some non-readers thus had problems with the quiz. The fix to this was adding a sound icon that read all of the questions.

2.72 Arrows at the bottom were changed to appear after the sound icons have been read.

This was done so that students could not skip the program by clicking the next arrow before all of the information had been given to them.

#### Time Estimates and Deadlines: 2.8

Time estimates and deadlines still remain the same as the alpha testing estimates and deadlines. We still feel that this program would take one class period, 45 minutes of time, and the deadlines are still Marcus' to make sure all of the time requirements are adhered to.