# Burning a CD Using Roxio Easy CD Creator:
# A self-instructional module

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# Product Report I

## Executive Summary

Faculty at UNCW use technology every day in their jobs. Whether it's sending an e-mail, typing up a report, creating a database, or PowerPoint presentation, they are expected to be fluent in the various programs. It is also important for faculty to understand how to properly save and archive electronic documents.

The way that faculty save their work has changed over time. USB drives and CD-ROM drives have replaced floppy discs because they have more file storage space and are more reliable. For long-term storage, a CD-ROM is a better choice than a USB drive. Even with all these changes and the expectation that faculty will keep up with new technology, some faculty members do not know how to burn files onto a CD. In order to help these faculty members we have designed a self-instructional module for burning files using Roxio Easy CD Creator 5 software. With this self-instructional module, faculty will be able to learn how to do this task on their own. Thus saving time because neither the on-campus Technology Assistance Center (TAC), nor their assigned computer consultant will need to aid them with this basic task.

to have to call TAC to walk them through the process or having someone from ITSD come out to their office to do it for them.

Our self-instructional module is designed to include the following goals:

- Procedure for finding the files they want to burn on their computer
- Identifying the types of files
- Procedure for finding and opening the Roxio program
- Procedure for burning a CD-ROM
- Procedure for labeling their CD

## Needs Assessment

### *What is happening?*

The University is in the process of phasing out computers with floppy drives. Faculty are expected to keep up with the technology changes and learn how to use other resources for saving their files. However, there are a good number of faculty members who do not know how to burn a CD. They feel this process is hard and believe that saving their files onto a floppy disk or a USB drive is easier and will be able to last during long-term storage. Both the computer consultants and TAC no longer have time to help these faculty by burning CD-ROMs for them because they have more important things to do. They believe that the faculty should know how to do this task already and will no longer help them in the future.

***What should be happening?***

Faculty should know how to burn their files onto a CD-ROM using the Roxio program not only for short-term usage but for long-term storage as well. CD-ROMs are more reliable than floppy disks and USB drives. The information concerning how to burn a CD using Roxio should be made available for them so they no longer have to bother calling TAC or having somebody from ITSD come out and do it for them. They also will be more technologically competent and will no longer need to bother their colleagues for help with another basic task.

***The Gaps***

- The university is phasing out computers with floppy drives
- Faculty can no longer call TAC or have somebody from ITSD come out and help them through the process of burning a CD-ROM
- Colleagues of the faculty do not have the time to walk them through the process
- There is nothing for faculty to follow to help them learn how to burn a CD

***Strategies for solving the gap***

- Development of training materials for faculty to refer back to
- Publish these materials on a CD-ROM so faculty can complete training on their own time and access them anytime they feel necessary
- Give these faculty the confidence and resources so they are able to learn this task on their own and will no longer have to rely on others to help them with it

With our self-instructional module and the CD-ROM format we created, we have been able to meet all the strategies we found necessary. The CD-ROM self-instructional training module has helped to teach the faculty how to do this task and solve the problems of having them contact others to help them out.

## Instructional Goals

Our main goal for our self-instructional module is:

- **Faculty will be able to demonstrate applying procedures for creating (burning) data and music CD's using Roxio Easy CD Creator 5 (R)**

The following are sub-goals for our module:

- **Faculty will demonstrate finding and locating the file that they want to burn (R)**
- **Faculty will demonstrate finding the Roxio program and opening it (R)**
- **Faculty will demonstrate copying the file to the CD (R)**

- **Faculty will demonstrate exiting the program (R)**
- Task analysis can be found in Appendix 1

## Theoretical Orientation and Rationale

Roger Schank's "learn by doing" theory (also known as Goal Based Scenarios) is often used when training adult learners. This model does an excellent job of addressing many of the drawbacks of the previous paradigm of instructional design. Case-based reasoning (CBR) plays a major role in how this model works. CBR is a "theory of how we remember and how we use memories in order to solve new problems" (Reigeluth 166). This is the basis for how this whole model works. Schank argues that CBR is the way people become experts and how most experts reason. An expert is defined as a person with a lot of experiences upon which to retrieve. They can solve problems quickly by simply remembering previous experiences or problems and applying those solutions to the current problem or issue (166). The theory of CBR is the foundation assumption for this whole model.

Instead of learning random facts in a decontextualized context, Case-Based Scenarios are often taken directly from practitioners working in the "real world." This model emphasizes why someone needs to know this information and immediately asks them to apply this knowledge. Another reason this model is impressive is that it tailors itself to multimedia/online learning. This model also encourages project-based learning.

The theoretical basis behind the Learn by Doing model is to improve skill development and the learning of information by applying authentic situations and by applying the skills as they would be used in real life situations. Goal Based Scenarios (GBS) promote the "how to" of learning, which includes learning and using a skill. The learners get to use their hands and perform a series of tasks that they can use later on. Another reason why learners do so well is that they actually learn the content and skills with a particular goal or application in mind. The Learn by Doing model also teaches the desired content knowledge through the use of relevant tasks in order to develop experiences for the learner. This is done in the hope that they will be triggered as memories later when students come across those types of situations later on in life (Reigeluth 165-166).

There are three additional basic assumptions, which are crucial to this model: experience can be transferred from one situation to the next using stories; you must initially fail before learning will occur, and motivation is imperative for higher level learning to occur.

Because it is assumed that experience can be transferred using narratives, stories are a major part of this model. Stories are incorporated throughout this model but first occur in the cover story. The cover story is used to set the stage for the whole model. The cover story should be authentic and produce a real world problem that is dynamic and interesting. Stories are often also incorporated in the resources section where experts are

called upon to tell stories to the learner in order to advance the experiences upon which the learner can draw.

The assumption that one must initially fail before succeeding is called expectation failure. For example, the learner expects to be able to competently assemble a jungle gym but when they put it all together and it quickly falls down, an expectation failure has occurred. The learner expected one thing and something else happened. Because the learner does not want to let down their children, they push themselves to review the process and figure out what went wrong. Schank believes this process is necessary for learning to occur.

We feel that Schank's "Learning by Doing" model is ideal for this module because we are training adult learners. In implementing Schank's model it will be important to develop an authentic scenario which will motivate the faculty to complete the module and learn how to burn a CD. To apply this model to the self-instructional module, it is essential to define the seven essential components of goal-based instruction as it relates to this module.

## Learning Goals

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*The learning goals are divided into process knowledge and content knowledge. "Process knowledge is the knowledge of how to practice skills, while content knowledge is the information that achievement of a goal requires"(173).*

**Process Knowledge:** The purpose of this module is to teach faculty members how to correctly create (burn) data and music CD's using Roxio Easy CD Creator 5.

**Content Knowledge:** Through this module faculty will learn the most effective ways to backup important files, label newly created CDs, and become more computer savvy in general.

## Mission

*It is important to find a mission that is motivational for the learner to pursue.*

The mission for the faculty is to help other faculty members back up their files to CD using Roxio Easy CD Creator 5.

## Cover Story

*The cover story is the background that creates the need for the mission to be accomplished.*

A hacker has broken into the UNCW computer network and infected it with a virus. The smart virus targets all computers on the network. The vice chancellor of information technology has recommended that all faculty members back up and label all of their files

onto a CD. Unfortunately since there is limited technical support and the virus is fast moving the technical support on campus is only available for short questions. You have been chosen by your department chair to, not only back up your own files, but to help the other faculty members in your department back up their files. As luck would have it a training module was recently created by ITSD to train faculty and staff on how to create CDs.

## Role

The faculty member's role is to first learn how to use the software themselves so they can assist other less technologically advanced faculty members.

## Scenario Operations

*Scenario Operations are all of the activities the learner completes on the way toward the goal.*

Faculty will engage in a number of activities demonstrate their ability to find the file that they want to burn, finding and opening Roxio, copying a file to a CD, and exiting the program.

## Resources

*Resources are what provide the information, which allows the users to meet the goal or mission.*

Faculty will have access to a multimedia tutorial generated in Microsoft PowerPoint in addition to print-based workbook. In addition faculty will have access to other faculty members who have already backed up their files who tell them how easy it is to do and how they also enjoy making music CDs following the same process. The faculty members hear these stories and recognize that this is something valuable that they should be doing. This will help them with any motivation issues they may be having.

## Feedback

*Feedback in Learn by Doing should be given only when necessary or to use Shank's terminology, "just in time."*

One form of feedback will occur when the faculty member creates a CD and it does not work. This is a negative consequence. Coaching will be available from technical support personnel on campus.

## Learners' Entry Behaviors (See page i. in Appendix 1)

***Entry behaviors:***

The learner's entry behaviors are that they have little to no experience with the Roxio Easy CD Creator software and burning files onto a CD. The learners have worked with CD-ROMS before (both music CD-ROMS and CD-ROMS with data files on them) and have also saved different types of files using the various Microsoft Office programs to other media storage devices (i.e., floppy disks, hard drive, flash drive). They have also used the Internet to find music and play music files on their computers.

***Prior knowledge:***

The learners as mentioned above have little to no experience burning a CD. Learners have experience using Microsoft Office, basic working knowledge of the Microsoft XP operating system, knowledge on the basic components of the computer, and possess basic computer skills. They also have experience saving and opening documents to other storage media and using the CD-ROM drive to play various types of CDs.

***Attitudes toward content:***

Learner interview results suggest that learners will use this task to further their computer skills and to use in their every day jobs. They know and understand that this is a very relevant task that they should possess and that they will not always have some one to call for such basic technology assistance. Because they have busy jobs and lives, having this self-instructional module CD-ROM will help them learn this skill on their own time and at a location of their choice.

Having the module on a CD-ROM with detailed conceptual information, allows the learner to know exactly why they are doing this. It also makes them feel more comfortable because if future questions arise, they will be able to refer back to CD-ROM module.

***Attitudes toward potential delivery system:***

Learners have experienced both live instructional workshops and web-based workshops that have helped them do their jobs and improve their technological skills. Having a self-instructional module CD-ROM is exciting for them because they will not have to take time out of their busy lives to attend a workshop and they will be able to complete the module wherever there is a computer with a CD drive. The CD-based module is convenient for them and they are willing to take the time on their own to work towards obtaining the goal of learning to burn files onto a CD.

***Motivation for instruction (ARCS):***

The faculty members/learners realize that this process is an important step in improving their computer skills to the level of their younger colleagues. According to the data, it will save the learners time by not having to wait on somebody else to do it for them, it will improve the reliability of their skills, and it will improve their outlook, self-image, and skill level at work. The learners are confident that they will retain these skills for future use after completing the module. Every day at work, the learners work with saving and opening various data files, using the Internet, and CD-ROMS, so now they will be able to burn files onto a CD themselves in order to archive important files.

***Educational and ability level:***

All the learners have earned a minimum of a Bachelor's degree from a university, with the majority holding a doctorate. They all have a basic working knowledge of the PC, Microsoft Office Suite, and the Windows XP operating system. They also have above college-level reading and writing skills and speak English fluently. Even though their backgrounds are very diverse, they all possess little to no experience using Roxio and lack the ability to properly burn files onto a CD.

***General learning preferences***

According to the data, most of the learners work on a visual level, and are active in their learning. There are also a higher percentage of visual learners rather than auditory learners. Despite their diverse preferred learning styles, they all expressed an interest in having self-instructional CD-based modules so that they can learn how to burn a CD and use the Roxio program. They are excited to learn this skill and have it in their repertoire.

***Attitudes toward training organization:***

Overall the learners are happy with their jobs and have a positive attitude when it comes to learning new skills. They believe that this module will help them do their jobs better in the future. It also will help them improve their working relationships with their colleagues and with the TAC because they will no longer need to rely on them and their time to complete something they can now do on their own.

***General group characteristics:***

The learners are all adults between the ages of 28 and 60 years old and vary in cultural and socio-economic backgrounds. Since the learners are adults, they will need to have clear and concise instructions that are easy to understand. Since the module is self-instructional, the learners will be able to go at their own pace. According to the data, it should be broken up into small steps with bullets and relevant information. It should also include graphics of screenshots from Roxio so that the learners will know where they are at all times during the module and they will not get lost in taking the steps.

## Performance Context (See page ii. in Appendix 1)

***Managerial/supervisory support:***

The Technology Assistance Center (TAC) is available during the workweek for guidance. Learners will also be able to contact their department's computer consultant and their other colleagues either via e-mail or during office hours if they need any extra help. They could also schedule an appointment with the TAC or the consultant if they have a specific time they need to meet, but the learner must keep in mind that TAC and their department's consultant have busy schedules and may not have the time to answer every question that comes up.

***Physical aspects of the site***

**Facilities:**
The learners will either be working at their office, which are equipped with computers with a CD drive capable of burning a CD, the Roxio software, Microsoft Office XP, broadband Internet capabilities and access to the school's network, or at home if their computer has the same equipment.

**Resources:**
TAC, Computer Consultants, the Internet, and their colleagues.

**Equipment:**
A computer with a CD drive capable of burning and reading a CD, blank CD's, the Roxio Easy CD Creator software.

**Timing:**
The learners will have all the time they need on their own to complete this.

***Social aspects of the site:***

**Supervision:**
The learners will be working alone either at their office or at home.

**Interaction:**
The learners will be working independently in the field. If they have any questions they can ask their colleagues or TAC for help.

**Others effectively using skills:**
The learners completing this module are doing so they can learn the skills already in use by their colleagues.

***Relevance of skills to workplace***

**Meet identified needs:**
The learners are meeting the skill levels of their colleagues so they no longer have to rely on them to do burn the CD for them.

# Product Report II

## Performance Objectives and Assessment Instruments

*See page i. in Appendix 2 for Chart*

## Instructional Strategies

### *Sequence of Instruction*

The instruction is carefully sequenced into steps that breakdown the task into easy to follow directions. It provides the learner with a step-by-step guide to successfully complete the task. During various points in the instruction, the learner will be able to stop and review what they have just covered in a quiz type format to insure that they have not missed a step and fully understand what they have just learned. Learners are presented with general information in the beginning of the module and then move through the sub skills towards the main steps in the order that would be required to complete task independent of the module. These steps are in the sequence for a reason and learners must follow steps in the proper order to succeed.

### *Informing the Learner of the Goal*

The learner is presented with objectives at the beginning of the instruction and during various parts of the instructional module. When they have a chance to stop during the module to review what they have just learned they will also be informed of the objectives once more.

### *Attention of the Learner*

The learners' attention is held through constant active participation and frequent review and self-assessment sections.

### *Presenting the Problem*

The learner is presented with the main problem in the beginning of the instruction via the PowerPoint presentation. Learners are also given clear step-by-step pictures and text about what they need to be learning during the presentation. The assessments at each of the stopping points are given to them in print so that they can assess what they have just viewed on the screen.

### *Structure and Content of Instruction*

Both print materials for the assessments and a module developed using PowerPoint comprise all of the instructional materials. All the new materials will be covered within the PowerPoint modules. The screenshots taken from Roxio will help the learners reinforce what they are learning and what they expect to see while they are following the

module. After learning the steps the learner will be able to reinforce the content by independently completing the process as many times as necessary. Coaching will be provided in the form of assessments to track their progress. After each chunk they will be given a checklist to see if they are following the steps in the proper order.

We also took Roger Schank's "Learn by Doing" model to help structure the instruction. A cover story and narrative were used to capture the learner's attention. Specific goals for each section were set, and an authentic situation to motivate the learner should help the faculty learn the relevant skills of our module. Using these methods will allow the learners to complete this self-instructional module because they were given and learned the relevant information to complete this task **(Please see the Performance Objectives and Assessment tools chart on page i. in Appendix 2 for more information)**.

***Teaching and Assessing the Terminal Objective***

The terminal objective in this module will be taught in steps that allow learners to chunk relevant information together in order to successfully complete the task. At the end of each chunk the learner will be able to stop and assess what they have just learned by means of a paper assessment packet. At the end of the module the learner will complete a summative assessment, which includes going back and completing the task themselves. They will be given a checklist to work with in order to make sure they are following the steps in the appropriate order **(Please see Assessment items on page v. in Appendix 2 for more information)**.

## Product Report III

## Results of One on One Evaluation

Before we began the one on one evaluation, we completed the design and development of appropriate instructional materials. These instructional materials consisted of a 43-slide power point presentation on a CD-ROM and a four-page assessment booklet. Also included was a blank CD-ROM for the learners to use when they did the final assessment at the end of the instructional module. Learners worked through the slides of the instructional module and used the assessment booklet at different intervals when instructed to do so in the module. The instruction is divided into four sections and after each section is complete, the learner is instructed to complete the assessment on the content for that section. Each section builds on one another, so each must be completed sequentially before moving on to the next.

Once the materials were completed, our next task was to choose three learners to test the module in a one on one setting. We choose three learners who had working knowledge about computers and software, but wanted to learn more about burning a CD properly. Learner A is an English faculty member who has been using computers for a couple of years and has a good working knowledge of the various Microsoft Office programs. She has just stopped using floppy disks as a means of computer file storage and wants to learn more about how to properly burn CD-ROMs. Learner B is an older Science faculty member who has recently starting using computers on a more regular basis. Two years ago she slowly learned how to use PowerPoint and has started incorporating this tool into her classroom lectures, something she thought she would never be able to do. She is very eager to learn and is willing to take time out of her busy schedule to learn how to burn a CD. Learner C is a History faculty member who is very computer savvy and always wants to learn something new. He has never bothered using the CD burning software the school has provided him or using CD-ROMs for backup storage, but recently his computer crashed and he lost a lot of his files. He now realizes that backing up his files is something that he needs to start doing. He wants to learn more about what he can burn onto a CD so that if something happens to his computer in the future, he will be prepared. All three had varying levels of ability and/or confidence with the topic being presented and were able to answer the pretest questions without any difficulty.

After the three learners had been selected to participate, we met with each of them at a specific time so we could explain the module to them and have them complete it. All three learners worked on the module in their office on campus. Each of the learners was given the CD containing the PowerPoint presentation module and the assessment booklet, as well as a blank CD-ROM for the final assessment. They were given a verbal explanation as to the purpose and structure of the module and then asked if they had any questions. Learners A and C felt confident and had no questions while Learner B felt like she was going to have trouble navigating the module, but once she got started she relaxed and gained confidence in her abilities.

During the module we listened to the learners, took notes and answered any questions they had. All three of the learners had no trouble navigating through the module since they all had used PowerPoint before. Learners A and C had no problems completing the module or doing the final assessment on their own. They found the module easy to understand and follow and concluded that burning a CD was easier than they thought it would be. Learner B worked at a slower pace than the other two learners but did a fairly good job answering the questions and understanding the materials. She had a hard time finding the Roxio program because the icon was not on her desktop, and when she went to the Start menu she kept clicking on the wrong program. When she finally got into the Roxio program, the only things she had trouble with were finding her source files in the top menu and changing the name on her CD. Once she reread the questions she understood the task better. Learner B also had to look back at the module a few times when completing the final assessment.

At the end of the module, all three learner's CDs worked properly and were happy that they did not have to provide their own blank CD to complete the final module. The only complaint about the module was the background of the presentation. We first had decided to use a lighter background that had a computer theme, but the learners said that in some places it was hard to read the text. In the final module we changed the background to a more appropriate yet still creative background. Learner B also said it was confusing to keep switching back and forth from the computer screen to the paper packet containing the assessment questions, but all in all we had done a good job coming up with the instructional materials **(Please see Objective Analysis Table for One on One Evaluation on page i. in Appendix 3.)**

At the end of the module each of the learners answered the exit survey questions at the back of the assessment booklet. The results were as follows:

1) What did you like about this learning module?
    a. How we got to go back and burn the CD on our own at the end and it was easier than I thought to complete
    b. Learning something new that I could possibly use in the future and go back to if I have any questions.
    c. Being able to learn something that I could use to back up my important files.

2) What were some things you did not like about this learning module?
    a. Nothing, if I could do it, anybody can!
    b. Having to go back and forth got confusing and I got confused trying to find my source files on my computer.
    c. Nothing.

3) Would you recommend any changes?
    a. Not a thing!
    b. Change the background on the slides; the text was hard to read in some places.

   c. The background on the slides needs to be another color or pattern or something, parts of it were distracting from the text.

4) Were the module information and directions clear enough?
   a. Yes, very clear
   b. Yes
   c. Yes

5) Did you feel pressured for time in completing the module?
   a. Not at all!
   b. At first I was nervous because I'm not very good with computers, but I'm glad that I could take my time completing the module.
   c. Nope

6) Do you have any other comments?
   a. No, thanks for asking me to participate!
   b. No
   c. No

**PowerPoint Module Changes**

- The background was changed to be less distracting and the text was made easier to read.
- Because of Learner B, the Source files slide wording was changed to make it less confusing for people who are not computer savvy.

## Results of Small Group Evaluation

The small group evaluation took place in one of the computer labs on campus on a day that there were not a lot of students on campus. Learners for this small group evaluation volunteered to complete the module because they wanted to learn more about burning a CD-ROM. Ten learners participated and were allowed to come in at a convenient time in the morning. Because they could come in and out of the lab on their own time, the module took half of the day to complete, and no one took more than an hour to complete the module.

Each learner was given a brief explanation of the purpose and organization of the module when they arrived at the site. They were then given both the instructional module presentation CD and the assessment booklet. Learners were instructed to follow all information in the order it was presented and complete assessments when instructed to do so. Everyone was motivated to participate in this learning module. All learners were excited about finally learning how to burn a CD and learning to use Roxio since it comes standard on their office computers.

The small group included seven learners with high technical and computer skills, while the other three had various degrees of computer skills, ranging from "just enough" in their own words to moderate. All ten learners were familiar with PowerPoint and the relevant hardware and software needed to complete the module. The seven with higher computer competencies were more skillful in PowerPoint than the other three.

All learners understood the concepts of the module and that they could not interact with the instructors or other learners participating in the module. The learners had no problems taking the pretest or maneuvering through sections one and two. Most of the learners had no problem with section three either, however, a few got confused with certain parts of section three, mainly dealing with finding their source files in Roxio and labeling their CD.

When the learners completed their module they then went back and completed the concepts of the module on their own, burning some of their files onto the blank CD provided to them. When each was finished, they were instructed to open their CD to make sure it worked properly. After doing so, they were instructed to take the exit survey at the end of the assessment packet and return it to the instructors.

After we reviewed the pretest and the rest of the assessments, we were surprised at the overall results. Most of the learners had mastered the concepts presented to them and had not missed any of the questions on the assessments. There were only two learners who missed one or more questions but had done well on all the others. Learner three missed the question dealing with finding source files to burn and also missed the question about labeling her CD. Learner seven also missed the question about finding their source files. Despite these two learners missing questions, everyone was successful in completing the final assessment of the terminal objective.

We believe that the learners missed the questions pertaining to locating source files because they did not pay attention to the module at that particular time. They were confused because they didn't remember where they had saved the files that they wanted to burn on the CD and therefore had to take a while searching the computer for them. The learner who missed the question on labeling the CD admitted that it was a careless error on their part. They had remembered going over it in the module but when it came time to burn the CD herself, she forgot to do it. We believe that if those learners that made careless mistakes had taken more time they would have answered the questions correctly. They did not have problems with the content and applying the learning to the terminal assessment therefore they must have understood the information being presented and just misunderstood the questions. Overall if we elaborated on that question and if learners slowed down and paid more attention to where their files were, maybe in the future it will not be missed as often and learners will be able to do even better **(Please see Objective Analysis Table for Small Group Evaluation and Graph of How Many Students Mastered Objectives on page ii. in Appendix 3).**

The data collected from the exit surveys is very positive overall **(Please see Exit survey data on page iii. in Appendix 3).** Learners enjoyed learning how to burn a CD properly. They could either use this skill for backing up files for future use on a CD or burning CDs of pictures or music files for themselves or others to enjoy. We believe that overall the module went very well, but it might have worked even better if the learners were able to discuss the module after they were finished, therefore addressing any hidden concerns immediately. We also think that for future use, we should create two different modules, one for more advanced computer users and one for those who are less computer savvy. That might alleviate any frustrations a learner might have.

## Planning and Implementation Log

*See page v. in Appendix 3*