2003

Improving teacher productivity through the use of computer technology

Darcy Jane Coulter

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IMPROVING TEACHER PRODUCTIVITY THROUGH
THE USE OF COMPUTER TECHNOLOGY

A Project
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts
in
Education:
Career and Technical Education

by
Darcy Jane Coulter
June 2003
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Approved by:

Joseph K. Scarcella, Ph.D., First Reader

Ronald K. Pendleton, Ph.D., Second Reader
ABSTRACT

This project addressed the need to develop a handbook, using the Microsoft Office XP suite of products, for use in the classroom by teachers. The literature review outlines the increasing importance of computer technology in today's modern classroom, both for student use as well as that of teachers. Over 80% of the teachers in the profession today received their formal education prior to the beginning of the information age, it is imperative that these teachers enhance their existing skill set with the knowledge of how they can use technology to support their own administration support. In so doing, these teachers can become more efficient and effective at performing these tasks which will provide them with time to develop to preparing and delivering instruction. To accomplish this goal, teachers were sampled to identify five computer projects using Microsoft Office XP they would like learn, and would allow them, in turn, to become more efficient and effective.

Another challenge for teachers is finding the time to take the computer courses which would allow them to develop the skills and confidence to integrate computer technology into their classrooms. Given this, the computerized projects are included in a step-by-step
handbook which can be easily referenced and mastered, and therefore, are not constrained by time. Each project provides step-by-step instructions with graphics to assist the teacher in the use of the software.
ACKNOWLEDGMENTS

I would like to thank my faculty advisor, Joseph Scarcella, Ph.D., for his help, guidance, and support. Dr. Scarcella’s enthusiasm, dedication, and attention to detail were critical components to the successful completion of this project. I also wish to thank Timothy Thelander for his patience and persistence in assisting me with the fundamentals of constructing a master’s thesis and Darren Lamb for providing such great editorial input. Ronald K. Pendleton, Ph.D., I want to thank you for sharing your valuable time to review, critique and review again the thesis. I thank my family for their support and patience during the time spent in classes, at the computer and in performing the various other tasks associated with the completion of this project. A very special thank you goes to my husband, Craig, who put forth a great deal of energy to keep our household running smoothly, and our marriage on track. I could not have done it without him.
DEDICATION

I would like to dedicate this thesis project and the resulting handbook to the many teachers who will benefit from having a handbook developed specifically for their unique needs.
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CHAPTER ONE

BACKGROUND

Introduction

Chapter One presents an overview of the project. The contents of the problem are discussed followed by the purpose, significance of the project, and assumptions. Next, the limitations and delimitations that apply to the project are reviewed. Finally, definitions of terms are presented.

Purpose of the Project

The purpose of the project was to develop a teacher handbook to using computer technology and the Microsoft Office XP software in the performance of their administrative tasks. The handbook was designed to provide teachers with step-by-step instructions that would enable them to automate many administrative tasks that were previously performed manually, without the benefit of computer technology.

Context of the Problem

There is a significant need for teachers to integrate computer technologies and related educational software when performing their work responsibilities. In so doing, teachers will be able to incorporate greater efficiency
and effectiveness when performing these tasks, and will ultimately have more time to devote to teaching students instead of tracking and reporting on student performance.

In his book, The Road Ahead, Bill Gates made the statement, "One thing is clear. We don't have the option of turning away from the future. No one gets to vote on whether technology is going to change our lives" (1995, p. 74). This statement is as true for educators as it is for business leaders who use computers to lead multimillion-dollar companies. Computer technology is available in classrooms and it is impacting the way teachers think about teaching and all that it entails (Hasselbring et al., 2000). Teachers also serve as role models for students. It is easy to recall those teachers who have had an impact on your life. While the reasons may vary, it is important to be mindful of the example teachers set and the impressions they make on a student's life. It is for these reasons that teachers need to demonstrate their computer literacy by using the computer in the performance of their job duties.

The specific context of the problem was to address the problem where teachers are not taking advantage of the computer technology available today which will allow them to increase their productivity and allow them to provide
more comprehensive information because they will be able to drill down on data, and create highly informative reports for parents, students, school administrators and themselves, at the click of a button.

Significance of the Project

The significance of the project was to design a handbook that covers various routine tasks that are being performed manually by teachers, and which if automated, could increase the teachers' productivity and the quality of the work being produced through the successful use of computer technology, and Microsoft Office software. According to a study published in October 2000 by the CBEDS, approximately forty-four percent of the teachers in California were 46 years of age or older. The significance of this statistic is that the majority of teachers in California received their education before computer literacy courses were required as part of there course of study. One can only conclude that in order for these teachers to incorporate the use of computer technology to support the delivery of instruction, the teachers need to be trained. This is why many teachers feel uncomfortable integrating technology into their classroom because they do not possess the skills and knowledge necessary to use.
the computer technology and the Microsoft Office XP software. Beyond this, most teachers do not want, or have the time to enroll in course to develop computer skills and knowledge that may or may not meet their unique needs. The real value of the handbook is that the projects were specifically selected and developed to meet the needs of a teacher, using the Microsoft Office XP software, because of its ease of use and market penetration throughout the United States.

Assumptions

The following assumptions were made regarding the project:

1. Teachers using the handbook will possess the basic knowledge on how to operate a personal computer including creating, modifying, printing and saving files.

2. Teachers using the handbook will have some knowledge of Microsoft Word and Excel, specifically in the areas of formatting, and opening and saving files.

3. Teachers will have access to a IBM compatible personal computer, loaded with Microsoft Office XP.
Limitations and Delimitations

During the development of the project, a number of limitations and delimitations were noted. These limitations and delimitations are presented in the next section.

Limitations

The following limitations apply to the project:

1. The curriculum section of the handbook was designed for use with the Microsoft Office XP Suite of products.

2. The handbook was limited to teacher needs.

Delimitations

The following delimitations apply to the project:

1. The handbook may be altered for use with the Macintosh or Claris Works software and earlier versions of Microsoft Office software.

2. The handbook could be modified to meet the needs of teachers teaching higher education.

Definition of Terms

The following terms are defined as they apply to the project.

Application program - Computer program that accomplishes a specific task, such as word processing or processing
of payroll data (California Department of Education, 2001).

**Database** - A file created by a database manager that contains a collection of information organized into records, each of which contains labeled categories called fields (Rutkosky, 2002).

**Desktop Publishing** - The use of computer software to integrate text with charts and pictures and to design, display, and print high-quality documents comparable to typeset print (California Department of Education, 2001).

**Hardware** - A computer or other piece of technological equipment (California Department of Education, 2001).

**Knowledge Worker** - a person who works with and produces information as a project (Haag, 2002).

**Internet** - a vast network of computers that connects millions of people all over the world (Haag, 2002).

**Mail Merge** - The merging of database information (such as names and addresses) with a letter template in a word processor, in order to create personalized letters (Rutkosky, 2002).

**Scanner** - A device used to translate print media into computer language so that a document can be viewed
and later read on the computer screen (California Department of Education, 2001).

**Software** - The programs used with a computer to perform tasks such as word processing or accounting. The term was coined to contrast with hardware of a computer system (California Department of Education, 2001).

**Spreadsheet** - A computer program that turns a computer terminal into a huge ledger sheet with large columns and rows of numbers that change according to parameters determined by the user (California Department of Education, 2001).

**Storage** - Device, or part of a device. That can retain data; memory (California Department of Education, 2001).

**Word processing** - The production of typewritten documents through automated and usually computerized typing and text-editing equipment (California Department of Education, 2001).

Organization of the Thesis

The thesis portion of the project was divided into four chapters. The first chapter provides an introduction to the context of the problem, purpose of the project, significance of the project, limitations and delimitations
and definitions of terms. Chapter Two consists of a review of relevant literature. Chapter Three documents the steps used in developing the project. Chapter Four presents the conclusions and recommendations drawn from the development of the project. The Appendices for the project consists of: Appendix A Professional Teachers’ Proficiency in Computer-Based Technology; Appendix B Educator Projects using Microsoft Office XP. Finally, the Project references.
CHAPTER TWO

REVIEW OF THE LITERATURE

Introduction

Chapter Two consists of a discussion of the relevant literature. The relevant literature reviewed was separated into nine sections. Specifically, the first section consists of literature providing a framework for the remaining sections. Section two, Teachers' Comfort Level, consists of literature covering teachers' comfort level utilizing technology. Section three, Teacher Training, consists of literature covering teacher training in technology. Section four, Types of Technology Use, consists of literature covering the types of technology in use by teachers. Section five, Teaching Experience, consists of literature covering teacher experience. Section six, Access and Usage, consists of literature covering access and usage of technology in classrooms. Section seven consists of literature covering the obstacles to utilizing computer technology and professional development. Section eight, Obstacles to Utilizing Computer Technology and Professional Development, consists of literature covering computer system requirements. Section nine, Computer System
Requirements, consists of literature outlines the matrix of professional teacher's proficiency in computer-based technology.

Background

Teachers face many challenges in successfully performing their job responsibilities. School administrators and the media are continuously comparing the test scores of U.S. students with those achieved by students from other countries. The pressure U.S. teachers are experiencing to improve student test scores is significant. One tool readily available or soon to be available to all teachers is a computer. While teachers may not feel they have sufficient hardware and software to integrate the delivery of instruction using computer technology, teachers should all be using such to support the performance of their job responsibilities (Trotter 2002 p. 41). And while the problems in our classrooms today are too severe to be solved with computer technology alone, effectively training our teachers and deploying and employing the computer resources can go a long way in enabling teachers become more productive in performing their administrative responsibilities, thereby freeing up
time that can be redirected to the instruction side of their jobs (Wilkes 2000 p. 8).

According to John P. Bailey, the director of education technology for the Department of Education, "you can have the fastest Internet connection, the best computer, and the most sophisticated curriculum software, but if teachers aren't trained in how to use it, it's not going to make a difference in the classroom" (Skinner, 2002, p. 54). The remainder of the literature review presents some of the more important reasons noted for teachers not integrating computer technology to improve their productivity.

Teachers' Comfort Level

There have been numerous research studies that reveal some common results as to why teachers are not jumping at the opportunity to integrate computer technology into their classrooms. The first observation noted in a few studies on teacher comfort with computer technology found that a teachers' comfort level relates directly to the teachers use of technology in the classroom (Milbrath, 2000; Seamon, 2001 a and b). The more comfortable the teacher is with the using computer technology the more likely they will integrate it into their classroom
(Mulqueen, 2001; Schwab, 2001). In a study conducted in 1995 of 72 elementary teachers, it was found that 60% of the teachers avoided using computers and treated computer lab visits as an aimless activity (Milbrath, 2000). Dupagne and Krendl (1992) stated that "teachers who have had computer training are more likely to show positive attitudes toward computer use in the classroom" (p. 423), while those who had no prior experience exhibited high anxiety towards using computer, (Liu et al., 1992). To overcome these barriers, it is essential that teachers be provided adequate computer training to ensure these new tools are effectively employed.

According to a 1999 National Center for Education Statistics study on teacher quality, it was reported that only 20% of all teachers feel "very well prepared" to integrate technology into their teaching (Hasselbring et al., 2000). This suggests that while a classroom can be outfitted with the latest and greatest technology, it is unlikely that it will be used if the teacher is not trained or is uncomfortable with how it can be effectively and efficiently employed to aid in their teaching.
Teacher Training

Teacher Training is important in the successful integration of technology in the classroom, and yet, most teachers said they and not received the technology training necessary to incorporate technology in their classrooms (Jones, 2001). Since very few teachers entering the profession prior to the mid-1980s received instruction that included the use of software applications and computer hardware, district training efforts tend to be focused more on how to use the hardware, instead of covering methodology on how to integrate technology into their classrooms (Hasselbring et al., 2000). Training focused primarily on the hardware leaves a significant void in rounding out a teacher’s skills and information on how computer technology can be integrated into their profession to enhance their personal productivity and expand their instruction methods. To maximize the effectiveness of the training, it should be aligned with the curriculum and be relevant to what teachers are doing in their classrooms (Trotter, 1999).

The more training the teacher has, the more likely the teacher will use technology in the classroom (Milbrath 2000; Mulqueen, 2001; Schnorr, English, Armani, & McCabe 1999; Seamon, 2001 a and b). Along with the ideas of
training it was also found that there are better forms of training. In-service and peer tutoring or teaching worked better to inform the teachers than general college classes (Schnorr et al., 2001; Mulqueen, 2001). The types of teacher training available offered the teacher instruction in the area they felt necessary and let the teacher customize their learning experience.

Some have suggested that teachers shy away from using computers in the classroom because computers cause them to question their existence as educators (Falk, 1987). For teachers to use computer technology, they must view technology as a tool to make their jobs easier. Teachers can also benefit from role models, encouragement, ongoing training, time to explore the capabilities of computer technology, and a supportive environment (Hope, 1997). Teachers need to have sufficient time to practice using computers and have the technical resources available to answer their questions.

Types of Technology Use

Several articles have demonstrated the need for increasing technology available to teachers and students in the classroom (Nelson 2000; Junui, 2001; Molenda, 2002). Several authors have suggested using computer
technology and software in the classroom as a means of delivery different from the normal and more common lecture (Jones, 2001; Junui, 2001). There is an abundance of technology software available to help out in classrooms.

Teaching Experience

The more teaching experience educators have the less likely they are to integrate technology into their classroom. Experienced teachers seem to lack formal knowledge and do not feel comfortable using technology. On the other hand, teachers entering the education field with recent degrees seem better prepared and more comfortable (Anonymous, 2001; Jones, 2001; Molenda, 2002).

Access and Usage

Teachers use computers very little on a day-to-day basis. Access to computers is the biggest barrier for teachers. There are either scheduling conflicts to use labs or not enough computers in classrooms (Anonymous 2001; Molenda, 2002). Further studies have found that uses of technology are limited by both the quantity and quality of the hardware and software available in the schools. While the number of computers in schools has increased in recent years, the inequitable distribution of hardware and software is a problem, often referred to as the "digital
divide.” The U.S. Department of Education found in 1998 that students from more affluent schools as measured by their eligibility for federally subsidized lunches are much more likely to be technologically rich as compared to schools with high minority enrollments and high rate of federally subsidized lunches (Hasselbring et al., 2000).

Obstacles to Utilizing Computer Technology and Professional Development

In his book, *The Road Ahead*, Bill Gates states, “One thing is clear. We don’t have the option of turning away from the future. No one gets to vote on whether technology is going to change our lives” (1995, p. 74). This statement is as true for educators as it is for an automobile mechanic working on today’s sophisticated computerized cars. Computer technology is readily available in our schools, which is forcing teachers to rethink and reengineer their teaching practices. And while the many teachers recognize that they live in a world in which highly refined computer skills offer increased opportunities for accessing new ideas and information, few believe that they have the skills that are necessary to use these tools effectively or to teach their students to do so (Hasselbring et al., 2000). In a study that examined
rural teachers (Matthews, 1998), it was reported that more than one half of the teachers surveys perceived themselves as novices in all aspects of technological use, with less than one half never actually using computer technology for instructional purposes. The data from this study also suggest that the teachers are not likely to use these resources to increase their personal productivity or to support their own professional development.

Several reports cite equipment, software, time and training as the most common obstacles to the integration of computer technology, the elimination of these barriers does not necessarily facility a smooth transition to computer technology use by classroom teachers (Hall, 1997). A study was designed to train and support school-based teams of teachers and administrators to use computer technology, and to further remove all known obstacles to the integration of computer technology in five elementary schools. In this situation, the project coordinators emphasized integrating the technology to support higher level thinking skills. The project appeared to be successful in years one and two, but in the third year when the curriculum was changed, the teachers and administrators felt very constrained to use the new
techniques, and in fact many reverted back to their old teaching methods (Hasselbring et al., 2000).

In another study conducted in 1997 of 298 teachers, it was found that, on average, teachers spend between one to eight hours per year of professional development time on computer technology training. This study further noted that teachers felt that there was (a) insufficient time for experimenting with computer technology and (b) problems with the quality and timing of the training, (c) the length of time that elapsed between training and the acquisition of technology, and (d) problems of malfunctioning computer technology (National Council for the Accreditation of Teacher Education, 1997). These studies clearly suggest that the time, quality and scope of computer technology related training provided to teachers significantly impact the type and degree to which computer technology play’s a role in the classroom today.

Computer System Requirements

It was reported that the ratio of students to computers dropped below 6 to 1 (Hasselbring et al., 2000). However, upon taking a closer look into this fact, one would find that in this count is computer equipment that is outdated and unable to perform more than simple word
processing type functions. The equipment being referred to are old Apple II and 386 computers, which are not powerful enough to function in today’s high functioning computer environment. School districts in California are given the latitude to establish their own hardware and software standards for new purchases (California Department of Education, 2001). At a minimum, new equipment purchase standards should consist of the following:

- 300 MHz or faster
- 128 MB or more for Windows 2000 or 256 MB or more for Windows XP operating system
- 4 GB or larger hard drive
- 10x or faster CD-ROM drive
- High resolution graphics adapter with at least 2 MB video RAM, supporting at least 24-bit color at 800 X 600 resolution.
- Sound support, including speakers and headphones
- 56kbps V.90 modem
- Bundled software, which includes Microsoft office suite.
Matrix of Professional Teachers’ Proficiency in Computer-Based Technology

Appendix A contains the matrix adopted by the California State Board of Education in January 2001 describing the professional teachers proficiency in computer-based technology (Appendix A).

Summary

Reviews of research on in-service teacher professional development agreed that the components of time, sufficient hardware and software, formalized instruction, training curriculum, support, and teacher motivation and commitment play a vital role in increasing the effective integration of technology into the classroom, and allowing for the teacher to improve their personal productivity by utilizing the technology in a supportive role.
CHAPTER THREE

METHODOLOGY

Introduction

Chapter Three documents the steps used in developing the project. Specifically, the population served by the curriculum is presented. Next, the resources and content validation is discussed. Finally, the design of the curriculum is outlined.

Population Served

The handbook was intended for use primarily by teachers who are not presently using the computer to improve their personal productivity. The handbook is also suitable for implementation and adoption by any individual who has a specific application to utilize the projects demonstrated in the handbook.

Handbook Development

Handbook Resources and Content Validation

The source of validation for the handbook was from many sources including Microsoft Office textbooks, general computing textbooks, and an advisory group. The advisory group consists of the following:
Second grade teacher who is over 50 years of age

Third grade teacher who is over 30 years of age

Seventh grade English teacher who is 30 years of age

Special education teacher who is between 40 and 50 years of age

Technical writer who prepares technical computer user documentation as his primary occupation.

Handbook Design

Research on contextual learning gives a format for contextual based lesson plans. According to the Horizons Electronic Lesson Plan Resource web page, lesson plans should include the following:

- The overview should provide the title of the lesson, recommended grade level, recommended timeframe, subject areas, and the objectives of the lesson.

- A brief introduction of what the lesson is about and how the lesson relates to students' prior knowledge.

- The content standards for the lessons presented in the project section of the thesis will be from the Secretary's Commission on Achieving
Necessary Skills Course Competencies and the California State's Professional Teachers' Proficiency in Computer-Based Technology requirements as presented in the literature review.

- The lesson section included the concepts to be taught, the procedures for teaching these concepts, the materials needed during the lesson and how the student's performance will be measured to ensure they mastered the lesson objectives.

Summary

The methodology section of the thesis addressed the population served and the design of the curriculum presented in the handbook. The lesson plan format was based on research on contextual learning.
CHAPTER FOUR
CONCLUSIONS AND RECOMMENDATIONS

Introduction

Included in Chapter Four was a presentation of the conclusions gleamed as a result of completing the project. Further, the recommendations extracted from the project are presented. Lastly, the Chapter concludes with a summary.

Conclusions

The conclusions extracted from the project follows.

1. Based on the review of published books and discussion with experts, the current handbooks in the marketplace, developed specifically for teachers, do not incorporate the most recent capabilities of Microsoft Office XP.

2. A handbook needs to be developed that helps educators utilize the hardware and software readily available which will enable teachers to improve their productivity.

3. Based on the review of literature and discussions with various K-12 teachers, they are not utilizing the software and hardware available to them as they are not familiar
enough with the software and how it can be applied in the performance of their job responsibilities.

Recommendations

The recommendations resulting from the project follows.

1. It was recommended that a handbook for teachers be developed with detailed, step-by-step instructions for utilizing the Microsoft Suite of applications, XP version, to assist the teachers in increasing their productivity and enhancing the learning environment for their students.

2. Create sample projects which are geared specifically for teachers and the type of projects that would be most beneficial for teachers.

Summary

Chapter Four reviewed the conclusions extracted from the project. Lastly, the recommendations derived from the project were presented.
APPENDIX A

PROFESSIONAL TEACHERS’ PROFICIENCY IN COMPUTER-BASED TECHNOLOGY
### Professional Teachers' Proficiency in Computer-Based Technology

<table>
<thead>
<tr>
<th>Factors to Consider</th>
<th>Professional Profile</th>
<th>Performance Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communicates through a variety of electronic media</td>
<td>• Identifies, selects, and uses digital communication tools appropriately.</td>
<td>• Evidence of the use of a variety of communication tools based on resources available (e.g., telephone, e-mail, fax, listserv or Web page)</td>
</tr>
<tr>
<td></td>
<td>• Uses digital tools to communicate with students, parents, and community members to enhance management and learning.</td>
<td>• Evidence of management of information using technology to increase communication, (e.g., Web pages, voice mail, homework hotlines)</td>
</tr>
<tr>
<td>Interacts and collaborates with others using computer-based collaborative tools</td>
<td>• Supports student learning through collaboration with parents, subject matter experts, educators, and others using digital tools</td>
<td>• Evidence of sustained communication with parents, students, and/or colleagues through mailing lists, video conferencing, online staff development, shared network folders, etc.</td>
</tr>
<tr>
<td></td>
<td>• Participates in professional growth activities by using digital communication tools.</td>
<td>• Lesson/activity plans are designed collaboratively using appropriate communication tools as a medium (e.g., e-mail, listserv, shared network folders, mailing lists, video conferences, etc.).</td>
</tr>
<tr>
<td>Collaborates with other teachers, mentors, librarians, resource specialist, and other experts to support technology-enhanced curriculum</td>
<td>• Uses digital communication tools to work with educators and subject matter experts to design classroom activities to support student learning</td>
<td>• Student work that exemplifies evidence of active collaboration with outside experts</td>
</tr>
<tr>
<td></td>
<td>• Seeks out and draws upon the expertise of others to support the learning process and technology-enhanced curriculum.</td>
<td>• Interdisciplinary lessons and cross grade-level projects (see also Planning, Designing, and Implementing Learning Experiences)</td>
</tr>
<tr>
<td>Factors to Consider</td>
<td>Professional Profile</td>
<td>Performance Indicators</td>
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| Continues to site-based planning or local decision making regarding the use of technology and acquisition of technological resources | • Provides leadership by participating in school-wide decision-making and learning activities that support learning through the use of technology  
• Actively contributes to the development or updating of site or district-based technology plans  
• Explores new technologies and recommends innovative educational applications appropriate to the curricular needs of the students and site | • Participation in grade-level or department activities to develop a school site technology plan  
• Pursues continuing education (e.g., educational technology, conference attendance, curriculum integration, online courses workshops)  
• Evidence of active participation in the site or district decision-making process regarding the use of acquisition of technology (e.g., grade-level technology committee, technology planning) |
| Demonstrates competence in evaluating the authenticity, reliability, and bias of data gathered; determines outcomes and evaluates the success or effectiveness of the process used | • Evaluates authenticity, accuracy, reliability, and bias of resources to be used in the planning and designing of instructional activities  
• Identifies the process used to evaluate data and determines the success or effectiveness of that process  
• Applies information literacy competencies in professional practice | • Research on curriculum resources incorporates multiple references from a variety of credible electronic and traditional sources  
• Evidence of self-reflection and evaluation on the outcome and success of the process used through anecdotal records, self-reflections, journals, and lesson plan revisions |
<table>
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<th>Factors to Consider</th>
<th>Professional Profile</th>
<th>Performance Indicators</th>
</tr>
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</table>
| Optimizes lessons based upon technological resources available in a variety of learning locations | • Applies best practices and research findings on the use of technology in managing resources for specific student populations  
• Analyzes the needs of students and organizes appropriate and available technological resources for curricular applications  
• Establishes technology procedures and routines that engage all students in a variety of learning environments | • Classroom activities reflect the availability of technology tools and resources at site, community, and home  
• Lesson activities use appropriate technology resources based upon specific student needs (e.g., drill and practice, simulation, video-based instruction)  
• Lesson activities reflect access to a variety of learning locations (e.g., one computer room, computer lab, multiple workstations in a room, and portable technologies) |
| Designs, adapts, and uses lessons that develop student information literacy and problem-solving skills as tools for lifelong learning | • Implements lessons that engage students in evaluating information, problem solving, and critical thinking to make subject matter meaningful  
• Facilities activities that engage students to become self-directed learners through effective use of technology aligned with curriculum standards  
• Incorporates lessons using appropriate technological and traditional tools for student research, data gathering, analysis, and presentation | • Student research projects incorporate multiple references from a variety of credible electronic and traditional sources  
• Student methods of utilizing valid information are analyzed for success (e.g., rubrics, student reflection, and/or bibliographic cross referencing)  
• Evidence that improvements to future student activities are planned  
• Lesson plans indicate activities to maximize student learning by matching the most appropriate technology resources to instructional and learner needs |
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<th>Factors to Consider</th>
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| Creates or makes use of learning environments inside the classroom, as well as in library media center or computer labs, that promote the effective use of technology aligned with curriculum | • Selects appropriate technology that supports state academic content standards  
• Implements effective classroom management techniques using technology in a variety of educational settings  
• Employs a variety of technology-based instructional strategies to enhance learning (e.g., direct, cooperative, individual, etc.)  
• Supports varying learning styles and modalities by integrating a variety of technological resources in lesson design for all students | • Sample technological-integrated lessons are clearly aligned with state academic content standards  
• Evidence of lessons that provide for equal access to technological resources for all students in a variety of locations  
• Sample technology-integrated lessons use technology appropriately. |
| Uses technology in lessons to increase each student's ability to plan, locate, evaluate, select, and use information to solve problems and draw conclusions | • Engages students in the process of planning, locating, and evaluating information obtained by using technology  
• Designs technology-infused lessons to increase student's critical-thinking skills  
• Facilitates technology-infused experiences that promote autonomy, interaction, and choice  
• Incorporates instructional strategies to develop student skills for assessing validity and reliability of information | • Evidence of lessons that provide engaging activities for students to evaluate information, solve problems, and draw conclusions  
• Student projects demonstrate student's increased ability to plan in order to select and use information  
• Models the use of technology to plan activities for solving problems and drawing conclusions |
<table>
<thead>
<tr>
<th>Factors to Consider</th>
<th>Professional Profile</th>
<th>Performance Indicators</th>
</tr>
</thead>
</table>
| Demonstrates knowledge and understanding of the legal and ethical issues concerned with the use of computer-based technology | • Translates the school’s acceptable-use policy (AUP) into understandable rules and procedures for students  
• Demonstrates and advocates legal and ethical behaviors for students and colleagues regarding the use of technology and information | • Models, teaches, and reinforces intellectual property rights and acceptable-use policies  
• Evidence that students are following the acceptable-use policy  
• Evidence of lessons that include copyright and policy citations  
• Student reports include appropriate bibliographic information |
| Uses computer applications to manipulate and analyze data | • Collects, organizes, and analyzes data using technology for the purpose of managing resources, learning environments, and project design  
• Uses technology to collect and analyze data for school instructional planning | • Evidence of the use of a gradebook spreadsheet or database program to record and report student progress  
• Instruction is modified based on the analysis of student mastery of data by using district-adapted student information system  
• Evidence of the use of assessment tools and strategies to evaluate student activities  
• Customized documents for school planning use technology tools |
### Factors to Consider

<table>
<thead>
<tr>
<th>Uses technology to assess student learning and provide feedback to students and parents</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Devises project assessments that allow students and parents to monitor progress and adapt educational activities appropriately</td>
</tr>
<tr>
<td>- Produces individualized learning reports of students</td>
</tr>
<tr>
<td>- Shares learning reports with students and parents to provide feedback to improve purposeful student engagement in learning</td>
</tr>
<tr>
<td>- Collects, interprets, and reports student performance data using technology</td>
</tr>
</tbody>
</table>

### Professional Profile

<table>
<thead>
<tr>
<th>Frequently monitors and reflects upon the results of using technology in instruction and adapts lessons accordingly</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Analyzes the effects of technology integration on student learning and modifies lessons to better meet curricular goals</td>
</tr>
<tr>
<td>- Uses technology tools to collect and analyze student data to effectively manage instruction and classroom management</td>
</tr>
<tr>
<td>- Analyzes best practices and research findings on the use of technology and designs lessons accordingly</td>
</tr>
</tbody>
</table>

### Performance Indicators

| - Evidence of the use of electronic means to collect student data (e.g., grade-books, web-based testing, computer-aided instruction, etc.) |
| - Presentations are produced for a variety of audiences to illustrate student performance |
| - Evidence of the use of technology to create individual learning reports for parents and students |

(California Department of Education, 2001)
APPENDIX B

EDUCATOR PROJECT USING
MICROSOFT OFFICE XP
Educator Projects
using Microsoft Office XP
By Darcy Coulter

Improve Your Personal Productivity
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DISCLAIMER

The references provided at the end of the handbook are not cited within the handbook as the references were used to enhance the author's knowledge of the subject.
Lesson Plan Project

It is imperative to every teacher's success that you have an organized method for preparing and storing the lesson plans. In this lesson plan, you will master the skills needed to:

- Create file folders on your PC
- Create a lesson plan template

The steps are as follows:

Part 1 – Creating File Folders

1. **Open** MS Word and create the document you need to store.

2. Save the document by clicking on **File** from the menu, and click on **Save**. From the dialogue box, click on the **file folder** button. This button allows you to create a new folder.

3. When the new folder dialogue box appears, type the folder name. In this case, name the folder **Lesson Plans** and click **OK**.

Next, you may want to create folder for each subject or course you will be creating lesson plan for. To do this, you need to open the folder Lesson Plan and repeat step 3 until you have created the desired folders.
Part 2 – Creating a Lesson Plan

1. **Open** MS Word to a blank document.

2. From the **Format** menu, choose **Font**. Change the font type to **Arial**, font style to **bold**, and the font size to 16. Type **Lesson Plan Template**. Change the font settings back to the original settings.

Highlight the title text and click **Align Center** from the format toolbar.

3. Adjust the side, top and bottom margins of your lesson plan, by clicking on **File** menu and selecting **Page Setup**, and then click **Margins** tab. The Page Setup dialogue box below appears to allow you to make the adjustments.

Change all margin settings to 1" for the entire document by either using the up/down arrows or typing directly in the white box.
4. Using the table feature of MS Word, we will create the lesson plan template. From the Table menu, choose Insert, Table.

4. At the Insert Table dialogue box, change the number of columns to three and verify that the rows are two. Use the up/down arrows to change the number, or type directly over the number appearing in the box. Click OK. The grid below will appear on your screen.

In the grid, type Subject, Unit Title, Lesson Title in the first row and Student Grade, Lesson Timeframe and Instructor Name. Be sure to highlight the typed text and click Bold from the Format toolbar to make your titles bold.

Your lesson plan template should look like this.
5. Add eight more rows, one column each to your table which will contain the other areas needed to complete your lesson plan template. Again, you may want to bold your titles. Your lesson plan template should now look like this.

![Lesson Plan Template](image)

As you begin to use your lesson plan template, the cells in the table will adjust to fit the text.
Sample Lesson Plan Template

LESSON PLAN TEMPLATE

<table>
<thead>
<tr>
<th>Subject:</th>
<th>Social Science &amp; Health</th>
<th>Unit Title:</th>
<th>Unit 2</th>
<th>Lesson Title:</th>
<th>Multicultural Cuisine</th>
</tr>
</thead>
</table>

| Grade: | 7th Grade | Lesson Timeframe: | Paced over 2 weeks | Instructor Name: | Brook Sikora |

Objectives: By the end of this lesson, students will be able to:

- Discuss exchanges of plants, animals, and culture among various continents in the 16th century
- Explore a wide variety of healthy foods consumed during this time period on the continents studied.

Teaching Methods/Techniques:
- Demonstration/Illustrated talk
- Directed discovery
- Interactive/Cooperative groups
- Display
- Oral presentations

Introduction: Ask students to list favorite foods, and why they like them. Discuss the origins of these foods. Teacher will have some sample foods for students to taste.

Content: Content will include all the aspects of the unit that you plan on covering.

Summary: This will contain a description of the wrap up activities including reviewing for the test.

Evaluation: Students will complete two quizzes and a unit test.

Assignments: Students will be required to prepare and deliver a presentation to the other students on the food/dish they prepared.

Resources Required: Textbooks, foods to sample, handouts, overheads
Mail Merge Project

As a teacher, you will need to periodically correspond with the parents of your students. Some typically events which would create a need for correspondence are:

- Back to School Night
- Holiday parties
- Field Trips
- Parent – Teacher Conferences
- End of School Year Calendar

In this project, you will master the skills needed to:

- Create a letter/invitation inviting the parents to Back to School Night
- Create a mailing list/database of the parents
- Merge the two documents/files so that individualized letters can be created for each parent.

The steps are as follows:

Part 1 – Creating the Letter/Invitation

1. Open MS Word to a blank document.
2. Click on the Center Alignment icon in the format toolbar at the top of the screen.
3. Click **Format** in the menu bar, and then click on **Font** to develop your letterhead.

4. Scroll through the fonts and click on a decorative font you like. In the example, the "Tahoma" font is used.

5. Click **Bold** and **Font** point size of 20.

6. Click **OK**. Type the name of your institution. In the example, we are typing "The Children's Center."

7. Click **Format** menu, then **Font** and select a different decorative font. In the example, the "News Gothic" is used. Also, if you are using a color printer and want to add color to your font, you will see in the **Font** dialogue box, you have this option. Black is the default color or "automatic."

8. Type your school address, hit **enter** and type the school city, state and zip. Hit **enter**.

9. Click on "I" for italics icon on the **Format** toolbar and type your telephone number. Click on "I" again to turn off this feature.
10. Hit **enter** and click the **Align Left** icon in the **Format** toolbar at the top of the screen.

11. Hit **enter** three more times to give three lines of space between your school's address information and the date.

12. Go to the **Font** box in the **Format** toolbar and click on the **List Arrow**. Select the "Arial" font from the list, or another of your choosing.

   In the box, directly to the right of the **Font** box, select the list arrow and a Font point size of "12."

13. Click **Insert** on the Menu Bar, and then click on **Date and Time**.

   Click on the **Date Format** "Month, Day and Year (i.e. January 20, 2003). I also have checked the box "Update automatically" as this will automatically update the date in future years.
14. Hit **enter** four times to put four lines between the date and the parents address information.

15. Save and name your document as “BacktoSchool Form Ltr.” You will want to do this often so you don’t loose your work. To save the letter click File, **Save**. Type the name of the letter into the dialogue box and click on **Save**.

16. Click **enter** four times to create four lines. One line will be used for the Address Block of information during the merge. Also, the greeting line will be created during the merge, so we will need an additional line for this information. Typically, there are two lines between the address information and the greeting line and one line between the greeting line and the first line of the letter.

17. Click **enter** two more lines. Begin typing the body of the letter. Below, you will find the body of the example letter including the salutation.

   I am writing today to let you know that “Back to School” night will be held on Wednesday, September 15, 2004. We will have two sessions in order to accommodate parents with more than one student attending the school. The first session begins at 7:00 p.m. and the second session begins at 7:45 p.m.

   During our time together, I will review the learning objectives for the year, and plan to share my educational philosophy. Since I know many of you will want to get involved by assisting in the classroom or with the parent support group, I will have information on both these areas as well.

   In closing, I am really looking forward to working with this year, and I hope you will be able to join us to learn more about the educational journey we just embarked upon.

   Best regards,

   Your Name

---

You will notice that in the closing paragraph, between the words “with” and “this” a space has intentionally been inserted as we will be inserting the students name in this spot during the mail merge.
18. To adjust the side, top and bottom margins of your document, click on File menu and choose Page Setup, and then click Margins tab. The Page Setup dialogue box below appears to allow you to make the adjustments.

Change all margin settings to 1" for the entire document by either using the up/down arrows or typing directly in the white box.
Part 2 – Create Mail List/Database with Excel

1. **Open** MS Excel to a blank spreadsheet.

2. In cell A1, type “Last Name.” In cell B1, type “First Name.” Continue as follows:
   - A1 = Last Name
   - B1 = First Name
   - C1 = Students Name
   - D1 = Address
   - E1 = City
   - F1 = State
   - G1 = Zip
   - H1 = Phone Number

Here is a sample of how your spreadsheet should appear.

3. To make the column headings bold, **highlight** the entire row by placing your mouse directly over the number 1 and press the left mouse button. This highlights the first row. Next, click the **Bold** icon and the **Align Center** icon on the **Format** toolbar.
4. Move the cursor into cell B1 and begin keying the information on your first student. Continue until you have 5 students in your Excel database. Below, you will see the example database with five student records.

![Excel Database Example](image)

You can quickly see that not all the data in each cell is visible. To correct this, place your cursor on the line between the "B" and "C." You should see a double arrow. Click the left mouse button twice quickly and Excel will automatically adjust the column width to the data. Continue this process for any other columns needing adjustment. Below, is a picture of the database with the adjustments.

5. Save and name your Excel database as “ClassRoster 2002-03.” You will want to do this often so you don’t lose your work. To save the database click **File, Save**. Type the name of the database into the dialogue box and click on **Save**.

6. Close the file by selecting **File** from the **Menu** toolbar and click on **Close**. Next, exit Excel by clicking **File** from the **Menu** toolbar and click **Exit**. A shortcut method is to click the “X” in the upper right hand side of your screen.
Part 3 – Merge Letter with Excel Database

1. Open MS Word and the letter you created in Part 1.
2. Click Tools, Letters and Mailings, and Mail Merge.

2. You will now notice that the Task Pane automatically came up on the right hand side of your screen.
We will now cover the six steps to performing the mail merge. Make sure the letter you created in Part 1 is open when you complete step 1.

2. MS Word has determined that we are working on a Letter created in Part 1; hence, the bubble beside the word ‘Letters’ is highlighted.

3. Click on **Next: Starting document** to continue.

4. Next, we need to select the starting document. The default is to **Use the current document**. This is the option we will select.

5. Next, we will need to select our recipients. We will use the default **Use an existing list** since we created our list in Excel.

---

We now need to click on **Browse** to locate our database file.
6. Browse your system until you locate your database file. Here is a picture of the database created in Part 2.

7. On the database we created, we saved our data on sheet 1. Given this, select OK and you will see your data pop up.

8. You may also want to follow the instructions for sorting the data in alphabetical order. Next, select OK to proceed.
9. Click **Next** in the **Task Pane** area to proceed to the next step. Now, we will need to add recipient information to our letter.

First, move your cursor to the location where you want the address block to appear.

Scroll through the list to determine the format you would like the parent’s names to appear.

You will also want to de-select the **Insert company name** as that is not necessary for this application.

Next, select **OK**. You will notice that the words «AddressBlock» now appear where the address information will be placed during the merge.

10. Next, we will need to format the **Greeting Line**. To do this, move your cursor to the space just in front of the colon. Click on **Greeting Line** in the **Task Pane**.

Choose the format that best suits your needs.

11. We have one more item to include in our letter and that is the student’s name. To do this, we place our **cursor** in the last paragraph between the words with and this. Next, we click on **More items**.

The following list will pop up. You need to select **Student** and click **Insert**. If you look at your letter, you will now find this “«Student»” in between with and this.
12. The next step will allow us to preview our letter. Click **Next: preview letter** in the **Task Pane**.

Use the double arrow keys in the **Preview your letters** section to scroll through the letters.

You are now ready to take the next step, click **Next: complete the merge**.

13. You are now able to **Print** your letters by selecting print in the **Task Pane** or you an individually edit each letter by selecting **Edit** also in the **Task Pane**.

14. Once your letters are printed, they are ready for distribution to your students. Your project is complete!
April 28, 2003

Harry & Marcy Rosen
4285 Denver St
Riverside, CA 92504

Dear Harry & Marcy:

I am writing today to let you know that “Back to School” night will be held on Wednesday, September 15, 2004. We will have two sessions in order to accommodate parents with more than one student attending the school. The first session begins at 7:00 p.m. and the second session begins at 7:45 p.m.

During our time together, I will review the learning objectives for the year, and plan to share my educational philosophy. Since I know many of you will want to get involved by assisting in the classroom or with the parent support group, I will have information on both these areas as well.

In closing, I am really looking forward to working with Brook this year, and I hope you will be able to join us to learn more about the educational journey we just embarked upon.

Best regards,

Your Name
PowerPoint Project

Microsoft PowerPoint is a presentation graphics application program which is frequently used as an alternative to an overhead projector as PowerPoint displays information directly on your screen for the audience to view.

The objective of this next assignment is to use PowerPoint to create a slideshow presentation. For our example, the slideshow presentation covers how to create your presentation. During this lesson, you will learn how to add text, graphics, animation and sound. I am sure you have already begun to think of applications for this project. Whether its creating a presentation to run during open house or to add some pizzazz to your next lesson, I am sure you will find many occasions to use PowerPoint!
Part 1 – Creating a PowerPoint Presentation Using the Wizard

The steps are as follows:

1. **Open** MS PowerPoint.

   This screen should appear.

   For our first presentation, we will be using the AutoContent Wizard. Like all other wizards used in the Microsoft products, the wizard will save us time.

2. From the menu bar, click **File, New**.

   As you can see, the task pane for New Presentations popped up on the right-hand side of your screen.

   Under ‘New’ you will find the option for ‘AutoContent Wizard’.

   Click on **AutoContent Wizard** and click **OK**.
3. The Office Assistant asks you if you need help with this feature. Click **No**.

Here we see the path the AutoContent Wizard will take us through to create your presentation.

It begins with ‘Start.’

Click **Next** to move to the next step.

4. Select the type of presentation by choosing **General**. Then, select **Training** in the white scroll box.

As you can see, there are many other choices in the AutoContent Wizard to choose from.

Click **Next** as we are not finished just yet.

5. The next step is asking us to determine what type of output will use. Since we are planning on creating this presentation for our classroom, we will accept the default with is ‘**On-screen presentation**.’

Click **Next**
6. At the **Presentation options** dialog box, enter the presentation title, "PowerPoint Project." Click under "Presentation title" and start typing, then tab to the text box and put your name in the footer. For this presentation, uncheck **Date last updated** and **Slide number**.

Click **Next**, and then click **Finish**.

7. Your screen should have two panes: the outline pane, and the slide pane. You can see that presently, the 'Outline Pane' is displayed. This allows us to view the proposed outline for our presentation.

The Slide Pane allows the creator to view each individual slide.
8. I would suggest that you save your presentation frequently as you don't want to lose your hard work. To save your project, select **File** from the menu bar, and **Save As**.

When the dialog box appears, the **File Name** should be "PowerPoint Project." You may choose to keep this title, or name it something unique.

You will also note that under **Save as type**, **Presentation** is the default.

Click **Save**.

Whenever you want to save to a different location, from the File menu, choose **Save As**. You are also able to save the same information under a new file name using this method.

9. With your presentation in **Outline** view, you will want to modify the text that was automatically placed in the presentation when it was created. On the first slide, make sure your name is below the title 'PowerPoint Project.' Now, type the name of your school, for example "The Children's Center," and press **enter**. Type the city and state. Your outline should have the following information on the first slide.

Please note that you can either type directly on the slide or in the outline itself. Try both ways!
10. To replace text, click in front of the word to be replaced; then click-and-drag the mouse to the end of the text. For example, on the next slide, we will replace the word “Introduction" with the words “Presentation Plan" by following this procedure.

With the word “Introduction" highlighted, we will replace this word with “Presentation Plan.”

11. Continue replacing the remainder of the information on with slide so that your slide looks like the one below.

The remaining bullets describe the essential components of preparing a well throughout presentation.

12. We want to delete the next slide. To do this, you need to click on the miniature picture of the slide right next to the number. For our presentation, select the slide titled “Agenda.”

Notice that when you do this, the entire slide is highlighted. Press the delete key. This removes the slide.

If you make a mistake and decide that you no longer want to delete the slide, do the following: a) from the edit menu, choose Undo Clear (Ctrl+Z), or b) use the Undo button to undo the last action.
13. To add a slide, you can press the New Slide button found on your toolbar or using the menu bar, go to Insert, New Slide.

You now see that when you request a new slide, PowerPoint automatically selects a slide layout for you. But it also brings up the different types of slide layouts for you on the right hand slide of the screen so you can choose the appropriate layout for your slide.

Here are some Presentation Guidelines.

To delete a title or graphic on a slide, move the mouse cursor on top of the graphic until it becomes a four-headed arrow and click on it. Next, press the delete key.

Part 2 – Inserting WordArt

1. To insert WordArt in your presentation, click on Insert WordArt button found on the Drawing toolbar at the bottom of your screen, or use the menu path Insert, Picture, WordArt.
Let's go back to slide 1 and change the title of our presentation to WordArt. First, we will need to delete the title that is there by clicking on the title, and then clicking on the outer box until we see the four-headed arrows. Next, click delete.

The original title should have disappeared.

At the dialog box, select the text that is in the third column, second row, and click OK.

At the Edit WordArt Text dialog box, the text is highlighted. Type "Creating a PowerPoint Presentation."

Be sure to put returns after 'a' and 'PowerPoint.' You will also need to adjust the remaining text on the slide so that everything can be seen.

Here is an example of the finished slide.

Under the Word "Size, Click on 36 and choose 44, then click OK. The WordArt is now in the middle of the slide along with the WordArt Toolbar. Move your mouse cursor on top of the WordArt title until it turns into a four-headed arrow. Next, click-and-drag the title above your name. Release your mouse.

Your title slide should look something like this.
Creating a PowerPoint Presentation

Darcy Coulter
The Children's Center
Riverside, California

If you want to change the shape of your WordArt title, click on the WordArt Shape button on the toolbar.

For my title, I selected “Can Up.” Sometimes you just need to try out some of the styles to see which one you like best.

To edit your WordArt text, double-click on any part of the WordArt text, and the Edit WordArt Text dialog box will appear.

Part 3 – Insert Clip Art

1. To insert Clip Art, click the Insert Clip Art button on the Draw toolbar. You can also access Clip Art by using the menu options Insert, Picture, Clip Art.

You will notice that when you clicked on the Insert Clip Art button, a new task pane appeared on the right hand side of your screen. Fill in the “Search For” blank with the name of the clip art object you want to search for. In this case, type in “Presentations.”
As you can see, different clip art pictures will appear. Use the scroll button on the right hand side of the pictures to scroll through the remaining pictures.

For this presentation, we will select the picture highlighted.

Once you are ready to insert the picture, click on the **down-arrow** button. The following drop down menu appears.

To insert the picture, select **Insert**. This inserts the picture on the slide.

You may need to relocate and resize your picture. To relocate/move the picture, follow the same pictures as you did with the WordArt, **Click-and-drag** on the picture.

To resize your clip art, select you image so that the size handles surround it. Position the mouse pointer over a corner handle until the pointer changes to a double-headed diagonal arrow.

Click on the corner size handle and drag the mouse toward the picture to make the image smaller or away from the picture to make it larger. The middle size handles distort the object.
Here is the finished title slide!

If you make a mistake, go to the Edit menu and choose **Undo**
**Resize Object** (Ctrl+Z).

**Part 4 – Changing the Appearance of Text**

1. To change the appearance of text, click in the middle of text, and then click anywhere on the crosshair border to select the entire text box.

Now you can use either the **Format** toolbar or the **Format** menu to complete your formatting changes.

If you use the **Format** following dialog box will Here, you can make to fond, font style, size, among others. Try using **Shadow** button to create effect to you text.

**Part 5 – Printing the Presentation**

1. To print your presentation, click **File**, choose **Print**. At the **Print** dialog box, select **current slide, one copy**. From the pull-down menu opposite **Print What**: select **Slides** and click **OK**.

You are also able to print an outline of your presentation, handouts, 2, 3, 4 or 6 to a page and your presentation with notes pages.

Also, at the **Color/grayscale** box, you can select to have your slides print out in color, purely black and white, or grayscale. I recommend Grayscale.
Part 6 – Adding Animation and Sound

1. We will now animate the title of the presentation so that it swivels to an applause sound. To do this, we must be in Slide View or Normal View.

Go to slide 1 and select the title “Creating a PowerPoint Presentation” so that it has size handles.

From the Slide Show menu, select Custom Animation.

When you completed this step,

you will find a new task pane has appeared on the right hand side of the screen.
The new animation features of XP allow you to automate something on 1) entrance, 2) emphasis something while on the screen and 3) as the item exits. You can also create custom motion paths for each item.

2. At the Custom Animation dialog box located on the right hand side of the screen, make the following selection from the Add Effects tab:

- Click anywhere in the area of the WordArt title
- Click the down-arrow on the Add Effect
- Click Entrance, and More Effects
- The Add Entrance Effect dialog box appears which have basic, subtle, moderate and exciting effect categories to choose from.
- Swivel, the effect we have selected is in the exciting category.
- Click on Swivel and OK.

3. To add a sound to an animation, the text or object must already have an animation applied to it before you can complete this process. On the slide, select the text or object you want to add an additional effect to, in this case, the title.

On the Slide Show menu, click Custom Animation. In the Custom Animation task pane, click the arrow on the selected item in the Custom Animation list, and then click Effect Options.

On the Effect tab, under Enhancements, click the arrow in the Sound list, and do one of the following:

- If you want to add a sound from the list, click an option.
- If you want to add a sound from a file, click Other sound, and then navigate to the file.
For our project, go to the down arrow on **sound** and select **Applause**, and click **OK**.

You are also able to control the timing of the animation effects as seen on this dialog box.

Follow these same procedures for animating text, Clip Art (graphics) and WordArt throughout your presentation. My only caution is to seriously consider how much animation you add. Just because you can add animation, too much animation can detract from the presentation.

**Part 7 – Creating an Action Button**

1. In most instances, you will want to advance your slide manually. You can advance a slide by using the keyboard’s Page Down key and Page Up key, or by clicking on your slide.

Adding an Action button lets you jump to any slide, go backward or forward, or stop a presentation.

From the **Slide Show** menu, scroll to **Action** Buttons, and then select **Action Button**: **Forward or Next**.
2. The mouse pointer is now a cross hair. In the lower right-hand corner, click-and-drag to draw a small button. Release the mouse.

The Action Setting dialog box appears allowing you to Hyperlink anywhere in your presentation, to any file on the computer, or to the Internet. This can be a handy tool in class!

For this project, Hyperlink to: Next Slide, from the drop-down menu

Place check in box to left of Play sound:

Play sound: Arrow from drop-down menu and click OK. If the action button needs to be relocated, simply click on the action button until you see the four-headed arrow. Once the four-headed arrow appears, you can grab the button with the left mouse button and move the button, just like we did with the clip art and word art.

Part 8 – Changing the Color Scheme and Slide Transitions

1. From the Format menu, choose Background. In the dialog box, select the down arrow. Here, you can see more colors and various fill effects.

Let's select the yellow color (the 6th across) and click Apply. This changes the color to that one slide. If we selected Apply to All, it would change the slide color of all the slides in the presentation.
2. Transitions are special effects that transport the user from one slide to the next. Let's add a transition to slide two.

From the **View** menu, choose **Slide Sorter**, or click on the **Slide Sorter** button on the bottom scroll bar.

3. The **Slide Sorter** dialog box appears.
Click on the slide you want to add a transition to, in this case, slide one. From the Slide Show menu, choose Slide Transition. You can also select the Transitions icon from the format toolbar.

Select the following from the Slide Transition task pane.

Effect: Checkerboard Across
Speed: Slow
Advance: On mouse click
Sound: Push

You can Apply to All Slides or the slide you have highlighted, in this case, slide 2.

Part 9 – Ending Features

1. To prevent the PowerPoint program from appearing at the end of a show, you can end the presentation with a black slide.

   From the Tools menu, select Options. Click the View tab. Under Slide Show, check End with black slide and click OK.

2. If you want the PowerPoint program to continue looping, you can set that option by completing the following:

   From the Slide Show menu, choose Set Up Show.

   Under Show Options, check the box Loop continuously until ‘Esc’
3. To view the slideshow, select from the **Slide Show** menu, **View Show**. Click on each slide to advance to the next one. Click on the **black slide** to exit.

4. To save and quite the slideshow, select from the **File** menu, choose **Save**. To leave PowerPoint, from the **File** menu, select **Exit**.
Certificate Project

Teachers enjoy rewarding their students. Many times, this gives a Certificate of Ward to show the student how proud there are of their accomplishment. In this next assignment, you will learn to:

- Enter text on a MS Word document
- Insert WordArt and Clip Art
- Insert a Page Border

The steps are as follows:

Part 1 – Inserting WordArt

1. Open MS Word to a new document.

2. From the Insert menu, Picture and WordArt.

3. At the WordArt Gallery select the WordArt that is 3 across and then click OK.
4. Choose the find Monotype Corsiva from the Edit WordArt dialog box. Type “Student of the Week,” and select the font size of 48, and click OK.

5. Center the WordArt on the page by going to Format menu, select Paragraph and under “General” take the option to Align Center.

6. Add a few additional lines by hitting the Enter key a few times.

**Part 2 – Inserting Clip Art**

1. From the Insert menu, drag to Picture, and then choose Clip Art.

2. From the Microsoft Clip Art Gallery, click the Pictures Tab.

3. The Insert Clip Art dialog box appears. In the Search text box, type in awards and click on Search.

4. Scroll through the list, using the scroll bar on the right hand side of your screen until you find a clip art you want to insert.
5. When you find the picture, click on the down-arrow, and then click Insert. This inserts your picture on your certificate.

6. To move the graphic, click on the award graphic and from the Format menu, choose Picture.

7. When the Format Picture dialog box appears, select the Layout tab. If In-line has been selected, select Tight and click OK.

   This allows text to appear all around the graphic and tends to provide the most versatility.

8. To resize your picture, click on the award to place your size handles (small squares) in each corner.

   Click and drag up toward the award to decrease the size (drag away from it to increase the size).

   Move the cursor on top of the picture until it turns into a four-headed arrow, and then click-and drag to position the picture.

   Place the picture inside the margins, otherwise, it will not print.
9. Using the underline key, create a line for the students name in the middle of the page, directly under the graphic. Continue typing the remaining elements of the award. A sample is provided.

**Part 3 – Inserting a Page Border**

1. The last step to our certificate will be to create a page border.

   From the Format menu, choose Borders and Shading.

   The Borders and Shading dialog box appears. Select Box and scroll through the Art at the bottom of the dialog box, until you find a page border suitable for your certificate. There are many to choose from!

   Once you find one, click on the **border** and click **OK**. Your page border now appears on your certificate.
2. To save your certificate, from the File menu, choose Save As. When the Save As dialog box appears, type a name for your document, such as, “certificate.” Now find a location in which to save your file. Click Save.

3. To print your certificate, from the File menu, choose Print. At the Print dialog box, choose OK.

4. If you wish to exit Microsoft Word, from the File menu, choose Exit.
Grade Book Project

With Excel, you are able to calculate student averages for a series of tests and record their final grades. Excel also allows you to save time so that you can provide your students with feedback on how they performed on the test. In the next assignment, you will learn to:

- Create and format an Excel Workbook
- Sort information on an Excel Worksheet
- Use the formula function

With this project, you will complete the spreadsheet below.

<table>
<thead>
<tr>
<th>Name</th>
<th>Test 1</th>
<th>Test 2</th>
<th>Test 3</th>
<th>Student Average</th>
<th>Final Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Armstrong, Marcy</td>
<td>77</td>
<td>85</td>
<td>87</td>
<td>83</td>
<td>B</td>
</tr>
<tr>
<td>Cooney, Ned</td>
<td>94</td>
<td>87</td>
<td>84</td>
<td>88</td>
<td>B</td>
</tr>
<tr>
<td>Delaney, Joe</td>
<td>90</td>
<td>92</td>
<td>91</td>
<td></td>
<td>A</td>
</tr>
<tr>
<td>Emerson, Jane</td>
<td>76</td>
<td>66</td>
<td>75</td>
<td>72</td>
<td>C</td>
</tr>
<tr>
<td>Frazer, Phyllis</td>
<td>94</td>
<td>93</td>
<td>96</td>
<td>94</td>
<td>A</td>
</tr>
<tr>
<td>Goldshine, Gus</td>
<td>82</td>
<td>83</td>
<td>82</td>
<td>82</td>
<td>B</td>
</tr>
<tr>
<td>Holmes, Joyce</td>
<td>76</td>
<td>67</td>
<td>73</td>
<td>69</td>
<td>D</td>
</tr>
<tr>
<td>Rosen, Harry</td>
<td>86</td>
<td>77</td>
<td>95</td>
<td>86</td>
<td>B</td>
</tr>
<tr>
<td>Sikora, Brook</td>
<td>97</td>
<td>97</td>
<td>87</td>
<td>90</td>
<td>A</td>
</tr>
<tr>
<td><strong>Class Average</strong></td>
<td><strong>85</strong></td>
<td><strong>82</strong></td>
<td><strong>86</strong></td>
<td><strong>84</strong></td>
<td></td>
</tr>
</tbody>
</table>
The steps are as follows:

Part 1 – Creating a Workbook

1. Double-click on Excel to Open Excel. It will automatically open to Book1.

2. From the File menu, choose Save.

3. At the Save dialog box, name your workbook “science scores,” and click Save.

4. To begin entering information, click in cell A1 and type the title for your worksheet, “Science 100,” then press Enter.

5. When you press enter, it places the cursor in cell A2. Type “Name,” and then press the tab key.


7. Follow the same procedure and type “Student Average,” and “Final Grade.”
8. Click in cell A3 and begin filling in the student names. Once you type in the student name, press Enter to advance to the next cell and type the next name.

9. Click in cell A13 and type “Class Average.”

Part 2 – Sorting Data in a Workbook

1. To sort the names in alphabetical order, click and drag to select the names you want to alphabetize. Click the Sort Ascending button on the Standard toolbar.

You can also alphabetize by going to the Data menu, and choosing Sort.

2. To resize the columns to fit the data, place the cursor in the very corner of the spreadsheet, beside the “A” and on top of the “1.” When the cursor changes to the “+” (plus) symbol, click the left mouse key which will turn the entire spreadsheet blue.
Next, go to Format, Columns, and select the AutoFit Selection. This will automatically resize the columns to fit the largest data element.

3. Click in cell B3, and type "77," and then tab. Next, type "85" and tab, type "87," and then press Enter. Use the four arrow keys to navigate around the spreadsheet. Continue keying in the test scores for the remaining students.

4. Click the Save button on the Standard toolbar to save this worksheet.

Part 3 – Calculating Formula’s

1. To calculate the student average, click in cell E3. This is where the average score for Marcy Armstrong will appear. Type "=" in the cell as this lets Excel know that you are typing a formula.
2. From the **Formula Bar**, use the **Functions** drop-down menu to choose **Average**. You can also use the menu path **Insert-Function**.

![Formula Bar and Function Arguments](image)

3. At the **Average** dialog box, cells B3 through D3 are chosen. If Excel had chosen the wrong numbers, you would simply need to type the correct cell references in the cell. Click OK once you verified that the numbers are correct.

You should see 83 in cell E3.

You will be using the same formula to calculate the average for the remaining students. To use the shortcut method, select cell E3 and drag the fill handle down, or double-click on the fill handle.

4. To calculate the class average, click in cell B13 and type an “=” sign. From the **Functions** drop-down menu on the **Formula Bar**, choose **Average** again. When the **Function Arguments** drop-down menu appears, verify that the cells referenced are correct.

Select cell B13 and drag the fill handle across to calculate the remaining averages.
5. Since some of your numbers are have too many decimals, select the numbers in the table you want to change. Locate the Decrease Decimal Place button on the Formatting toolbar to round to the nearest whole number.

6. Perhaps one of the hardest aspects of the grade book is determining the correct formula to figure the letter grade. Click in cell F3 and type the “=” sign.

Next, type the following formula as is:

\[
\text{IF}(\text{AVERAGE}(B3:D3)>89, "A", \text{IF}(\text{AVERAGE}(B3:D3)>79, "B", \text{IF}(\text{AVERAGE}(B3:D3)>69, "C", \text{IF}(\text{AVERAGE}(B3:D3)>59, "D", "F"))))
\]

Press the Enter key; a value of B if recorded in cell F3.

Move the mouse to the lower right corner of cell F3. When the cursor turns into a small black plus sign, pull down the fill handle through cell F11.

Excel has now calculated the letter grade for each student.
Part 4 – Formatting a Spreadsheet

1. To format the title, select cells A1 through F1, and then click on the **Merge and Center** button on the **Formatting** toolbar.

2. You can quickly format this table by using Excel's Build-in formats.

   Click-and-drag to select the cells in your table.

3. From the Format menu, choose **AutoFormat**.

   In the AutoFormat dialog box, choose the format you want, for example **Classic 2**, and click **OK**.

   You can then make additional changes to this formatting such as font size, centering, and shading. For this example, we added centering, increased the font size, and adjusted the widths of columns.

4. To print your spreadsheet, choose **Print** from the **File** menu. At the **Print** dialog box, choose **OK**.
References


REFERENCES


Jones, C. A. (2001). When teachers' computer literacy doesn't go far enough. The Education Digest, 67(2) 57-61.


