

An Analysis of the Interaction between Continuous Personal Growth  
and  
Technological Change in the Work Place

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## **Abstract**

The intent of this study was to determine if financial aid employees use computers to perform daily job responsibilities and if the users seek to improve their computer skills. The measurement tool was personal interviews with five financial aid staff members at a suburban, private liberal arts college. All workers interviewed reported using computers extensively every day. Males were more likely to practice using applications and to learn new programs in the pursuit of work and leisure activities. Numerous studies were done to determine computer use when organizations began implementing technology. Additional research is needed to determine the validity and advantages of continued technological training for users.

# **CHAPTER I**

## **INTRODUCTION**

### **Overview**

Due to the high turnover rate of directors and employees in the financial aid department at the study site, there is no standard for computer use or training. The current director possesses more technological knowledge and takes better advantage of resources and training opportunities than her two older predecessors. Because each employee has different responsibilities for processing student aid, computer skills vary greatly. Rather than functioning as a team, each worker has the necessary knowledge and skills to perform his/her daily tasks. The problem with extensive computer use and little continued training is that knowledge quickly becomes stagnant as applications are frequently updated. Without a policy or person to oversee use, work is duplicated, information is stored according to individual preferences, and files are never purged creating the need for more memory in order to store outdated, useless data.

### **Statement of Problem**

As an Assistant Financial Aid Director, the researcher attempted to determine daily computer use and the extent to which technological training was pursued by other members of the financial aid department. The purpose of the study was to investigate, through personal interviews, computer use in the financial aid department and whether or not training opportunities were taken advantage of by workers to improve efficiency and accuracy through the use of technology.

### **Hypothesis**

In a descriptive study of this type, a hypothesis is uncommon and such is the case here. Rather it is important to note that the researcher intended to determine if financial aid workers

used computers and participated in advanced training for processing financial aid at one suburban, private liberal arts college. Just as computer use advanced knowledge, disseminated information, and improved procedures for processing financial aid, training can keep users informed about updates, improve accuracy and further increase efficiency. The importance for policies and standards is emphasized through daily practices. Training opportunities are the independent variable and computer use is the dependent variable. If workers were not confined by job responsibilities that do not overlap, there would be greater interaction and competition between staff members and training would be a motivator for advancement.

### **Operational Definitions**

Financial aid is any grant, scholarship, loan or paid employment offered to help a student meet his/her college expenses. Such aid is usually provided by various sources such as federal and state agencies, higher education institutions, high schools, foundations and organizations. Financial aid processing includes but is not limited to reviewing applications, approving documents and information submitted, packaging aid, and processing grants and loans.

## **CHAPTER II**

### **REVIEW OF THE LITERATURE**

This literature review examines the importance of continuous growth and change at individual and organizational levels due to swift technological changes in the workplace. Section one describes the implementation and widespread use of computers in the workplace. Section two discusses the emphasis on innovation and creativity for managing technological changes and application updates. Section three explores possibilities for user motivation and resource options.

#### **Computers in the Workplace**

An August 2005 report of the Bureau of Labor Statistics of the U.S. Department of Labor reported that as of October 2003, 77 million persons used a computer at work. These workers accounted for 55.5% of total employment. 75.2% of the 77 million persons reported accessing the internet or using e-mail while on the job. The following percentages account for the percentage of workers using the computer for other commonly related tasks: 67.6% word processing; 64.2% working with spreadsheets or data bases; 54.8% using calendar or scheduling options (“Internet Use”, 2005).

The widespread use of computers in the workplace accelerates change by increasing jobs in high-tech, service-oriented fields (Handel, 2003). Research has demonstrated a positive association between web use and increased earnings because internet use requires training and experience (DiMaggio & Bonikowski, 2008). In 2007, the average worker who was using a computer in the workplace earned a 3.6% higher wage than a worker who did not use a computer. Highly educated workers, users with significant prior computer experience, and employees using applications requiring high cognitive skills earned the highest returns (Zoghi &

Pabilonia, 2007). Analysts increasingly refer to the inequality between individuals with and without access to the Internet as the “digital divide” (DiMaggio & Bonikowski, 2008). Digital inequality is reflected in the extent and types of computer use. The skills required for electronic communication include using a keyboard and the ability to think and type quickly (Glendinning, 2006).

In the early stages of computer implementation in the workplace, individuals make “acceptance” decisions (Venkatesh & Morris, 2000). Locus of control and an individual’s beliefs about computers may be significant predictors of the user’s attitude towards computers and computer experience (Potosky & Bobko, 2001). Research regarding IT usage concluded that prior experience influenced behavior. Experienced users relied on existing knowledge to form behavioral intentions. Inexperienced users relied on perceived usefulness of the application to form behavioral intentions (Taylor & Todd, 1995). Furthermore, a study regarding the role of gender in technology acceptance and usage found that men were more strongly influenced than women by perceived usefulness of the application. Women were more strongly influenced than men by perceived ease of use of the application (Venkatesh & Morris, 2000). Communication with colleagues, friends, family and the media can be influential regarding a user’s perceptions of new technologies and subsequent acceptance behavior. Workers who perceive an innovation to be useful for job performance are more likely to develop a positive attitude toward implementing the new use (Bhattacharjee & Sanford, 2006).

### **Technological Changes**

Open-ended change processes facilitate decision-making and an organization’s quick response to frequent technological updates (Bikson, 1994). Managers are charged with the task of creating procedures to foster a work environment that facilitates innovation and creativity to

keep up with rapid developments and changes to computer applications (Ahuja & Thatcher, 2005). Innovation is defined as the successful implementation of creative ideas by an organization (Miron, Erez & Naveh, 2004). More specifically, technological innovation is social change that affects the behaviors of individuals and groups in an organization (Nelson, 1990). Core organizational processes that stimulate users' IT innovation and creativity enhance further technological understanding, knowledge, and application skills (Ahuja & Thatcher, 2005).

User adjustment to technological change is supported by an organizational culture that encourages innovation and creativity (Nelson, 1990). Organizational culture consists of a set of beliefs and values which influence the behaviors of members. The organizational culture's strength is determined by the homogeneity of the members' beliefs and values. The values of innovation, quality performance, risk-taking and perfectionism are frequently used in studies as measures of organizational culture. Characteristics such as standardization, reliability, conformity to rules and procedures and attention to detail are indicative of an organizational culture focusing on implementation. Characteristics such as high autonomy, risk-taking, tolerance of mistakes and low bureaucracy are indicative of an organizational culture focusing on innovation (Miron, et al., 2004). The frequency of computer application updates emphasizes the need for users to understand and maximize available computer systems. An analysis of the relationship between worker characteristics, including attitudes and computer experience, and organizational culture may assist organizations in quickly and effectively adapting to computer technology changes (Potosky & Bobko, 2001).

Past research emphasized stress and job satisfaction as indicators of individual adjustment. More recent research suggests including organizational commitment, job involvement and performance in the range of individual adjustment factors (Nelson, 1990).

Efficiency is a critical factor for the success of an organization. Efficiency is often assessed using criteria of keeping work on schedule and within budget. Conscientiousness is the best predictor of efficiency. The personal characteristics of a conscientious worker include competence, self-discipline, being goal-oriented, and a will to achieve (Miron, et al., 2004). The job characteristics theory specifies that organizations can foster positive work attitudes and increase work quality by improving five areas of jobs: variety, identity, significance, autonomy and feedback. The variety and significance dimensions create challenges with the extensive use of computers in the workplace. Variety is defined as the degree to which a job requires the use of a number of different skills and talents. Significance is defined as the degree to which the job has a substantial impact on the lives of others (Piccolo & Colquitt, 2006).

The concept of motivation refers to internal and external factors that impel and act as inducements to action respectively (Locke & Latham, 2004). Choice, effort and persistence are the three aspects of action affected by motivation. Motivation can affect a person's acquisition of skills and how and to what extent he/she utilizes his/her skills. The psychological cognitions of meaningfulness, competence, choice and impact enhance motivation (Carless, 2004). Self-efficacy, the core concept defined in social cognitive theory, has motivational effects that significantly impact task performance (Locke & Latham, 2004). Computer self-efficacy is defined as one's judgment about one's ability to use a computer for a specific task. Workers have needs, adhere to values and motives, set goals, and develop self-efficacy. The Kirton Adaptor-Invention (KAI theory), suggests that individuals can be placed on a continuum that ranges from Adaptation style to Innovation style (Miron, et al., 2004). The personal characteristics of adaptors include precautious, reliable, efficient, methodological, disciplined, and conforming. Adaptors recommend problem resolutions that increase efficiency

and maintain stability. This type of worker is able to maintain accuracy in detailed work over a prolonged period of time. Innovators favor breakthroughs over improvements. This type of worker is original but gives the impression of being undisciplined, impractical, and unstable. Personal initiative is defined as a type of behavior, an individual's self-starting approach to work or going beyond what is required for a specific task. Outcomes resulting from performance lead to emotional appraisals such as employee involvement and job satisfaction and may generate subsequent actions (Locke, 2004). The focus of a motivational approach is on the worker's perception of his/her power to cope with circumstances, situations, and people encountered on the job. This method advocates that leaders maintain open communication with staff, assist with goal-setting and provide encouragement, reflection and positive feedback to stimulate involvement and commitment (Carless, 2004).

Knowledge-based economies demand ongoing innovation and skill development in the labor force (Dall'Alba & Sandberg, 2006). Goal-setting is important for establishing processes to attain specific results. Learning goals can be used for improving knowledge and skills. The setting of ambitious goals in the workplace without guidance or supervision, however, can negatively impact workers' attitudes by creating stress (Seijts & Latham, 2005). Professional skill is acquired through knowledge and practical experience (Dall'Alba & Sandberg, 2006). Employees today are expected to be proactive, enterprising, responsible and self-reliant professionals. Moreover, they should be competent and flexible team players who are able to apply and share their expertise in service of shared goals and who adopt their expertise continually to new insights and developments (Westers, 2004).

### **Individual Growth**

Professional development is defined as the acquisition of knowledge and skills.

Professional development can be a catalyst for keeping workers up-to-date, supporting change in the workplace, or outlining the impact of procedures on job expectations. Opportunities for professional development in the workplace may be provided through courses, workshops, or activities designed to enhance job skills, on a formal or informal basis (Dall'Alba & Sandberg, 2006). Continuing to learn can include unstructured activities such as talking informally with colleagues or thinking about a difficult workplace issue while at home (Webster-Wright, 2009). A worker's job satisfaction can be enhanced through the pursuit of new activities such as joining an organization, volunteering, exercising or pursuing an advanced degree. Participation in professional organizations and listservs can expose workers to new ideas and provide a professional network of individuals with similar interests and concerns (Woods & Weasmer, 2004). Many professional development practices focus on providing content rather than on enhancing learning. Changes in practice are initiated by professionals who challenge assumptions and practices. Professional development is needed for continued professional growth to maintain high-quality standards and procedures. "Across professions there are increasing pressures toward the pursuit of more effective, efficient and evidence-based practices that deliver improved outcomes for clients" (Webster-Wright, 2009, p. 702).

New demands caused by rapid changes in society, the workplace and information technology have increased the need for experts (Katajavuori, Lindblom-Ylanne & Hirvonen, 2006). Deliberate practice, not experience, is the most significant factor in the development of expertise. The process of deliberate practice involves preparation, performance, de-briefing and sharing with other professionals on an informal and formal basis (Fadde, 2009). Staff report challenges to ongoing IT user innovation that include work overload and autonomy in the job

arena (Ahuja & Thatcher, 2005). In a work environment of downsizing and re-structuring, workers report being asked to do more with less. Some workers manage required tasks but women, in particular, feel too overwhelmed with tasks and commitments to explore methods for using technology. Other workers report that being overloaded with commitments is an incentive for finding ways to use technology to enhance autonomy. Autonomy frees workers from standard work schedules and is mentioned as a beneficial technological innovation. Workers spend hours each day at the computer with the increase in digital communication. One study outlining the effect that computers, specifically e-mail, is having in the workplace found that users were interrupted every 11 minutes and spent an average of 25 minutes getting back on-task. E-mail is thought to diminish productivity because the constant interruptions and shifting of attention detract from focus possibly causing tiredness (Glendinning, 2006). Additional disadvantages of e-mail cited in studies include its demand on unstructured time, lack of standards, possibility for tone to be misconstrued, unintended receiver mistakes, and dehumanizing tendency. Ethical issues resulting from the application of technology include digital copyright infringement, inappropriate use of technology and the violation of private online information (Lin, 2007).

Much of an organization's information is housed in individual workstations, undocumented and stored according to "idiosyncratic filing schemes" (Bikson, 1994, p. 50). With the availability of tools that facilitate shared tasks and operations and the use of networked computer based tools at individual workstations, a collaborative effort for standardization is needed. New technologies are available for documenting and storing an organization's information. "Literacy is more than a set of value-free skills that can be defined, learned and measured in absolute terms and whose main purpose is to serve economic development"

(Selber, 2004, p. 497). Functional literacy is a social problem encompassing power, culture and context. Computer literacy must be perceived to include more than mastery of technique (Bikson, 1994). Future enhancements should focus on the development and validation of an integrated motivational goal-based model for continued innovative and creative computer based usage (Steel & Konig, 2006).

## **CHAPTER III**

### **METHODS**

#### **Problem Statement**

The topic investigated in this study was attitudes of computer users in the workplace towards intermediate and advanced training opportunities.

#### **Design**

This was a descriptive study using interviews on a purposive sample. The researcher used qualitative methods for interviewing participants and collecting information. The independent variable of training was explored through the dependent variables of computer use, attitudes and motivation towards continued learning.

#### **Participants**

The researcher chose to interview five current colleagues with different levels of authority and job responsibilities in the financial aid department of a suburban, private liberal arts college. The respondents differed in ethnicity, gender, education and age providing a small yet diverse group for the study.

#### **Procedure**

Each staff member selected the date, time and location for his/her interview. All respondents, except one who was more comfortable submitting answers in writing, chose his/her own office for the location. The researcher focused on the topics of daily computer use at work and participation in training activities using a semi-structured guide to ask open-ended questions. Potential questions were e-mailed to participants at least two days prior to the scheduled interview session. During the interviews, the questions were not always asked in the same way

or in the same order. Participants could elaborate on the topics and share information in their own words and perspectives. The researcher was able to hear what each worker considered to be important in relation to computer use and access to training. Face-to-face conversation allowed the researcher to make observations beyond what was orally expressed. In some cases, body language provided unspoken cues for feelings beyond verbal expressions. The interview notes were transcribed after each session. After all the interviews were completed, the transcriptions were hand coded in an effort to identify commonalities, that is, themes (see appendix A).

## **CHAPTERS IV AND V**

### **DISCUSSION AND ANALYSIS OF THE DATA**

The intent of this study was to explore computer use and technological training opportunities at one suburban, private liberal arts college. The names of the institution and participants will remain anonymous to protect their confidentiality. Individual interviews were conducted with financial aid employees to determine their experience, attitudes and use of computers in the workplace and utilization of training and professional development opportunities. In these chapters, common themes derived from the interviews were outlined, similarities and differences between findings and the literature review were discussed, and the researcher concluded with suggestions for improving computer use and job efficiency in the workplace.

#### **Threats to Validity**

All research studies face threats to validity. In particular, those threats can be organized into external threats and internal threats. External threats go to the type of sample and in this case the study cannot be generalized beyond the financial aid department of the liberal arts college used as the study site. The purpose of the study was to explore attitudes of computer users in the workplace towards intermediate and advanced training opportunities and as such the study has met its purpose. Similarly, internal threats center on design and statistical treatment or comparisons of control and experimental groups; again this does not apply in this particular study.

#### **Discussion of the Data**

Five current employees with different levels of authority and job responsibilities were interviewed for this study. The members of the financial aid department at this small liberal arts

college were asked open-ended questions regarding computer use and continuing technological education. Despite differences regarding ethnicity, gender, education and age, study participants expressed similar opinions, considerations and concerns involving experience and skills, use of computers at work, attitudes and training opportunities.

On a scale of 1 to 10 with 10 being the most skilled, participants were asked to rate their skill for using computer technology to perform daily tasks at work. One employee abstained from answering the question responding that there was no one else with a similar position in the department to use for a skills comparison. The remaining four employees rated their skill levels as above average.

Participants were asked to define their skill sets for using computers to do their jobs. Everyone claimed to be proficient with Word, Excel and PowerPoint. Two managers acknowledged using the Internet and browsers for obtaining information; one of the two mentioned websites as another source for knowledge. One person mentioned working well in PowerFAIDS, a windows-based program developed by the CollegeBoard to automate financial aid processing, and consistently using e-mail as an effective source of communication. Another person suggested a preference for using the programming language SQL (Structured Query Language), a standardized query language for requesting information from a database, instead of creating and running reports in PowerFAIDS. The same participant mentioned the usefulness of the V-lookup function in Excel for finding specific information stored in a table or spreadsheet. Three of the five staff members interviewed used COD, the US Department of Education's Common Origination and Disbursement System, to process Federal Pell Grants and to create Direct Loan Origination files and Direct Loan Disbursement files in XML format to transmit to

COD. All financial aid employees reported using technology, specifically computers, to perform routine tasks.

Common recurring themes as workers considered their challenges with computers included application functions, updates and changes, and new systems. One respondent expressed concerns about the staff's capabilities of taking computer use to the next level, being innovative and creative about applying technological knowledge to increase efficiency and accuracy for processing financial aid.

Four of the five employees cited using computers and the Internet for entertainment to foster skills such as keyboarding, problem-solving, reasoning and hand-eye coordination. The majority of leisure-time activities referenced social media sites, gaming, and YouTube videos. The fifth employee went further and declared that "the computer and the Internet are my main sources of entertainment." The same person disagreed with the others about technological skills learned while searching websites, watching shows, videos and gaming; the opposer argued instead "that skills from surfing are common knowledge and transcend websites for work and entertainment."

All involved in the study reported high use of computers and technology at work. When asked what impact their job responsibilities have on use and skills with technology, three of the five respondents misinterpreted the query; the majority of respondents provided answers regarding the impact of computers for job responsibilities. One employee admitted not understanding the question. One manager gave the anticipated answer. "I think technological use and skills are totally developed and strengthened by on the job use. I use a computer all the time. If I do not have the necessary knowledge or skills to complete a task, I get the information by using resources available to me online, in manuals or through colleagues."

Those interviewed judged their colleagues as able to use computers proficiently. When the question was re-worded to ask respondents if they thought that their colleagues were skilled in the use of technology, the answers were divided by gender. The males answered yes. The females did not disagree with the males but they added that their colleagues' skills could be improved. A few themes were predominant among responses regarding obstacles to using computers and technology effectively. Staff members expressed concerns regarding colleagues being off-task, having limited technological knowledge and a lack of time for training.

Study participants did not have problems with changes per se but admitted needing time for learning and adapting to updates. One responder added that being able to keep up with new programs, applications and products was a constant challenge. All staff members determined that the first step when confronted with a technological issue was to attempt to resolve the problem alone, typically by reading the application's manual. Other methods for finding answers included contacting technical services, asking a colleague, reaching out to forums or list-serves and checking the Internet.

Staff was in agreement about the advantages and the disadvantages of using technology at work. Computers made it possible to complete tasks quicker thereby improving efficiency. Automated processes improved accuracy by replacing manual processes that were susceptible to human error. The widespread use of e-mail facilitated communication, created faster feedback, and made it possible to effectively reach large populations. Online training and webinars increased training opportunities, added the convenience of learning without leaving the office, and disseminated information and updates quickly. Three disadvantages were repeatedly expressed by the five study subjects: work was inaccessible or lost during power failures; security breaches and mal-ware compromised data, especially information transmitted over the

Internet; miscommunication sometimes resulted from the difficulty of conveying tone through e-mail. Four participants reported wasting at least half an hour during the day using the computer for non-work related activities. The time required for trouble-shooting errors and the physical tolls from sitting all day, typing and using the mouse were also referred to by at least one study member.

The study site offers a number of technological training opportunities online, in group sessions and as workshops. Information Technology (IT) notifies official staff of training opportunities through the College's website and e-mail. Sessions range from software, to technological assistance for systems used by the College, to consultations for digital design. Lynda training has been recently offered on a limited basis. The Lynda website provides sessions for learning software and skills for achieving personal and professional goals. Two employees reported having taken advantage of available training. One of the two stated that most of the sessions are targeted for beginners, at the introductory level. The majority of the financial aid staff has not participated in on-site training.

### **Recommendations for Study Site**

Staff responses as summarized in the Discussion of Data indicate that computers are used by all members of the financial aid staff on a daily basis. Employees use PowerFAIDS, MicroSoft Office products, and the Department of Education's software to complete routine tasks. Information is obtained from online resources including the Internet, websites, list serves, forums, and browsers. Communication is expedited with e-mail and Outlook. Everyone described an above average comfort level with using computers and technology in the workplace.

The study site is a private college. As a non-profit entity, the College's revenue is tuition. The more applications received and read by the Admissions Office, the greater the pool of admitted applicants, the greater the yield and the larger the incoming class. In this scenario, more students mean more revenue. The mission of the financial aid department is centered on assisting students who cannot otherwise afford higher education to have the opportunity through self-help (loans and work-study) and gift aid. Computers and technology have simplified and expedited the processes of applying for financial aid and awarding financial aid. At this point in the college selection process, it is all about timing. The sooner families have financial aid information, the sooner students can commit to enrolling in college. This researcher will suggest recommendations in this section for the subject site to enhance computer use and to engage community members with looking for creative and innovative ways to use technology on a daily basis.

#### Experience and Skills

Interaction with colleagues is a significant source of learning. Workers should be active in financial aid and higher education associations such as the College Board, Tri-State, EASFAA and NASFAA. Information and ideas are shared by professionals, interpretation of regulations is discussed, objectives and goals are set on a regional and national basis at meetings and conferences. Every employee should participate in at least one session annually and provide written updates for other staff members. The PowerFAIDS conference should be a priority because important user information is provided and procedural ideas can be gleaned from other institutions for expediting the processing of aid.

#### Use

Staff members commented on time spent off-task. Research also discussed the possibility that workers were not necessarily engaging in personal activities at the computer, but could be practicing skills, learning new possibilities for using applications related to work tasks. The study site does provide access to the Internet, e-mail, printers, copiers and fax machines. It is very easy and often tempting to just check on something, surf the net, print or copy something for personal use, send personal e-mails, etc. The availability of technology can be a distraction in the workplace. Workers at the study site did not perceive their time spent off-task as unreasonable but a few expressed concerns about others' misuse. Conscientiousness is a personality trait that is often defined as being careful, efficient, possessing an internal locus of control, and a desire to do a task well. Efficiency is often assessed using criteria such as keeping and completing work on schedule and within the allotted budget. If current tasks could be completed quicker, the department could provide additional services for students and families including important issues for today's economy like financial literacy, loan debt counseling, and how to search for scholarships.

### Attitudes

Management should maintain open communication with staff, provide encouragement and feedback, and assist with goal-setting to motivate workers and stimulate involvement. The focus of this type of approach is on the workers' perception of power to cope with circumstances. Goal-setting on an individual and group basis is paramount for establishing processes to attain specific results.

### Training and Development

A local community college has included long range organizational and professional development issues in its core competencies. Observers have noted that employees become

more productive on the job after participating in activities for increasing their knowledge, skills and overall effectiveness in the workplace. Information Technology (IT) at this small liberal arts college offers training opportunities. Human Resources maintain a limited amount of funds for professional development on a department or individual basis. Employees can take advantage of computer and technological training or workshops for improving professional skills. Supervisors should be charged with the responsibility of overseeing the development and ongoing pursuit of job-related competencies of employees. The requirement emphasizes the value the College places on education, professional development and customer service.

The administration could sponsor a technological challenge. The Innovation Grant Program is one way of encouraging employees to propose creative ideas.

Shared networks and drives have facilitated the movement of information and removed boundaries at the workplace. Computers and the Internet have created mobility by eliminating space and time boundaries. The VPN enables staff to work off-site and during non-business hours. Workers could be motivated to use additional platforms such as mobile phones, tablets, Skype, etc. for the opportunity to tele-commute even one day a week.

Employees can take advantage of social enterprise networks to interact with people who share similar business interests or activities. Online social networks can be a source for creative and possibly valuable information for how responsibilities are handled in other organizations.

Communication can be improved within and outside of the subject site by exploring other modes. Virtual meetings and video conferencing allow employees to participate in the group without being physically present. The data and information is shared in real-time.

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## Appendix A

### INTERVIEW QUESTIONS AND ANSWERS

#### Experience and Skills

##### **1. How skilled are you at using computer technology to do your work?**

1. I'm pretty skilled in general. On a scale from 1 to 10 with 10 being the most skilled, I'd say 7 ½ to 8. I'm very skilled in using what I use. On the same scale, I'd say a 9. I began using computers around the age of 15 – Commodore 64.

Type of learner – manual and do self

2. I'd say that my skill depends on the software. On a scale from 1 to 10 with 10 being the most skilled, I would say that I am a 6 when using PowerFAIDS and an 8 when using Microsoft Office. In general, I manage to get what I want.

3. It's a bit hard to answer because no one else does the same job to use for a comparison. I am always learning more.

4. On a scale from 1 to 10 with 10 being the most skilled, I would say that I am a 7. I am always learning new things and as things change, I look for efficiencies.

5. I have pretty good skills. On a scale from 1 to 10 with 10 being the most skilled, I am an 8. I am not so good at creating reports.

##### **2. Are you comfortable working in Excel, Word and/or PowerPoint?**

1. Yes

2. Yes

3. Comfortable, yes, but there is so much to learn and too little time

4. Yes I am comfortable working in Excel, Word and PowerPoint. I do not use Access often, so I Google for information when I use it.

5. Yes and I am comfortable with Access too. Access is good for small databases – sorting thru basic stuff. There are lots of ways to write scripts with Excel.

##### **3. What kinds of technology skills do you use well at work?**

1. I use standard office products such as Outlook, Word, Excel and browsers. I have what I call "happy accidents". If I cannot do something intuitively, then I search for instructions. I can use

Access a little bit. I have a MacPro& HP laptop at home. The MacPro has better artistic creative tools and a better platform for music.

2. I mostly use Excel, Word and PowerPoint. I use other programs too for reconciliation and disbursement reports.

3. I use the internet for different systems and I use the systems available to me through the College's system but not a smart phone.

4. I use email, the internet, information from websites and PowerFAIDS, the actual system that we work in.

5. I use SQL, determine information needed and create selection sets. I cannot delve too deeply into creating reports. I use V-lookup in Excel. I do not need to look up information or create selection sets now at work because BLS writes the reports. I use COD/XML for sending and receiving files and COD ED Connect for web work.

**4. What kinds of technology skills that are needed for your job do you find challenging?**

1. I just do it and learn it.

2. I have system challenges such as creating selection sets when working with PowerFAIDS. I can usually make do or get assistance.

3. I guess you would say that Access is challenging because I would like to increase my knowledge about it.

4. I find it challenging to stay on top of updates, changes and new systems.

5. I find it challenging to continue to be innovative and creative, using technology to your advantage, especially PowerFAIDS, Excel and Word. I pull data out and compare it to data from COD.

**5. Do you think that the skills you may acquire in using the internet for entertainment transfer to your work? What are the components of those skills?**

1. Yes, keyboarding, problem-solving, logic and hand-eye coordination.

2. Yes, typing, hand-eye process, internet, webinar prioritization. Common sources of entertainment allow you to be there and be a part even though physically not together.

3. I would say that coordination skills can be learned from the entertainment skills. Not much of a game player.

4. Sure. Some of the skills include research and looking up regulations.

5. I would say not particularly. Skills from surfing are common knowledge and transcend websites for work and entertainment.

## Use

### **1. Do you use technology frequently at work?**

1. I constantly use technology at work.
2. Yes, I frequently use technology for my job.
3. I would say I am computer literate but there are so many different types of technology; software, hardware, writing scripts, and simply using software. I am a user. I use what is available on my computer.
4. I use technology all the time for work.
5. I do always use technology for work; I think that the furthest I will take it, though, is SQL XML.

### **2. What impact do you think job responsibilities have on use and skills with technology?**

1. I have been building skills with technology in school and at work for over 30 years.
2. I would say with technology, work is not as manual and it is easier to make sure nothing is missed. Fewer mistakes are made and work can be done faster. I am not as confident in PowerFAIDS technology, particularly working with large disbursement rosters.
3. I am not sure I understand this question.
4. I think technological use and skills are totally developed and strengthened by on the job use. I use a computer all the time and if I do not have the knowledge or skills to complete a task, I get the necessary information.
5. I think computers have the greatest impact on large jobs, specifically reconciliation. Technology enables the work to be done efficiently. I think technology has to be your friend particularly for pulling information out, setting up selection sets, and creating searches.

### **3. Do you use computers and the internet for entertainment? Do you think that the computer is an enjoyable source of entertainment?**

1. Yes, I enjoy using social media like FaceBook and LinkedIn, watching videos on You-Tube, and playing strategy games.
2. Yes, I enjoy using the computer for entertainment.

3. I don't necessarily think using the computer is enjoyable; however it is a good way to keep in touch with family and friends. The computer does make things easier when I have a task at hand.

4. Yes, sure I enjoy using the computer and the internet for entertainment. I watch television, play games, and use social media sites.

5. Yes, the computer and the internet are my main sources of entertainment.

**4. How much time in the course of one day do you think you waste either doing non-work related activities at the computer, or dealing with a technological issue?**

1. I probably waste 30-60 minutes a day, not a lot.

2. I waste less than 30 minutes a day whether or not I am using technology. I think I am distracted by the capability of multi-tasking and easy access to information that computers provide.

3. I do not waste much time at all. I will use my lunch hour, if I take one. I check the news in the morning and afternoon. I think that the novelty has worn off.

4. I probably waste ½ hour to an hour every day.

5. I guess that I waste 45 minutes to an hour every day, especially starting up in the morning and after lunch.

**5. What are the major obstacles that you see to more effective use of computers and information technology in your department?**

1. I think scanning documents and instant messaging.

2. I think the limited time that I have for training opportunities pertaining to my needs. No one is really proficient.

3. People need to stop browsing the internet and do their work.

4. I think time is a major obstacle – no time to learn new things. I would say that the lack of resources – professional development. I also find it challenging not knowing where to go, who to ask, for assistance. It is difficult when we to rely on others. For example, we are waiting for IT to install Image Now so we can scan everything and be paperless.

5. I think gaps in workers' technological knowledge and skills are major obstacles in our department. I reach out to see what other institutions do – bench marking. For example, other institutions using PowerFAIDS stack programs on top thereby creating a more powerful system. We need to be more innovative. For example, we could use XML scripts to pull data instead of using reports.

## Attitudes

### **1. How good are you at dealing with changes in technology, a new set of programs or when what you are used to working with is not available?**

1. I do not have problems, but sometimes there is a learning curve.
2. If I understand and it's easy to use then there is no problem. I only need what works efficiently. For example, the I-phone updates drive me crazy. I do not need more bells and whistles.
3. I must admit it gets tiring because every day there seems to be change and I would just like to have time to do what is there that day instead of always trying to catch up to new changes and challenges
4. Yeah, I am pretty good with changes, new sets of programs and improvising. For me, time is the issue. Sometimes the changes are good; however, there always seems to be a lack of time for adapting or learning new things.
5. I am okay with new programs and keeping up with what is new. When I first started working here, I had never used PowerFAIDS. I previously used People Soft (Oracle product). Oracle is a for profit organization and its selling point is that Oracle provides the best product. The College Board is a not-for-profit. Consider the update from 2007 to 2010 Word – the adaptation was mostly just a matter of finding where things are located.

### **2. When you have an issue with technology, do you first try to resolve the problem yourself by checking a manual or the internet? What do you do next?**

1. Yes, I first try to resolve problems myself. If I cannot find the answer, then I call the Help Desk or ask a colleague.
2. Yes, I first try to fix it by myself. Then I ask for assistance from others, check the internet and/or use the manual.
3. I prefer to try to figure it out on my own but realize there is a time limit. I will check a manual, reach out to the forums & the Help Desk.
4. Yes I will first try to resolve by myself. Then I will rely on colleagues, friends, the Help Desk, and forums.
5. I use a manual first if I am having a problem with PowerFAIDS. If I cannot find the answer then I ask BLS and/or tech support. I call help numbers if I am having a problem on a Federal Site. There actually are not too many issues with the Federal Sites other than them being down.

### **3. What are the major advantages that you see in using technology at work?**

1. I think work gets done faster and communication is easier with e-mail.
2. I think better efficiency, easier to reach those we serve, increased possibility for training and leisure, online study opportunities, able to reach out to more people and better access to information.
3. I have seen over the years with increasing changes in software jobs can become easier and more accurate.
4. I think efficiency and speed are major advantages in the way of communication today.
5. It speeds up a lot of processes, especially since we are no longer mailing in disbursements and originations. It makes processing more accurate when adding numbers and comparing data. It's a real time-saver.

**4. What are the major disadvantages that you see in using technology to do your job?**

1. I think as a form of communication, it is less personal. Not always one simple thing. The power goes out and work is inaccessible or lost.
2. I think security breaches and mal-ware are an issue. Sometimes it's hard to convey tone through an email and miscommunication may result.
3. I am actually afraid that my hands are going to give out and I worry about arthritis.
4. I don't think it's true that personal connections are lost through using the internet. I do think it is possible to send an email to wrong person.
5. I think security is a major issue because it is easy to compromise data transmitted over the internet. Technology can break down which is bad because we are so dependent on it at work.

**5. Do you think in general your colleagues are skilled in the use of technology?**

1. Yes.
2. I think everybody uses technology well enough to do their jobs.
3. I think they have different sets of skills but I do feel that like me they need additional training.
4. I think our skills can always be increased.
5. I think so, especially related to the systems we use on a daily basis.

**6. Do you think college employees believe computers are helpful for job performance?**

1. Yes.
2. Yes.
3. I do not believe they are helpful. I believe they are necessary.
4. Yes, but many still prefer paper.
5. Yes regarding administration but I am not as sure about the faculty.

**7. Which two of the following potential computer uses at work do you think are the most significant? Presentation of complex information, organization and management of information, communication, collaboration, prompt feedback**

1. organization and management of information and prompt feedback
2. organization and management of information and presentation of complex information
3. communication and collaboration
4. organization and management of information and communication
5. organization and management of information. As long as the data is good - META data – then it's a good way to access.  
presentation of complex information. There is presently a huge push for human – computer interaction.

**Training**

**1. Are you informed about opportunities for technological training that are available through your department or at the College? If so, how are you informed about the opportunities?**

1. I am scheduled to be given an oral overview tomorrow about opportunities through CTLT.
2. I receive emails of offering but am not real thorough about reading everything that comes through.
3. I do check the website and would like to take time to learn about Lynda.com.
4. We are informed about opportunities but IT could be much better about letting us know and offering more things. I usually learn about training that is available through e-mail, flyers or word-of-mouth.
5. Yes, I look at emails from CTLT about what is being offered. I think most of the training opportunities seem introductory. Time to participate is an obstacle for me.

**2. The study site offers a number of training opportunities, have you taken advantage of any sessions offered by IT? If so, what training have you taken? Was the information helpful for your work?**

1. No.
2. I have not taken any advantage of training offered at the College.
3. Yes, I have participated in training sessions. I have even requested a class for the staff and CTLT was helpful in seeing that this was done. However, there was no follow through by the staff to learn it.
4. No, because of a lack of time I have not attended any training sessions offered at the College.
5. Yes, I attended a session about photo-shop. I was interested in learning about photo-shop for more personal stuff. I actually use Gimp which is a free program more than photo-shop.

### **Proposals**

**1. What advice would you give college administrators for promoting the effective use of technology in the College's business offices?**

1. I would require employees to spend a specified number of hours on personal development.
2. I think we should all stay current on technologies that can help us do our jobs efficiently. Better phones would help us to work more efficiently.
3. One thing that was begun with AIMS and instituted when we first received Power Campus was a user group. It would be helpful if others shared their knowledge. Also, in our office using webinars offered on different sites. I went to one of the meetings for CrossRoads and suggestions included a list serve within the College's site where we could ask others for assistance. I also think our job could be easier if some of the offices shared access to information on PowerCampus.
4. I think we need professional development opportunities. Even if training is available, it is not well promoted.
5. I think the same as question 16. Make our product within a cost versus benefits model – push stuff out quicker and take on more students.

**2. What sorts of things should administrators do to facilitate the staffs' technological knowledge and improve computer use?**

1. I think training should be emphasized.

2. I think proper training should be available for what you need and it should be part of what you have to do.
3. Rewards which of course have been non-existent - neither monetary nor promotions.
4. I think they should promote more professional development.
5. I think workshops should be offered, information should be shared, and meetings should include training. I think it is pointless to have new technology if no one knows how to use it. Workers should be given advance notice of opportunities and updates should be provided earlier than later.