Impact of Online Learning

on Student Effort and Persistence in

Technical College Students

by

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A Grant Proposal Project Report
Submitted in Partial Fulfillment of the
Requirements for the
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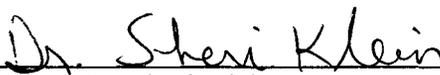
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ABSTRACT

Technical colleges have increased online learning opportunities in order to meet the needs of students. There is a need to understand how online courses affect general student outcomes, specifically, student effort and persistence within the technical college system. The project is significant because it will expand the knowledge base about online learning, student effort, and student persistence.

The project will identify factors of effort and persistence within groups of students who are starting their technical college experience, those who are completing their programs, and those who have not persisted in their education. Factors of effort and persistence will then be correlated with students' preferred method(s) of delivery. Anticipated outcomes are a greater understanding of the impact of online education on

technical college students' efforts in learning and persistence, which may assist administrators in developing more effective distance education programs.

Grant funding is needed, support staff, data collection, and dissemination. Upon completion, findings of this study will be disseminated through journal articles, presentations to administration, and at professional conferences. A project report to the granting agency will include a copy of the final paper, a record of expenditures, and, upon request, an audited financial statement of expenditures related to the grant.

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Acknowledgments

I would like to thank my graduate advisor, Dr. Sheri Klein, for making this project a reality with patience and guidance throughout the process. I would also like to thank all of my professors at UW-Stout for agreeing to teach online. It was a great experience. I am also grateful to the Graduate Education Department at UW-Stout for making it possible for students to attain Master's Degrees in this manner.

Lastly, I would like to thank my family. First, to my high-school age son, Joel, many thanks for sharing the "homework" computer. To my college-age sons, Kyle and Arek, thank you for commiserating with me as we attended three separate UW-System colleges for the past two years. It was great being a college student (again) with both of you. Finally, many thanks to my husband, Ed, for his love and support during the past 25 years.

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Chapter 1: Introduction

Statement of the Problem

Online education has become commonplace in every type of institution of higher learning. Today, students can become distance learners through the World Wide Web. The benefits of online courses include flexibility, convenience, and cost-effectiveness (Carnevale, 2000). Online learners have a wide choice of options and can enroll in almost any university, college, or technical college nationwide, or worldwide. The new technology has driven this growth in online learning, to the benefit of nontraditional students, who have limited time due to work and family responsibilities, and for rural residents, who are place-bound due to geographic location. (Zirkle, 2002).

Technical colleges have likewise increased online opportunities in order to meet the needs of students. In 2005, more than 76% of community colleges offered some form of distance learning in community and technical education (CTE) (Benson, et. al., 2006). Students who choose distance education in post-secondary education can be differentiated from the general student population. They are more likely to be older, female, and have multiple responsibilities with work and family (Sikora, & Carroll, 2002). One study noted a significant age difference between students who attended a Community and Technical Education (CTE) business class face-to-face and online. Those who attended class online were, on average, 23; those who attended class online were on the average age 37 (Tucker, 2000). Another summary of literature noted that online learners were predominantly visual learners and spent more hours per week on classwork; they also had a higher family income and more previous education than traditional learners (Halsne & Gatta, 2002).

Retention of nontraditional online students is of concern to administrators. Rovai (2003) stated that administrators need to increase persistence in postsecondary programs due to the increase in numbers of nontraditional students, the number of programs that cater to nontraditional students, and the importance that the U.S. federal government is placing on retaining nontraditional students.

What are the issues involved in retaining online students versus on-campus students? A 1999 study indicated that factors influencing the retention of midlife adult students include encouragement, support, institutional commitment, academic and social integration and self-motivation (Greenberg, 1999). In 2001, the Community College Leadership Program at The University of Texas at Austin identified five benchmarks of effective educational practice in community colleges. These benchmarks are: active and collaborative learning, student effort, academic challenge, student-faculty interaction, and support of learners. (Community College Student Report, 2003-2008). It is unknown if any of these factors apply equally to online and on-campus students.

It is timely to begin to understand how online courses affect student effort and persistence. In particular, it is necessary to understand the impact of online education on students who attend technical colleges, and what factors influence their retention. This proposed study intends to address the lack of data about student retention in technical colleges, the role of student effort and persistence of technical college students, and how these factors may impact online learning.

Significance of the Problem

The project is significant because it will expand the knowledge base about online learning in technical college programs. The study will investigate whether and how online learners demonstrate effort and persistence in the completion of their programs. Research in

this area is needed as online education has become accepted and prevalent in post-secondary education, however, there is a lack of data concerning career and technical education programs.

Assessing these factors can be valuable to those who design programs and seek to improve individual courses. Carr (2000) reported that national statistics concerning how students complete distance programs is sparse, however, anecdotal evidence suggests that program-retention rates were lower in distance education versions courses than in the face-to-face counterpart. Carr (2000) reported that speculation as to why there might be a difference generally formed into two camps. He stated that one group of instructors and students believed that non-persistence was related to the fact that distance education students were generally older, and had more general obligations, which take up the time needed to complete coursework. Another group believed that the fundamental difference between the modes of instruction was the main factor in non-persistence, that is, students who attend online must be comfortable with technology, and confident of their work.

Responses from students who do not persist are of particular interest to institutions. Herbert (2006) stated that students who are more satisfied with their education are more likely to graduate. He adds that assessing student satisfaction can be valuable in improving programs and courses. If this study indicates a correlation between students who do not persist and the method of delivery, assessments and modifications can be proposed to increase retention rates.

The project is aligned with the worthy goal of equal access to education regardless of the geographical location of students. Rural students in particular will benefit from an investigation of their perceptions about the effectiveness of online delivery and other factors that impact their ability to complete a program. An issue related to this goal is community

sustainability. Technical colleges often serve to transition adult students from one career to another due to workplace layoffs or closings. Taking online CTE courses is sometimes the bridge between a job layoff and the start of a new career. If technical colleges can design distance education coursework that can assist in increasing student retention, then communities that are facing economic stressors, such as plant closings, etc., may be able to sustain and support a skilled work force.

In summary, the study will benefit several populations. First, technical college administrators who are considering implementing or improving online programs will benefit from having data about student effort and levels of persistence of online learners. Second, this study may benefit learners (traditional age and rural) in understanding how effort and perseverance play an important role in program completion. Finally, the nontraditional learners who are busy with work and family obligations, and who are located miles away from the nearest college campus, may also benefit from understanding factors about online delivery systems that enable them to complete their educational programs.

Assumptions

In submitting this proposal, the researcher makes the following assumptions about technical college students, online learning, technical college students, and technology.

First, students who enroll in technical college are practical, employment-oriented students who do not desire, for various reasons, to learn in subject areas extraneous to the career area in which they are interested. They tend to be older and focused. While they do take general elective courses for their program, their course of study is intended to build employment-related skills related to their current position, or future careers.

Second, they are more likely to be nontraditional students in terms of age, marital status, and employment status. Many juggle jobs, family responsibilities, employment and

education simultaneously. They are likely to be self-sufficient adults, not dependent on parents for support (Zirkle, 2004).

Third, technical college students are interested in completing their college programs in the most time-efficient way possible. Students who choose online learning may do so because of the convenience of the delivery system and decreased cost of travel to campus. It is also assumed that online learning will help bridge the gap between rural and urban residents in the area of equal access to education at all levels.

Online education itself has advanced rapidly in the past several years. Today, it can be assumed that well-designed online courses are equivalent in content and outcomes when compared to face-to face learning courses (Russell, 2001). It is likely that the perceived issues and concerns about student retention in online technical college programs will continue as access to technology increases, and as online course development continues to escalate.

Definition of Terms

Career and Technical Education (CTE) – A descriptive term encompassing a number of initiatives designed to prepare students for the working world. The programs are housed within high schools or in postsecondary institutions, and can prepare students for the working world in general, or for specific careers, for example, nursing or computer networking. The career and technical education programs of today incorporate academic content standards and a sequence of courses leading to an industry-recognized credential or certificate, or an associate or baccalaureate degree (United States Department of Education, n.d.).

Community College – A public institution of higher education. Community colleges utilize a two-year curriculum that leads to an associate degree or transfer into a four-year college. The transfer program is comparable to the first two years in a four-year college.

Students who finish a two-year degree program are prepared for entrance into a specific occupation (Answers.com, n.d.).

Distance Education – An educational process in which the learner and instructor are not physically located in the same place at the same time. The field of distance education is undergoing constant change, which is reflected in the literature cited in this proposal. The term "distance learning" as cited in various publications may consist of several formats through which the field has evolved. A brief summary of the five types of distance education, in order of development, includes mailed print materials, audio/video broadcasting, audio/video interactive television, computer-aided instruction, online learning, and webcasting technology. The three main concepts related to the term "distance education" are education, overcoming barriers of place and time, and a tool that is used to facilitate learning (Educational Encyclopedia, n.d.).

Motivation – The willingness to persevere in an educational program despite the presence of discomfort and discouragement. Or, a drive that compels action toward the goal of learning. Motivation can be intrinsic (internal), based on personal interests, desires, and need for fulfillment; or extrinsic (external), and based on factors such as rewards or praise (Answers.com, n.d.).

Non-Traditional Students – Students who have one or more of the following characteristics: delayed enrollment into postsecondary education from high school; attends school part-time; works full-time while enrolled in school; is considered financially independent; has dependents other than a spouse; is a single parent; or does not have a traditional high school diploma (United States Department of Education, National Center for Education Statistics, 2002).

Online Education -- A distance education method which is characterized by the separation of instructors and students, with the involvement of an educational institution, using a computer to present and/or distribute content, and includes communication between students, instructors and staff (Paulson, 2002).

Persistence -- The state of uninterrupted succession. In this study, persistence will refer to the act of continuing one's education, regardless of obstacles, until the completion of the course of study through graduation.

Student Effort -- Refers to whether a student tries hard, asks for help, and/or actively participates in class. Whether students exert effort is a choice or decision that is made by the student about whether success is possible (Education Encyclopedia, n.d.).

Technical College -- Refers to institutions awarding no higher than a two-year degree or diploma in a vocational, technical, or career field. Technical colleges often offer degrees in applied sciences and in adult and continuing education (Answers.com, n.d.).

Methodology

A search of the current literature in this area of study will highlight the findings of "no significant difference" (Russell, 2001) between online and face-to-face education, studies related to CTE topics, studies of effort, motivation and persistence. It will then summarize and relate the topics to each other within the scope of this project.

The goals of the study are to identify factors of effort within groups of CTE students, identify their preferred methods of course delivery, and correlate factors of persistence and effort with method of course delivery (face-to-face and online).

The methods of study will include: 1) the identification of participants, 2) collection of quantitative data through surveys, 3) collection of qualitative data through focus groups and interviews, 4) mathematical analysis (causal correlation analysis and two-variable Chi-

square test) of quantitative data, 5) analysis of qualitative data by content analysis (Tere, 2006), and 6) dissemination of data to respective parties (campus administrators, faculty who teach online, and program administrators).

Project Tools

A written survey instrument will be used this study -- The Community College Student Report (2003-2008). This instrument is part of the Community College Survey of Student Engagement *(CCSSE)* project affiliated with the project Community College Leadership Program at The University of Texas at Austin and is a standardized instrument tool.

The survey addresses five benchmarks of effective educational practice in community colleges: active and collaborative learning, student effort, academic challenge, student-faculty interaction, and support of learners. Students will be asked to complete the entire survey, and the questions related to student effort will be used in the mathematical evaluation for this study (See Appendix C).

The focus group interviews will be used to collect qualitative data. The focus group interview tool (See Appendix C) is also a standardized instrument from the Community College Student Survey project. The tool is a plan for conducting the focus group and individual interviews in a manner that will enhance the gathering of qualitative data beyond the quantitative questions found in the survey. The researcher will use the protocol as an outline and reference when the focus groups are conducted. The focus groups and individual interviews will be videotaped, transcribed, and analyzed for emerging themes using content analysis (Tere, 2008).

The success of the study will be measured by the production of a final paper, which will be sent to peer-reviewed journals for publication. The project timeline will be one academic year, starting in August 2008 and ending in August 2009.

Chapter II: Literature Review

Educational literature has been following the trend in distance education, specifically

online education, since it began. In the early 1990s, the first studies of online learning

focused on student perceptions of their experience. In the late 1990s, a new set of studies

focused on whether online learning was comparable to face-to-face learning within the

context of a single class. It was determined from initial studies that there was no significant

difference between the two methods of delivery (Russell, 2001). Further research within the

past several years has confirmed this fact (DeNeui, 2006; Harting, 2007; Warren, 2005).

However, research on online education within the career and technical education

(CTE) field has been limited. A 1999 study of non-traditional engineering students

recommended that the Internet be added to the repertoire of strategies to maintain adult

students (Hoffman, 1999). One researcher, Zirkle (2004), found that most of the research

conducted on distance education in CTE is either descriptive, or uses case studies that

compare a specific traditional class to a distance education class. Zirkle (2004) found only

five studies correlated two or more quantifiable variables, and he found no experimental

studies at all. A more recent CTE study, (Williams, 2006) found that student achievement

assessed through course grades showed a very small positive effect for distance learners

versus traditional students.

The motivation and efforts of students who choose different methods of delivery has

been studied by Rovai (2007) in three universities. His study of 353 students who attend a

state university, a private Christian university or a private secular university, provided

evidence that online learning students possessed stronger intrinsic motivation than on-

campus students. He noted that the differences may be due to the type of student who would

self-select online learning as their preferred method of delivery. However, he also noted that the experience of online learning itself may enhance student self-efficacy and promote lifelong learning (Rovai, 2007).

Parker (2003) reiterated this theme in proposing that students who complete one or more online courses may increase their sense of personal competence, which in turn will indicate persistence in their learning program.

There are few studies relating to the persistence of CTE students in the current literature. One study of CTE student success related distance learning to withdrawal rates, in that slightly more distance education students withdrew from classes (19%), as compared to 21% of traditional students (Hogan, 1997). However, this study was completed before online distance education became a common educational delivery system. Kemp's (2002) study related the persistence of CTE distance education students to life events, external commitments and resiliency, but she did not include on-campus students in the study. Nash (2005) studied the retention rates of distance-learning community college students, but only to determine why they dropped or failed particular courses. Benson, et. al. (2005) studied motivation as part of a small sample of online programs in two community colleges. She tentatively stated that students in online CTE courses appear to be as motivated as those in face-to-face classes.

Current literature in the field of education in general does not address the relationships of online learning with general student outcomes (Tallent-Runnels, 2006). Zirkle (2004) states that it appears distance education and CTE education are a good match, but more research needs to be conducted in this area, especially with more correlational, experimental, and qualitative research. This proposed study includes causal correlation analysis on factors of effort and persistence of CTE students via data collected in surveys,

and content analysis of qualitative data collected in focus groups and interviews. It will study how persistence is impacted by the online learning experience using correlational and qualitative research.

Chapter III: Project Goals and Objectives

Connections between the preferred type of learning environment, student effort, and persistence will be explored in this study. The overall aim of this study is to determine if an online learning environment has a connection to factors of student effort, persistence and program completion. The following are five goals of this study:

Goal 1: Identify factors of student effort within groups of students who are beginning their technical college experience and those who are in mid-program using quantitative and qualitative data collection methods.

Objective: A. Collect quantitative data concerning student effort using two groups of randomly selected students.

1. One group will consist of new (less than one year) students.

2. The second group will consist of students in their second year or beyond.

Objective: B. Collect qualitative data through the use of focus groups with two groups of randomly selected students.

1. One group will consist of new (less than one-year) students.

2. The second group will consist of students in their second year or beyond.

Goal 2: Identify students' preferred method of delivery using quantitative and qualitative methods.

Objective: A. Collect data through survey methods to determine preferred method of delivery.

Objective: B. Collect qualitative data through the use of focus group interviews with two groups of randomly selected students.

1. One group will consist of new (less than one-year) students.

2. The second group will consist of students in their second year or beyond.

Goal 3: Analyze quantitative and qualitative data to relate factors of student effort to preferred method of delivery.

Objective: A. Analyze quantitative data from surveys and enrollment records to determine factors of student effort they relate to methods of delivery, using a causal correlative analysis for factors of student effort.

Objective: B. Analyze qualitative data on student effort from focus groups and individual interviews using content analysis.

Goal 4: Analyze quantitative and qualitative data to relate student persistence with preferred method of delivery.

Objective: A. Analyze quantitative data from surveys and enrollment records using a two-variable Chi-square test.

Objective: B. Analyze qualitative data on students who do not persist using content analysis on data from individual interviews.

Goal 5: Disseminate data.

Objective: A. Write a paper of the findings and submit to refereed journals for publication. Submit the paper for presentation at a professional conference.

Objective: B. Submit articles about the study to interested parties at the college, including administrators, faculty and students, and to the local media for the general public.

Goal 6: Evaluate the project.

Objective: A. Evaluate goals and objectives for completion within the timeline and within the budget allotted.

Objective: B. Evaluate the overall project using the project evaluation tool.

Chapter IV: Project Methodology

The methodology of this study includes both qualitative and quantitative methods. Quantitative analysis will be performed using standardized survey results and statistical methodology. Qualitative data will be gathered from focus groups and individual interviews and evaluated for patterns of response.

Action Plan

Objective 1: Quantitatively measure factors of student effort in two groups of randomly selected students using a standardized survey [Goal 1, Objective A].

A group of 70 possible participants will be chosen at random using student identification numbers. Group one (35 students) will consist of freshman or those with less than one year of attendance. Group two (35 students) will be those in their second year or more. The students chosen at random will be contacted and asked to participate in the study.[1] Student effort factors and preferred method of delivery will be measured quantitatively with a questionnaire. The questionnaire will be available in both print and online versions.

Objective 2: Quantitatively analyze and relate data on student effort with preferred method of delivery [Goal 3, Objective A].

A causal correlation analysis for motivational factors will be performed on the survey results (Wasson, 2007). The independent variable will be the effect that has already taken place, that is, the student attends either online or in a face-to-face environment. The dependent variable will be indicators of student effort as measured by the standardized survey instrument produced by the Community College Survey of Student Engagement (CCSSE). The null hypothesis is that there is no difference in student effort in those who

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[1] Approval to conduct a study using human subjects has been obtained through the Institutional Review Board of University of Wisconsin-Stout.

attend online versus those who attend face-to-face. The means of student effort factors versus preferred method of delivery will be tested with an independent t-test for statistical significance. Because students may attend both online and face-to-face courses simultaneously, students who take more than 75% of their class credits online will be characterized as online students in this study. Those who take 25% or fewer of their class credits online will be characterized as face-to-face students. Students with between 25% and 75% of their courses online will be excluded.

Objective 3: Quantitatively analyze and relate data on persistence versus preferred method of delivery [Goal 4, Objective A; Goal 2, Objective A].

A two-variable Chi-square test will be performed on the data. The null hypothesis is that there is no differences between the persistence of those who take online courses and those who do not. The alternative hypothesis is that there is a difference in persistence in those who are online students and those who are not (Wasson, 2007).

Objective 4: Qualitatively describe factors of student effort and preferred method of delivery within two groups of randomly selected students [Goal 1, Objective B; Goal 3, Objective B].

One group will consist of new (less than one year) students. The second group will consist of students in their second year or beyond. The measurement tool will be focus group interviews of eight participants chosen at random by student identification numbers from within the two initial study groups. The project director will act as moderator and follow the focus group discussion protocol (see Appendix B) from the Community College Survey of Student Engagement. The protocol will encourage discussion of the survey items related to student effort.

Data will be collected by videotape and transcript from the focus group. The format

for analysis will be content analysis, which is appropriate for open-ended questions that have

been added to related quantitative survey items (Tere, 2006). Categories for coding the

content will emerge from the transcripts, rather than be pre-determined. The data will be

collated and interpreted in terms of the codes identified. The qualitative data will be

compared with the quantitative data. Qualitative data may provide further detail that is

missing from the quantitative data, may contradict it, or may reveal important information

that is not revealed elsewhere (Buntine and Read, 2007).

Participants will be compensated with a cash payment of $50 at the end of the focus

group session. Participants will evaluate the focus group experience with a short survey (see

Appendix C).

Objective 5: Qualitatively describe and relate factors of student effort versus

preferred method of delivery in students who do not persist [Goal 2, Objective B; Goal 4,

Objective B].

Non-persistent students will be identified as those who do not register (and have not

graduated) for the following semester, using the data from the college enrollment database.

Students who do not persist will be contacted and interviewed using the focus group

discussion protocol tool and questions (see Appendix C). The format for analysis will be

content analysis of questions related to their non-persistence. Interviews will be videotaped

and transcribed. Categories for coding the content will emerge from the transcripts, rather

than be pre-determined, in the same manner as for the persistent group. Participants will be

compensated with a cash payment $50 at the end of the individual interview. Participants will

evaluate the interview experience with a short survey (see Appendix C).

Project Timeline

<u>July/August</u>

Permission to conduct study through the UW-Stout Institutional Review Board will be completed.

<u>September</u>

Participants will be selected to participate in the study through random selection. Participants will be notified that they are part of a study.

<u>October</u>

Study participants will complete the written survey.

<u>November</u>

Quantitative data from surveys will be analyzed.

<u>December</u>

Begin focus group interviews with Focus Group 1. Conduct individual interviews with any non-persistent students.

<u>January</u>

Begin focus group interviews with Focus Group 2.

<u>February-March</u>

Analyze qualitative data from focus group interviews.

<u>April</u>

Conduct interviews with additional non-persistent students.

<u>May-June</u>

Analyze qualitative data from non-persistent students.

<u>July – August</u> Report completion and dissemination of findings to appropriate professional journals, administration, faculty and staff.

Dissemination Plan

For college staff, e-mail will be used to deliver an informational summary about the project. When the final project is completed, the project director and assistant project director will present a summary at the yearly staff in-service meeting. The final project paper will be housed indefinitely on the college network, and at the college library. Administrators will be kept informed of the study's progress through e-mail.

On a regional or national scale, the project director and assistant project director will apply to attend appropriate conferences to present the findings of the study. Findings will be submitted to peer-reviewed journals for publication. The results of the research will become part of the knowledge base of online education, technical college education, student effort, and student persistence.

For dissemination to the general public, information about the study will be sent to local media through an institutional press release. The project director will write an article geared to the general public about the research and its implications. The piece will be submitted to local newspapers for inclusion in their education sections, and submitted to applicable online outlets.

Budget

Direct Costs	Grant Request	Cost-share (match)
Personnel		
1. Salaries and wages		
Project Director		
416 hrs. X $23.25/hr. = $9,672	$9,672	0
2. Salaries and wages		
Assistant Project Director		
(10% time @ $58,000)= $5,800	0	$5,800
3. Employee benefits – Project Director		
Calculated at 4.5% of salary		
$9,672 X .045 = $1,885	1,885	0
4. Employee benefits – Assistant Project Director		
Calculated at 25% of annual salary	1,450	0
$58,000 X .25 X .10 = $1,450		
Travel		
5. Data collection phase – for Project Director		
210 miles X 2 times/month X .485 rate=$2,444		
Dissemination phase estimate	2,444	0
For Project Director and Assistant Project Director		
(airfare, expenses for two to a conference)	2,000	0
Equipment, Materials and Supplies		
6. Equipment (purchase)	0	0
7. Materials and supplies (paper, ink, office supplies)	0	$300
8. Other (use of printing center, rooms, recording costs)	0	$500
Participant Costs		
9. Two focus groups with 8 participants @ $50 ea.=		
16 X $50 = $850		
Individual follow-up interviews	1,350	0
10 estimated @ $50 ea. = $500		
Total Direct Costs	$18,801	$6,600
Indirect Costs 8% (allowable by agency)	1,504	$528
Total Request	$20,305	$7,128
Total Cost of Project		$27,433

Budget Narrative

Project director -- Mary J. Schmocker, M.S. Ed. Ms. Schmocker will function as the

project director, dedicating 416 hours at $23.25/hr. over a one-year period, or about one day

per week. Schmocker has been an adjunct instructor at Northern Technical College in the

general education department for three years. She originally proposed this project as part of

her master's thesis. As the college's only off-site science distance educator, she is interested

in studying the impact of distance education on community college learners. The project

director will collect quantitative and qualitative data, write the final report and disseminate

findings.

Assistant project director – A full-time faculty member will serve as the assistant

project director, with a 10% time commitment. The assistant project director will supervise

the development of mathematical models for analysis of the data, assist in analyzing the final

data, and assist in the revision, publication and dissemination of the final project report.

Northern Technical College's fringe benefit rates for full time employees are 25% of

academic year salaries. The full package includes health, life, and disability insurance, a

social-security alternative plan, tuition reimbursement, and worker's compensation.

Funding is needed for the project director to travel to the main campus twice per

month to consult with the assistant project director, to collect data, conduct focus groups and

edit the project report. All other project work will be done via Internet, telephone and FAX.

An amount of $1,350 is requested to compensate 16 student participants at $50 each

to attend and participate in two focus groups to collect qualitative data on student effort and

persistence and satisfaction. The number of non-persistent students (estimated at 10) will be

individually interviewed and compensated at $50 each. It is the hope that stipends will motivate participation of students.

Several items listed in the project costs are not requested. They will be cost shared by the college as a sign of commitment to the project. The assistant project director's 10% cost share and associated fringe benefits will be contributed by the college. The use of office space, computers, printers and office materials will be contributed by the college. An estimated amount of $300 is included for these items. The use of the printing center and services of the electronic delivery staff and control room to record the focus groups will be contributed by the college. An estimated $500 is included for these items.

Evaluation Plan

The project outcomes will be evaluated by assessing the project goals and objectives within the timeline and budget. Records will be kept for all grant expenses. Focus group participants will be asked to evaluate their participation with a short survey at the end of the session. All participants will be asked to evaluate their participation with a short survey at the completion of the project (See Appendix C). Any publications or presentations about the grant project will be considered in the overall grant evaluation process. A final grant report will be submitted to any and all agencies upon completion of the grant project.

Project Evaluation Tool

The table and questions in Appendix D will be used by project directors to evaluate the overall project (See Appendix D).

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Appendix A: Cover Letter

June 4, 2008

Dr. Ram Singh
Program Officer, Postsecondary Education
Institute of Education Services
555 New Jersey Avenue, NW
Washington, DC   20208

Dear Mr. Singh,

Northern Technical College is pleased to submit a proposal to the Institute of Education Services requesting $20,305 in funding to support the project "Impact of Online Learning on Student Effort and Persistence of Technical College Students." The project will enhance the understanding of how educational technology might affect the retention of our students in community and technical college.

This study will address factors of persistence and student efforts of non-traditional and traditional students who have used online courses to further their education. The results will be used by NTC to enhance the delivery of education to all students, with the general goal of increasing student persistence and graduation rates.

Thank you for your consideration of this proposal. Please contact Ms. Mary Schmocker to answer any questions or provide further information.

Sincerely,

Dr. Lori A. Smith
President
Northern Technical College

Cc: Mary Schmocker, Project Director
    Phone: (715) 762-3699
    e-mail: schmocke@ntc.edu

Cc: Dr. Richard Wilkins, Assistant Project Director

Appendix B: Grant Foundation Proposal Request

The project was written with in alignment with the U.S. Department of Education

funding opportunity which follows. The Request For Application is a 96-page document, and

is not included in its entirety due to space limitations. A persistent link to the entire document

is included at the following address: http://www.ed.gov/about/offices/list/ies/programs.html.

A copy of the pertinent portions of the Request for Application is included below.

EDUCATION RESEARCH GRANTS

CFDA NUMBER: 84.305

RELEASE DATE: April 7, 2006

REQUEST FOR APPLICATIONS NUMBER: IES-NCER-2007-01

INSTITUTE OF EDUCATION SCIENCES
http://ies.ed.gov

LETTER OF INTENT RECEIPT DATE: **June 1, 2006 and**
September 14, 2006

APPLICATION TRANSMITTAL DEADLINE: **July 27, 2006 and**
November 16, 2006

**THIS REQUEST FOR APPLICATIONS CONTAINS THE FOLLOWING
INFORMATION:**

PART II GENERAL OVERVIEW

1. REQUEST FOR APPLICATIONS

In this announcement, the Institute of Education Sciences (Institute) describes the research
and postdoctoral research training programs that are funded through its National Center for
Education Research. Separate announcements are available on the Institute's website that
pertain to discretionary grant competitions funded through the Institute's National Center for
Special Education Research (http://ies.ed.gov/ncser) and National Center for Education
Statistics (http://nces.ed.gov/).

The Institute invites applications for research projects that will contribute to its education
research programs in Reading and Writing; Mathematics and Science Education; Teacher

Quality; Education Leadership; Education Policy, Finance, and Management; Interventions for Struggling Adolescent and Adult Readers; Cognition and Student Learning; High School Reform; and Postsecondary Education. In addition, the Institute invites applications to the Postdoctoral Research Training grant program. For the FY 2007 competition, the Institute will consider only applications that meet the requirements outlined below under the sections on Topics with July 27, 2006 Transmittal Deadline; Topics with November 16, 2006 Transmittal Deadline; and Requirements of the Proposed Research.

2. OVERVIEW OF THE INSTITUTE'S RESEARCH PROGRAMS

The Institute's over-arching priority is research that contributes to improved academic achievement for all students, and particularly for those whose education prospects are hindered by inadequate education services and conditions associated with poverty, race/ethnicity, limited English proficiency, disability, and family circumstance.

With academic achievement as the major priority, the Institute focuses on outcomes that differ by periods of education. In the infancy and preschool period, the outcomes of interest are those that enhance readiness for schooling, for example, language skills, and for infants and toddlers with disabilities, developmental outcomes. In kindergarten through 12th grade, the core academic outcomes of reading and writing (including reading and writing in the disciplines), mathematics, and science are emphasized, as well as the behaviors and social skills that support learning in school and successful transitions to employment, independent living, and post-secondary education. At the post-secondary level, the focus is on enrollment in and completion of programs that prepare students for successful careers and lives. The same outcomes are emphasized for students with disabilities across each of these periods, and include the functional outcomes that improve educational and transitional results. The acquisition of basic skills by adults with low levels of education is also a priority.

In conducting research on academic outcomes, the Institute concentrates on conditions within the control of the education system, with the aim of identifying, developing, and validating effective education programs, practices, policies, and approaches as well as understanding the factors that influence variation in their effectiveness such as implementation. Conditions that are of highest priority to the Institute are in the areas of curriculum, instruction, assessment (including the identification of students with disabilities), the quality of the education workforce, and the systems and policies that affect these conditions and their interrelationships (for example, accountability systems, delivery mechanisms including technology, and policies that support the ability of parents to improve educational results for their children through such means as choice of education services and provision of school-related learning opportunities in the home).

In this section, the Institute describes the overall framework for its research grant programs. Specific information on the research topics described in this announcement may be found in the sections pertaining to each education research program:
- Reading and Writing
- Interventions for Struggling Adolescent and Adult Readers and Writers
- Mathematics and Science Education
- Teacher Quality
- Education Policy, Finance, and Systems

- Education Leadership
- Cognition and Student Learning
- High School Reform
- Postsecondary Education
- Postdoctoral Research Training

The Institute addresses the educational needs of typically developing students through its Education Research programs and the needs of students with disabilities through its Special Education Research programs. Both the Education Research and the Special Education Research programs are organized by outcomes (e.g., reading, mathematics), type of education condition (e.g., curriculum and instruction; teacher quality; administration, systems, and policy), grade level, and research goals.

A. Outcomes
The Institute's research programs focus on improvement of the following education outcomes: (a) readiness for schooling (pre-reading, pre-writing, early mathematics and science knowledge and skills, and social development); (b) academic outcomes in reading, writing, mathematics, and science; (c) student behavior and social interactions within schools that affect the learning of academic content; (d) skills that support independent living for students with significant disabilities; and (e) educational attainment (high school graduation, enrollment in and completion of post-secondary education).

B. Conditions
In general, each of the Institute's research programs focuses on a particular type of condition (e.g., curriculum and instruction) that may affect one or more of the outcomes listed previously (e.g., reading). The Institute's research programs are listed below according to the primary condition that is the focus of the program.

a. *Curriculum and instruction.* Several of the Institute's programs focus on the development and evaluation of curricula and instructional approaches. These programs include: (a) Research on Reading and Writing; (b) Research on Mathematics and Science Education; (c) Research on Preschool Curriculum Evaluation; (d) Research on Social and Character Development; (e) Early Intervention, Early Childhood Special Education, and Assessment for Young Children with Disabilities; (f) Mathematics and Science Special Education Research; (g) Reading, Writing, and Language Development Special Education Research; (h) Secondary and Transition Services Special Education Research; (i) Serious Behavior Disorders Special Education Research; (j) Autism Spectrum Disorders; and (k) Response to Intervention.

b. *Quality of the Education Workforce.* A second condition that affects student learning and achievement is the quality of teachers and education leaders (e.g., principals, superintendents). The Institute funds research on how to improve teacher quality through its programs on (a) Research on Teacher Quality (b) Research on Education Leadership; and (c) Research Grants Program on the Quality of Teachers and Other Service Providers for Students with Disabilities.

c. *Administration, systems, and policy.* A third approach to improving student outcomes is to identify systemic changes in the ways in which schools and districts are led, organized,

managed, and operated that may be directly or indirectly linked to student outcomes. The Institute takes this approach in its programs on (a) Research on Education Policy, Finance, and Systems; (b) Education Research on High School Reform; (c) Special Education Research on Individualized Education Programs and Individualized Family Service Plans; and (d) National Assessment of Educational Progress (NAEP) Secondary Analysis Research Program.

Applicants should be aware that some of the Institute's programs cover multiple conditions. For example, the following programs cover multiple conditions: (a) Research on Cognition and Student Learning; (b) Research on High School Reform; and (c) Special Education Research on Individualized Education Programs and Individualized Family Service Plans. In addition, the NAEP Secondary Analysis program funds projects that cut across conditions (programs, practices, and policies) and types of students (regular education and special education students).

C. Grade Levels

The Institute's research programs also specify the ages or grade levels covered in the research program. The specific grades vary across research programs and within each research program, and grades may vary across the research goals. In general, the Institute supports research for (a) pre-kindergarten and kindergarten, (b) elementary school, (c) middle school, (d) high school, (e) post-secondary education, (f) vocational education, and (g) adult education. In addition, the Institute supports research on infants with disabilities.

D. Research Goals

The Institute has established five research goals for its research programs. Within each research program one or more of the goals may apply: (a) Goal One – identify existing programs, practices, and policies that may have an impact on student outcomes and the factors that may mediate or moderate the effects of these programs, practices, and policies; (b) Goal Two – develop programs, practices, and policies that are theoretically and empirically based and obtain preliminary (pilot) data on the relation (association) between implementation of the program, practice, or policy and the intended education outcomes; (c) Goal Three – establish the efficacy of fully developed programs, practices, or policies that either have evidence of a positive correlation between implementation of the intervention and education outcomes or are widely used but have not been rigorously evaluated; (d) Goal Four – provide evidence on the effectiveness of programs, practices, and policies implemented at scale; and (e) Goal Five – develop or validate data and measurement systems and tools.

For a list of the Institute's FY 2007 research grant topics – including research grant competitions through the Institute's National Center for Education Research, National Center for Special Education Research, and National Center for Education Statistics, please see Table 1 below. This list includes the Postdoctoral Research Training Fellowships in the Education Sciences, which is not a research grant program. Funding announcements for these competitions may be downloaded from the Institute's website at hppt://ies.ed.gov.

A copy of the portion of the document which pertains to this project, postsecondary education, is included below:

H. Postsecondary Education

The Institute intends for the Postsecondary Education research program to address five goals: (1) identifying policies, programs or practices that are associated with improving access to, persistence in, or completion of postsecondary education; (2) developing new programs, practices, or policies that are intended to improve access to, persistence in, or completion of, in postsecondary education; (3) evaluating the efficacy of programs, practices, or policies that are intended to improve access to, persistence in, or completion of postsecondary education; (4) providing evidence on the effectiveness of programs, practices, or policies for improving access to, persistence in, or completion of, postsecondary education that are implemented at scale; and (5) developing and validating assessments of cognitive (e.g., problem-solving, creativity, writing) social cognitive (e.g., communication and interpersonal skills) and non-cognitive (e.g., responsibility, initiative) skills that are indicators of readiness for the work environment and outcomes of postsecondary education.

a. *Background.* Improving participation and persistence in postsecondary education is a national concern, especially for high-risk students. According to the National Center for Education Statistics (2005), there are substantial gaps across income groups in the percentages of high school graduates who enrolled in college the fall semester after high school graduation: 53 percent of students from low-income families, 58 percent from middle income families, and 80 percent from high income families. Similarly, there are differences across racial and ethnic groups in the percentages of high school graduates who enroll in college right after high school graduation: 66 percent of White students, 58 percent of Black students, and 59 percent of Hispanic students. Moreover, there continue to be gaps across income groups in the proportions of students who graduate from college or persist in college five years after their initial enrollment: 61 percent from low income families, 65 percent from middle income families, and 71 percent from high income families (Horn & Berger, 2004). Across racial and ethnic groups, the five-year graduation or persistence rate also varies: 59 percent for American Indian students, 77 percent for Asian/Pacific Islander students, 55 percent for Black students, 60 percent for Hispanic students, and 66 percent for White students.

Through the Postsecondary Research program, the Institute supports research to improve postsecondary access and completion by identifying programs, practices, and policies that are effective for improving access to or persistence in postsecondary education. In recent years, a number of innovative programs for improving access to postsecondary education have been implemented. For example, the California State University system has partnered with California's Department of Education and State Board of Education to develop the Early Assessment Program for high school students. Through the Early Assessment Program, students in Grade 11 are assessed in English and mathematics to determine their readiness for college-level coursework. Students can use the results of the test to identify skills that they need to work on during their senior year in order to be better prepared for college. Little rigorous research exists to evaluate the impact such programs have on college enrollment and persistence.

The Institute encourages research on interventions to provide students and parents with information that may be related to students' choices regarding whether to go to college and where to go to college. According to the National Center for Education Statistics (Horn, Chen, & Chapman, 2003), both high school students and their parents are likely to markedly

overestimate the cost of tuition and fees for one year of college. Further, among households in the lowest income groups, parents are more likely to report that they are not able to estimate the cost of tuition and among those who do estimate the cost, they are less likely to be within 25 percent of the actual average tuition cost for the type of institution in their state that their student wanted to attend. A number of different types of programs (e.g., parent education, counselors, websites) address students' and parents' access to information about college and planning ahead for college. The Institute encourages research to evaluate the impact of such programs on student enrollment.

A number of states have implemented merit-based scholarship programs intended to provide students with an incentive to perform well in high school and attend college. For example, in 1993, Georgia introduced the Georgia Hope Scholarship program, which covers tuition, allowable mandatory fees, and a book allowance in public colleges to Georgia high school graduates with a B average or better or a voucher of equal value for students who choose to attend private college. Continued receipt of the scholarship is contingent upon satisfactory academic progress. The introduction of the program was associated with increases in four-year public and private college attendance among young adults residing in Georgia (Cornwell, Mustard, & Sridhar, 2005). The Institute is interested in supporting rigorous evaluations of such programs.

Institutions of higher education have implemented a variety of programs and practices to improve student retention (e.g., learning communities, on-line advising and career-planning services, freshman seminars, bridge programs, remedial or developmental programs for under-prepared students). Some programs focus on building the skills of under-prepared students (e.g., developmental mathematics courses); others are intended to foster social support for students and create an intellectual and social environment that will encourage students to remain and succeed at the institution (e.g., learning communities; programs that target specific student populations such as under-represented minority students or women in engineering majors). The Institute invites applications to examine the impact of such programs on student retention and graduation.

Many colleges and universities have implemented assessments of students' college-level reading, writing, mathematics, and critical thinking skills in order to provide feedback for the improvement of their general education curriculum or for accreditation and accountability purposes. For example, the *Measure of Academic Proficiency and Progress* by ETS and the *Collegiate Assessment of Academic Proficiency* by ACT are two commercially available assessments for institutions of higher education. The Institute is interested in applications to examine the validity and utility of such assessments. What do these types of assessments predict? What are their effects on institutions and on students? (Applications to develop and/or validate such instruments are appropriate for Goal Five under this topic. Individuals interested in examining the impact of such assessments on students or institutions, or the relation between implementation of the assessments and student/institutional outcomes should consider Goals One, Two, or Three.)

Finally, the high cost of attending college continues to be an important issue in postsecondary education. According to the College Board (2005a), in the 2005-2006 academic year, annual prices for undergraduate tuition, fees, room and board were estimated to be over $12,000 at four-year public colleges and $29,000 at four-year private colleges. For

the same year, undergraduates at 2-year public institutions on average spent approximately $2,200 a year for tuition and fees (College Board 2005a). The Institute invites applications to examine the complex relations between student financial aid programs (including federal, state, and private sources) and access and completion of postsecondary education. Because financial aid comes from multiple sources, we encourage research on the interactions of aid programs (e.g., how institutions package available sources of financial aid to eligible students) and their subsequent effects on access and completion of postsecondary education.

Policymakers and higher education administrators seek answers to practical questions regarding the relative impact – both costs and benefits – of alternative approaches to student financial aid on access to and completion of postsecondary education for a wide range of student groups (e.g. traditional, non-traditional, economically disadvantaged). Applicants might consider, for example, the impact of loan financing or loan forgiveness on college completion of at-risk students or whether extending grant aid eligibility to high school students would spur development of dual enrollment programs and increase college enrollment of at-risk students. As another example, investigators might compare the impact of student financial aid policies (e.g., alternative methods for calculating student financial aid eligibility, the use of merit vs. need based criteria for student financial aid) on access to and completion of postsecondary education. All 50 states offer tax-deferred plans for saving for college (529 plans) and some states have college saving plans that guarantee full-tuition payment in the future. Who is utilizing these programs; what is the impact of such programs on access to postsecondary education? The Institute also invites rigorous research on new and existing federal and state financial aid programs intending to encourage students from low-income families to prepare for, enroll in, and succeed in postsecondary education.

b. *Specific requirements for applications submitted to the Postsecondary topic.* The Institute is particularly interested in interventions for postsecondary students who are from low-income backgrounds and/or racial, ethnic, linguistic minority, and English learner groups that have underachieved academically, but will consider applications that focus on other populations if the results are likely to be applicable across socio-economic and racial, ethnic, and linguistic categories.

For the FY 2007 Postsecondary topic, applicants must submit under *either* Goal One *or* Goal Two *or* Goal Three *or* Goal Four *or* Goal Five. More details on the requirements for each goal are listed in the section on General Requirements of the Proposed Research. In this section, specific requirements that apply to applications to the Postsecondary topic are described.

(i)   Under Goal One applicants should seek to identify programs, practices, or policies and conditions that are associated with and are potential determinants of postsecondary enrollment, retention, and graduation. The understanding identified through Goal One awards is expected to be relevant to the design and implementation of future interventions. The typical methodology for Goal One will be the analysis of existing databases, including state or district longitudinal databases, using statistical approaches that allow for testing models of the relationships among variables in ways that strengthen hypotheses about paths of influence in postsecondary access and retention. Existing datasets can be supplemented with additional data if it would be advantageous to the research program. Goal One is limited to the examination of

programs, practices, or policies that are implemented at the postsecondary level or in high school where the intent is to increase access to postsecondary education or support the transition into postsecondary education.

(ii)   Goals Two through Four can be seen as a progression from development (Goal Two) to efficacy (Goal Three) to effectiveness at scale (Goal Four). Applicants proposing to develop new interventions should apply under Goal Two. Under Goal Three, the Institute will accept proposals to conduct efficacy or replication trials of interventions. Goal Four targets evaluations of the effectiveness of interventions implemented at scale.

Applicants proposing to develop or evaluate programs, practices, or policies under the Postsecondary Education Research program must target interventions implemented at the high school or postsecondary level that are intended to increase access to postsecondary education, support the transition from high school into postsecondary education, or improve the persistence of students in postsecondary education. Additional requirements for applications submitted under Goal Two or Goal Three or Goal Four are described in sub-sections of the General Requirements of the Proposed Research section.

(iii)   Under the Postsecondary topic, Goal Five addresses measures of learning at the postsecondary level.

(1)   *Purpose of Postsecondary Goal Five proposals.* Through Goal Five, the Institute intends to support the development and/or validation of measures used by institutions of higher education to assess what students have learned in college – including, for example, college-level proficiencies in reading, writing, critical thinking, and mathematics.

(2)   *Requirements of proposed assessments.* Applicants should provide a compelling rationale to support the development and validation of a new assessment or validation of an existing assessment. Reviewers will consider the strength of the theoretical foundation for the proposed assessment, the existing empirical evidence supporting the proposed assessment, and whether the proposed assessment duplicates existing assessments. Applicants should clearly describe the components of the assessment (e.g., specific knowledge and skills that the instrument is designed to tap). When applicants clearly describe the components of the assessment, reviewers are better able to evaluate the relation between the theoretical and empirical foundation for the assessment and the assessment itself (e.g., does the proposed assessment capture critical skills?). By clearly describing the components of the assessment, reviewers are better able to judge whether the proposed assessment will meet the needs for which it is intended. Applicants proposing to examine the validity and utility of existing assessments should document the current use of the assessment.

When proposing assessments, researchers should keep in mind the pragmatic constraints (e.g., costs, ease of administration) that determine whether the instrument is a viable option for use by colleges or other education entities.

By describing the theoretical and empirical support for the proposed assessment, the practical utility of the assessment, and the components of the assessment, applicants are addressing aspects of the significance of their proposal.

(3) *Methodological requirements.* Applicants should detail the proposed procedures for developing the assessment instrument; selecting items to be used in the assessment; assessing difficulty of selected items; and obtaining representative responses to items. Applicants should clearly describe the research plans for determining the validity and reliability of the instrument. Applicants should also examine the predictive validity of assessments. Applicants should describe the characteristics and size of samples to be used in each study, procedures for collecting data, measures to be used, and data analytic strategies.

(4) *Personnel and resources.* Competitive applicants will have research teams that collectively demonstrate expertise in (a) the research program including the content areas, research design, and assessment, (b) implementation of, and analysis of results from, the research design that will be employed, and (c) working with teachers, schools, districts or other education delivery settings in which the proposed assessment might be used. Competitive applicants will have access to institutional resources that adequately support research activities and access to schools in which to conduct the research.

Appendix C: Project Tools

Project Tool 1: The Community College Student Questionnaire

The Community College Student Questionnaire

1. Did you begin college at this college or elsewhere?   Started here   Started elsewhere

2. Thinking about this current academic term, how would you characterize your enrollment at
   this college?   Full-time   Part time

3. Have you taken this survey in another class this term?   Yes   No

4. In your experience at this college during the current school year, about how often have
   you done each of the following?
   a. Asked questions in class or contributed to class discussions
   b. Made a class presentations
   c. Prepared two or more drafts of a paper or assignment before turning it in
   d. Worked on a paper or project that required integrating ideas or information from
      various sources
   e. Come to class without completing readings or assignments
   f. Worked with other students on projects during class
   q. Worked with classmates outside of class to prepare class assignments
   h. Tutored or taught other students (paid or voluntary)
   i. Participated in a community-based project as a part of a regular course
   j. Used the Internet or instant messaging to work on an assignment
   k. Used e-mail to communicate with an instructor
   l. Discussed grades or assignments with an instructor
   m. Talked about career plans with an instructor or advisor
   n. Discussed ideas from your readings or classes with instructors outside of class
   o. Received prompt feedback (written or oral) from instructors on your performance
   p. Worked harder than you thought you could to meet an instructor's standards or
      expectations
   q. Worked with instructors on activities other than coursework
   r. Discussed ideas from your readings or classes with others outside of class (students,
      family members, co-workers, etc.)
   s. Had serious conversations with students of a different race or ethnicity other than
      your own
   t. Had serious conversations with students who differ from you in terms of their
      religious beliefs, political opinions, or personal values

   Answer choices: Very often   Often   Sometimes   Never

5. During the current school year, to what extent has your coursework at this college,
   emphasized the following mental activities?

a. Memorizing facts, ideas, or methods from your courses and readings so you can repeat them in pretty much the same form.
b. Analyzing the basic elements of an idea, experience, or theory.
c. Synthesizing and organizing ideas, information, or experiences in new ways
d. Making judgments about the value or soundness of information, arguments, or methods.
e. Applying theories or concepts to practical problems or in new situations
f. Using information you have read or heard to perform a new skill

Answer choices: Very much   Quite a bit   Some   Very little

6. During the current school year, about how much reading and writing have you done at this college?
   a. Number of assigned textbooks, manuals, books, or book-length packs of course readings:
   b. Number of books read on your own (not assigned) for personal enjoyment or academic enrichment
   c. Number of written papers or reports of any length

Answers choices: None   1 to 4   5 to 10   11 to 20   More than 20

7. Mark the box that best represents the extent to which your examinations during the current school year have challenged you to do your best work at this college.

Answers: Extremely challenging --- Extremely easy.
                    7   6   5   4   3   2   1

8. Which of the following have you done, are you doing, or do you plan to do while attending this college?
   a. Internship, field experiences, co-op experience or clinical assignment
   b. English as a second language course
   c. Developmental/remedial reading course d. Developmental/remedial writing course
   e. Developmental/remedial math course
   f. Study skills course
   q. Honors course
   h. College orientation program or course
   i. Organized learning communities (linked courses/study groups led by faculty or counselors)

Answer choices: I have done   I plan to do   I have not done, nor plan to do

9. To what extent does this college emphasize each of the following?
   a. Encouraging you to spend significant amounts of time studying
   b. Providing the support you need to help you succeed at this college
   c. Encouraging contact among students from different economic, social, and racial or ethnic backgrounds
   d. Helping you cope with your non-academic responsibilities (work, family, etc.)
   e. Providing the support you need to thrive socially

f. Providing the financial support you need to afford your education

q. Using computers in academic work

Answer choices: Very much   Quite a bit   Some   Very Little

10. About how many hours do you spend in a typical 7-day week doing each of the
     following?
     a. Preparing for class {studying, reading, writing, rehearsing or other activities related
          to your program)
     b. Working for pay
     c. Participating in college-sponsored activities (organizations, campus publications,
          student government, intercollegiate or intramural sports, etc..
     d. Providing care for dependents living with your (parents, children, spouse, etc.
     e. Commuting to and from classes

Answer choices: None   1 to 5   6 to 10   11 to 20   21 to 30
         more than 30.

11. Mark the box that best represents the quality of your relationships with people at this
college.

Your relationship with other students:

Friendly, supportive, sense of belonging---Unfriendly,
                                                   unsupportive, sense of alienation
          1   2   3   4   5   6   7

Your relationship with instructors:

Available, helpful, sympathetic--Unavailable, unhelpful,
                                                   unsympathetic
          1   2   3   4   5   6   7

Your relationship with administrative personnel and offices:

Helpful, considerate, flexible---Unhelpful, inconsiderate,
                                                   rigid
          1   2   2   4   5   6   7

12. To what extent has YOUR EXPERIENCE AT THIS COLLEGE contributed to your
     knowledge, skills, and personal development in the following areas?
     a. Acquiring a broad general education
     b. Acquiring job or work-related knowledge and skills
     c. Writing clearly and effectively
     d. Speaking clearly and effectively
     e. Thinking critically and analytically
     f. Solving numerical problems

g. Using computing and information technology

h. Working effectively with others

i. Learning effectively on your own

j. Understanding yourself

k. Understanding people of other racial or ethnic backgrounds

f. Developing a personal code of values and ethics

m. Contributing to the welfare of your community

n. Developing clearer career goals

o. Gaining information about career opportunities

Answer choices: Very much   Quite a bit   Some   Very little

13. This section has three parts. Please answer all three sections, indicating (1) HOW OFTEN you use the following services, (2) HOW IMPORTANT the services are to you, and (3) HOW SATISFIED you are with the services AT THIS COLLEGE.

a. Academic advising/planning

b. Career counseling

c. Job placement assistance

d. Peer or other tutoring

e. Skill labs (writing, math, etc.)

f. Child care

q. Financial aid advising

h. Computer lab

i. Student organizations

j. Transfer credit assistance

k. Services for people with disabilities

Answer choices:

(1) FREQUENCY OF USE	Often	Sometimes	Never	
(2) SATISFACTION	Very	Somewhat	Not at all	N/A
(3)IMPORTANCE	Very	Somewhat	Not at all	

14 How likely is it that the following issues would cause you to withdraw from class or from this college? (Please respond to each item)

a. Working full-time

b. Caring for dependents

c. Academically unprepared d. Lack of finances

e. Transfer to a 4-year college or university

Answer choices: Very likely   Likely   Somewhat Likely   Not likely

15. How supportive are your friends of your attending this college?
        Extremely   Quite a bit   Somewhat   Not very

16. How supportive is your immediate family of your attending this college?
        Extremely   Quite a bit   Somewhat   Not very

17. Indicate which of the following are your reasons/goals for attending this college?

      a. Complete a certificate program
      b. Obtain an associate degree
      c. Transfer to a 4-year college or university
      d. Obtain or update job-related skills
      e. Self-improvement/Personal Enjoyment
      f. Change careers

Answer choices: Primary Goal   Secondary Goal   Not a goal

18. Indicate which of the following are sources you use to pay your tuition at this college?
      (Please respond to each item)
      a. My own income/savings
      b. Parent or spouse/significant other's income/savings
      c. Employer contributions
      d. Grants & scholarships
      e. Student loans (bank, etc.)
      f. Public assistance

Answer choices: Major source   Minor source   Not a source

19 Since high school, which of the following types of schools have you attended other than
      the one you are now attending? (Please mark all that apply)
      Proprietary (private) school or training program
      Public vocational-technical school
      Another community or technical college
      4-year college or university
      None

20. When do you plan to take classes at this college again?
      I will accomplish my goal(s) during this term and will not be resuming
      I have no current plan to return
      Within the next 12 months
      Uncertain

21. At this college, in what range is your overall college grade average?
      A   A-to B+   B- to C+   C   C- or lower
      Do not have a GPA at this school   Pass/fail classes only

22. When do you most frequently take classes at this college? (Mark one only)
      Day classes (morning or afternoon)
      Evening classes
      Weekend classes

23. How many TOTAL credit hours have you earned at this college, not counting the courses you are currently taking this term?
      None   1-14 credits   15-29 credits   30-44 credits   45-60 credits over 60 credits

24. At what other types of institutions are you taking classes this term? (please mark all that apply)
      None
      High school
      Vocational/technical school
      Another community or technical college
      4-year college/university
      Other

25. How many classes are you presently taking at OTHER institutions?
      None   1 class   2 classes   3 classes   4 classes or more

26. Would you recommend this college to a friend or family member?   Yes   No

27. How would you evaluate your entire educational experience at this college?
      Excellent   Good   Fair   Poor

28. Do you have children who live with you?   Yes   No

29. Mark your age group.
      Under 18   20 to 21   22 to 24   25 to 29   30 to 39   40 to 49
      50 to 64   65+

30. Your sex: Male   Female

31. Are you married?   Yes   No

32. Is English your native (first) language?   Yes   No

33. Are you an international student or foreign student?   Yes   No

34. What is your racial identification? (Mark all that apply.)
      American Indian or other native American
      Asian, Asian American or Pacific Islander
      Native Hawaiian
      Black or African American
      White, Non-Hispanic
      Hispanic, Latino, Spanish
      Other

35. What is the highest academic credential you have earned?
      None
      High School diploma of GED

Vocational/technical certificate
Associate Degree
Bachelor's Degree
Master's/doctoral/professional degree

36. What is the highest level of education obtained by your father and mother?
    a. Not a high school graduate
    b. High school diploma or GED
    c. Some college, did not complete degree
    d. Associate degree
    e. Bachelor's degree
    f. Master's degree/1st professional
    g. Doctorate degree
    h. Unknown

37. Using the list provided, please fill in the bubbles that correspond to the code indicating your program or major. Using the first column, indicate the first number of the program code, using the second column, indicate the second number in the program code.

38. Please provide your student identification number by filling the corresponding bubbles. For example, in the first column, indicate the second number in the program code. (CCSE 2003-2008 Used by permission.)

Additional questions for this study:

39. Are you taking any totally online courses this semester?   Yes   No

40. How many total credits are you taking this semester? _____

41. How many credits are you taking totally online? _____

43. If you are a second-year or greater student, how many total credits did you take before this semester online? _____ Face-to-face _____ ?

Questions that pertain to student effort: 4c, 4d, 4e, 6b, 10a, 13d, 13e, 13h (CCSE 2003-2008).

Project Tool 2: The Focus Group Tool

Student Focus Group Outline and Discussion Protocol

Focus Group Outline and Timeline
        Overview
        Sign consent forms and human subjects forms
        Introduce Participants
        Student Profile Sheet
        Discussion
        Summary
        Thanks and give stipends
        Participant survey

Approximate Total Time   75-90 minutes

Outcomes for the Focus Group:
        To understand why you attend Northern Technical College.
        To understand what causes students to persist
        To understand how involved students are in their own learning.
        To understand what the college does well to help students stay in school and achieve their goals
        To understand what impact online learning has on student effort and persistence.

The Focus Group Discussion

1. Introduction by moderator
        Explain purpose of focus group.
        Explain desired outcomes and how information gathered will be used.
        Explain and sign consent/human subjects' forms.
        Explain that the session will be videotaped for analysis.

2. Describe moderator role:
        To ask questions and keep the group on track
        Explain that we'll be moving through the material fairly quickly, even though people might have more to say about a topic.

3. Describe participants' role:
        Share experiences and opinions, both positive and negative.
        No right or wrong answers
        Everyone to participate in discussion and fill out response forms as requested

4. Logistics
        90 minutes maximum
        Arrangements for water and restroom break
        Other items as needed.

5. Ground rules:

   One person speaks at a time; no side conversations.

   No one person dominates; everyone will have a chance to be heard.

   There are no right or wrong answers; the discussion is about your experiences at this college.

6. Video taping.

   For the purposes of writing a report to share with people at Northern Technical College and for an educational research paper.

   Introduce electronic delivery staff.

   No names will be used in the report.

   Thanks from the college for taking time to share your insights (CCSE 2003-2008).

Project Tool 3: Participant Survey

PARTICIPANT SURVEY

1. I understand that I was chosen at random to participate in this study.   YES   NO

2. I received a satisfactory explanation of the purpose of this study.   YES   NO

3. The survey or focus group questions were easily understandable.   YES   NO

4. The amount of time that I spent participating in the survey or
   focus group was reasonable.   YES   NO

5. I felt that my participation in this study was appreciated.   YES   NO

6. Please add any comments below:

If you would like a copy of the final study report, please leave your contact information with the researcher on a separate sheet.

Thank you for your comments and for participating in this study.

Appendix D: Final Project Evaluation Tool

Objective	Timeline Goal	Date of Completion	Completed Within Timeframe (Y or N)	Completed Within Budget (Y or N)
Obtain permission to study through IRB	August			
Select study participants	September			
Complete quantitative surveys	October			
Analyze quantitative data. Choose focus group participants	November			
Conduct Focus Group 1	December			
Identify non-persistent students and interview	December			
Conduct Focus Group 2	January			
Analyze qualitative data from focus groups	Feb. - March			
Identify additional non-persistent students and interview	April			
Analyze qualitative data from individual interviews	May			
Complete written report	June			
Submit report paper to refereed journals. Apply to present paper at conference(s)	July			
Present paper at fall staff in-service meeting	September			
Submit final grant report to agency(ies)	After publication and/or presentation			

Open ended questions:

1. What were the problems that were encountered?

2. How did you/or did you not overcome these problems?

3. What issues were raised as a result of the study? (Examples: student, institutional, process-related, research, etc.)

4. What would you do differently next time?