

One-to-One Laptop Pilot

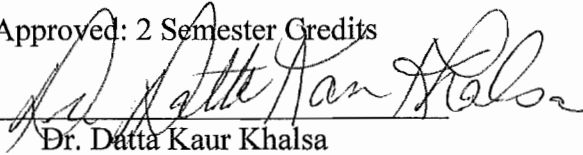
A Grant Proposal

by

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ABSTRACT

This grant addresses the need for students to use technology in their everyday learning through a laptop initiative. The requirements of the Hudson School District HSD 2025 plan are to prepare students for the 21st Century through the expansion of technology and training for students and faculty. Limited access to technology at Hudson Middle School confines the effectiveness of curriculum and instruction in the 8th grade business class; thereby restricting student access to technology and real world learning. This grant provides learners with the technology and opportunity to prepare for the challenges of the 21st Century learner.

The goal is to enrich the business curriculum by enabling learners the opportunity to increase learning and understanding through a laptop initiative that incorporates an E-Learning approach to curriculum delivery and participation. Learners will use the Internet and technology to increase their confidence, independence, and productivity as learners. Student and parent feedback data will be gathered through pre and post surveys, as well as

assessments and observations. Findings from this study will be disseminated within the Hudson School District, community of Hudson, and professional business organizations such as the Wisconsin Business Education Association. In addition, the funding organization, the Educational Foundation of Hudson, will receive additional study results after the first year of implementation.

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TABLE OF CONTENTS

ABSTRACT	ii
<i>Statement of the Problem</i>	1
<i>Purpose of the Grant Proposal</i>	3
<i>Assumptions</i>	3
<i>Definition of Terms</i>	3
<i>Methodology</i>	5
Chapter II: Literature Review.....	5
<i>Introduction of Research Supported Problem/Need</i>	5
<i>Student Benefits</i>	6
<i>Educator Benefits</i>	9
<i>Observations to Consider When Implementing</i>	11
<i>Potential Barriers to Implementation</i>	12
<i>Summary</i>	13
Chapter III: Project Goals and Objectives.....	14
<i>Goal 1: Increased Knowledge of E-learning and laptop initiative</i>	16
<i>Goal 2: Increased Student Learning of Content Area</i>	17
Chapter IV: Project Methodology	19
<i>Action Plan and Timeline</i>	19
<i>Table 1: Action Plan and Timeline</i>	20
<i>Evaluation Plan and Tools</i>	23
<i>Dissemination Plan</i>	23

<i>Budget</i>	24
<i>Table 2: Budget</i>	25
References.....	27
Appendix A: Cover Letter	30
Appendix B: Grant Application Format	31
Appendix C: Grant Application Cover Sheet.....	33
Appendix D: Student Survey Questionnaire	34
Appendix E: Parent Survey Questionnaire.....	35

Chapter I: Introduction

Statement of the Problem

Wireless networks and laptop initiatives have been launched in school districts across the country, representing one of the fastest growing technologies in education (Warschauer, 2005). The benefits of a laptop initiative include re-energizing teachers, curriculum and learners. The enhanced educational experience for students increases confidence, capability with technology, and preparation of skills needed for the 21st Century. Grant, Ross, Wang, & Potter (2005) point out students from all levels benefit from using laptops.

Manchester, Muir, and Moulton (2004) state that there are several benefits that Maine schools have seen throughout their statewide laptop initiative. The focus is not on learning to use technology, but rather using technology to learn. The teacher and student are responsible for taking charge of their own learning. Technology allows the opportunity to rethink how learning and instruction is done in schools. Manchester et al. (2004) go on to convey that students must collaborate with teachers to understand learning targets and provide evidence of their own learning and assessment.

This proposal supports the expansion of technology and technology training for students and faculty in the business education program at Hudson Middle School while supporting the mission of the Hudson Assistive Technology Committee. The mission of the committee is to promote the appropriate use of technology to assist all students and staff so that they can become more independent, self-confident, and productive learners. This commitment to the use of technology is shared by school administration, teachers, parents, students, and business community; they all have a stake in student understanding and use of technology. Unfortunately, building space and availability of computers is

limited within the Hudson Middle School. The computer applications class and technology class are the only classrooms with their own computer technology. The other student population of 1,250 is required to share one computer lab of 30 computers and 60 mobile laptop computers. The future addition of computer labs is doubtful given the limited classroom space in the building and the mobile laptop computers are unreliable and in need of repair. These constraints limit the access to technology and participation in business related curriculum applications. The business education class requires the consistent use of computers to provide students with the opportunity to participate in online simulations and applications.

The daily discovery of economic and business trends, concepts, and real world examples through the use of E-learning would assist students to become more independent, self-confident, and productive learners. The addition of laptop computers for the business education classroom would not only enhance student learning, it would reduce congestion of the existing computer lab and laptops. The limited access to technology causes a roadblock to student technological opportunities and preparation for the 21st Century. It is difficult to adequately perform and complete projects given the limited access to computers and technology. Teachers can only sign up for computers every other week and there is a limit of three days for each use; causing high demand for computers and competition over days and times. The high demand limits flexibility in scheduling and completing lessons. One possible solution is to supply business students with their own laptop computers; allowing flexibility of instruction and curriculum. This proposal supports the expansion of technology and technology training for students and faculty in the business education program at Hudson Middle School.

Purpose of the Grant Proposal

The purpose of this proposal is to obtain the financial resources to implement a laptop initiative within the eighth grade business education program at Hudson Middle School. The benefits of implementing this plan will provide students and teachers with the skills necessary to meet the targets of Hudson School District's HSD 2025 plan. These benefits include increased student achievement, flexibility in learning, and real world application of curriculum. In addition, educators will be able to enhance instruction and learning that will enable students to incorporate their learning and skills into other educational areas and classes; preparing them as lifelong learners.

Assumptions

It is assumed that a laptop initiative for eighth grade business students will provide a more relevant and student centered approach to learning. Other assumptions include increased student involvement in curriculum, flexibility, and ownership in the learning process. It is also assumed that this initiative will enhance student learning in other academic areas.

Definition of Terms

The following terms are of importance in this grant proposal because they define the type of instruction and learning that takes place in an online environment. They also explain concepts and strategies for the Hudson School District and business education program.

Computers on Wheels (COWs) "These carts of 5 to 25 mobile computers are typically wireless and can be wheeled from classroom to classroom as needed. Schools have used this model to promote collaboration among students and aid in transitioning among groups of students and in classroom settings (eg, Gwaltney, 2003). In addition,

these mobile carts have also offered an alternative to committing instructional space to computer laboratories” (Grant, Ross, Weiping & Potter, 2005, p. 1018).

E-Learning “E-Learning is not a single strand but is multifaceted, covering a wide range of approaches and methods. There are many significant differences between using digital photography to capture evidence of a vocational skill, using word processing as part of developing language skills, interacting with a simulation, posting messages to a blog or delivering an entire learning program online. Nevertheless, all can be called e-learning and all can have real benefits to the learner. They need to be judged in the context in which they are being applied. E-learning is integrated with more traditional methods” (Clarke, 2007, p. 14).

HSD 2025 “The vision of the Hudson School District is for successful learning for all through a culture of excellence in challenging academics, critical thinking, purposeful collaboration, applied innovation, and global stewardship. All students and staff can learn and perform at high levels” (Hudson School District HSD Team, 2008).

One to One Laptop Initiative “A core set of characteristics shared by a wide number of initiatives, however, coupled with the continued if not growing interest among policymakers and educational leaders in one-to-one initiatives, makes it both possible and important to conduct a review of what is known about their implementation and effectiveness. For purposes of this review, we have chosen three core features common to a wide variety of initiatives as defining characteristics of one-to-one computing in the classroom: (1) providing students with use of portable laptop computers loaded with contemporary productivity software (e.g., word processing tools, spreadsheet tools, etc.), (2) enabling students to access the Internet through schools’ wireless networks, and (3) a

focus on using laptops to help complete academic tasks such as homework assignments, tests, and presentations” (Penuel, 2006, pp. 330-331).

Methodology

Chapter two of this proposal will outline current research and literature related to the implementation of a laptop initiative and E-learning curriculum, as well as provide the benefits to learners and educators. This chapter will also address potential barriers to implementing a laptop initiative. Chapter three will discuss the grant project’s goal of implementing a laptop initiative in the Hudson Middle School’s eighth grade business program. Chapter four will layout the implementation of this grant. This will include a timeline, budget, and dissemination plan.

Chapter II: Literature Review

Introduction of Research Supported Problem/Need

Grant et al. (2005) reports that laptop initiatives allow for increased student achievement and learning, teacher technological growth, and increased community. Laptops enable the opportunity to meet the learner where they are. The Internet and use of technology allows students the chance to engage in learning using a medium that is familiar. Grant et al. (2005) studied the impact that computers had on novice and experienced fifth grade computer users. Both types of learners benefited from the use of a laptop initiative. Although technology wasn’t observed as a high means to acquiring higher level thinking strategies, it did serve as a learning tool that enabled students to participate in project based learning that required student collaboration. Technology allowed for independent inquiry and research making students producers of knowledge. Student centered curriculum and use of technology invigorated teachers and increased the

classroom experience. Educators also demonstrated more confidence and capability with technology.

Educators are also able to develop skills and learning in the area of technology. Penuel (2006) adds that integrating and using technology in curriculum increases with teacher training and development. Teachers can bring newly developed concepts and strategies to the classroom; sharing with students. Professional growth enhances curriculum development, instruction, and the potential for student learning. Donavon, Hartley, & Strudler (2007) found that a majority of teachers have two basic concerns when implementing technology in the classroom. The first concern is with how the implementation of technology will impact them personally, and the second, to a lesser degree, is how to best use laptops to meet learner needs. The benefits, considerations, and barriers to a laptop initiative need to be identified.

Student Benefits

Purnell (2005) stresses that E-Learning opens doors for students by providing a vast network of real information. The use of the Internet allows students the ability to research and use information that is up-to-date and relevant. Hall, M. & Elliott, K. (2003) state that instructors can create real time class environments by accessing the Internet and investigating concepts online. Using current events makes the material and learning pertinent to the world around them. Real time interaction increases student understanding of how world events impact their lives and future. Using online simulations not only allow for hands on learning, but also help to make the connection between curriculum and reality. Burns (2006) states that that computer and Internet flexibility is resulting in more schools trading in their texts for wireless technology. Materials remain current and

are flexible to meet the individual needs of the learner while keeping them engaged in the process.

Increased engagement and authentic meaning, where students use real world projects to make personal connections, results in higher levels of retention (Clark, 2002). Students are pushed to participate in the learning rather than just sitting in the back of the class. The self paced environment is beneficial for all types of learners because it allows students to take responsibility for their own learning while also moving at their own speed. Learning is enhanced when students are internally driven rather than receiving external motivators. The use of technology and E-Learning allows learning to be a personal experience that is student centered, with the teacher serving as a facilitator. The use of laptops allows students the ability to take their work with them wherever inspiration strikes. This opens the possibility of learning in areas outside of the normal classroom setting.

Fitzpatrick (2007) illustrates that technology provides flexibility in learning through an interactive and continuous learning culture. The process of using E-Learning enables the opportunity for increased learning and growth by students. Penuel (2006) adds that journaling and the use of long-term projects increase with the use of laptop programs. These activities, such as blogs, allow for reflection and hands on learning that causes students to increase the possibility of understanding and retention. Project based learning allows the chance for higher level learning and application. Clark (2002) points out that the effectiveness of E-Learning has to do with the interactive activity. It provides students with opportunities to increase cooperative and collaborative skills through the use of interactive discussion threads, wikis, Google Docs, and multimedia. The use of laptops and online learning removes students from the confinement of walls and

introduces the new idea of shared knowledge on the web. The concept of life-long learning is supported by the online format.

Warschauer (2005) points out that the most obvious benefit of online is to prepare students for the challenges that they will face in the 21st century. These challenges include a new way to think, analyze, and learn. Students will take more ownership in the process by spending more time creating a quality product that requires a variety of learning activities. E-learning has a positive effect in the classroom learning by preparing students for future challenges and change. Online tools such as blogs, podcasts, and social networking when completing assignments and curriculum work enable the opportunity to try new things and personalize learning and applications to student interests, thus connecting with where students are. The process helps students to see learning through everyday events and technological applications; laying the foundation for students when they enter the business world. The use of laptops in an educational setting enables students to acquire familiarity and skills that are transferable to the world of work (Hall & Elliott, 2003). Furthermore, Pantazis (2002) identifies that E-Learning will continue to increase opportunities for developing skills necessary for good jobs and the training methods that business is using.

E-learning also increases the academic achievement of students across the board (Warschauer, 2005). Laptop initiatives have increased student writing skills through composing, revising, and receiving needed feedback from teachers. In addition, a personal laptop causes the writing process to be more convenient and allows students to the opportunity to get material from a variety of sources, providing more in-depth student research. Students come to class prepared and ready for learning because information and materials are at their fingertips. These organizational benefits can be used in all academic

areas; moreover applications and concepts learned in one academic area can be transferred to another. Applying existing knowledge toward new learning is evident in the process and provides learners new opportunities for learning and growth.

The addition of laptop computers to the eighth grade business class will provide students with the chance to apply hands on learning; increasing participation and understanding. Supplying students with laptops allows each student to actively contribute in the learning. Burns (2006) shows that the use of E-learning assists students to become more independent, self-confident, and productive learners. These are all qualities that meet the requirements of Hudson School District's HSD 2025 initiative that promotes the use of technology, economic understanding, and global awareness. Information and technology changes at a dynamic rate requiring learners to adapt and acquire knowledge that keeps pace with this change. Online learning prepares learners with the skills needed to keep up with these changes and adapting to lifelong changes in learning and applications. Clarke (2007) sees the future of E-learning as providing learners with opportunities that fit their needs, speed, and preferences. Being successful in an online environment requires learners to possess time management, acceptance of responsibility, and technical skills. All of these are representative of lifelong skills needed in the 21st Century.

Educator Benefits

In addition to student benefits, E-learning provides educators with the ability to enhance instruction and learning. Warschauer (2005) adds that laptops foster teacher collaboration across subject areas. Technology eases the sharing and planning of lessons and projects. According to O'Hanlon (2007), the use of technology increases engagement between students and teachers, parental involvement, and greater communication

between school and home. These are all positive benefits that educators are looking to improve in and out of the classroom. The sharing and collaboration allows for educators to share ideas and work toward the common solution of problems and challenges.

Collaboration can also lead to new ideas and the sharing of information and expertise in the use of technology. Burns & Polman (2006) state that the sharing of information is not limited to just within a school; educators are willing to share with others outside of their building or district. Connecting curriculum and applications has a positive benefit on instruction and student learning.

Success of a laptop initiative comes down to the quality of professional and curriculum development (Wambach, 2006). Lessons and curriculum created by several teachers proves to be more polished and powerful than courses created in isolation. Collaboration allows for a better understanding of students and career needs. O'Hanlon (2007) goes on to mention other positive effects of using a laptop initiative. Teaching becomes student centered and lessons are taught in a team and project based environment. O'Hanlon (2007) adds that student interest increases; resulting in a higher level of student motivation and learning. Technology offers flexibility and the ability to use real life, relevant examples and concepts. This generation of learners is different and it is essential, as previously mentioned, that educators meet learners where they are. E-learning connects with learners and increases the potential success of curriculum and student learning. Penuel (2006) indicates that teachers are adopting the idea of more student-centered experiences that involve E-Learning than teacher-centered. Literature reports the positive outcomes of laptop initiatives; however consideration should be given to the impact this change will have on educators. Educators come from a variety of technological backgrounds and beliefs on curriculum implementation. As with any

change, there will be resistance and it takes time to adopt, adapt, and implement new ideas and processes. The potential barriers to a laptop program should be considered since there are challenges to the implementation and continued practice of a laptop endeavor.

Observations to Consider When Implementing

Hall & Elliott (2003) found some interesting observations from a study on implementing a laptop program. Students benefit when allowed to experiment with technology and applications; enabling higher level students the chance to guide other students. Despite the benefits of online learning, textbooks still play an important part in learning and not every topic requires laptop use. It is important to remember that laptops change the way information is taught and not the subject matter. Educators tend to be more comfortable with a laptop initiative when reminded that it is compatible with and enhances a variety of teaching styles.

The implementation of the program requires visibility and input from everyone involved. Just like any other goal or initiative, success comes from shareholders taking the proposal seriously and leaders sharing their passion and support with other shareholders. The goal for implementation involves being reasonable and realistic; considering the paradigm shift that this type of initiative involves. The study done by Donavon et al. (2007) concluded that educators are often concerned about the amount of time to utilize the full potential of the technology. The largest areas of concern for teachers concerned time, planning, and instructional practices.

Evaluation of student success requires the use of surveys and observation in an online environment. Villaverde, Godoy, & Amandi (2006) point out students learn in different ways; therefore, it is difficult to make an accurate assessment of student learning

styles and success strictly through survey methods. The point is made that questionnaires are time consuming and an unreliable means of acquiring learning style feedback. Past research has shown that student attitudes toward E-Learning can be directly related to socio-economic status, social environment, and computer skills. The research done by Romi, Hansenson, & Hansenson (2002) contradicts previous studies by showing that E-Learning aids in comprehension and actually appeals to dropouts. Literature research shows that introducing laptops is valuable to education; however there are obstacles to this type of endeavor.

Potential Barriers to Implementation

Although E-learning seems to be the wave of the future, there are some potential barriers to the implementation of such an initiative. Stevens (2007) indicates these barriers to be political, professional, and fiscal capital. As with any other program or initiative in education, there are many stakeholders in the process. Citizens are concerned with taxes, administrators face cost-benefit analysis, and educators should feel comfortable with technology and change. Stevens (2007) mentions three important concepts to consider when implementing a program. These three tasks include going slowly, asking the right questions, and making sure everything is in place before proceeding.

Planning is critical to the success of any program and implementing a laptop initiative impacts many stakeholders and philosophies in the educational process. Including stakeholders from many areas of education offers insight and oversight, ensuring that the right questions are being asked. The first thing is to identify if the infrastructure is in place to do what you want to do. If using a wireless laptop initiative, the school needs to have the availability and capacity to handle this type of endeavor.

Stevens (2007) states the importance of school districts having a vision for the future use of technology; making plans and purchasing equipment that will meet future goals. Hardware, software, and infrastructure must be able to handle the daily demands of curriculum and student use. Not being able to fully implement an online program also defeats the purpose and full capabilities of a laptop and E-learning initiative; losing credibility with educators, students, and parents (Stevens, 2007). The future obligations of being able to afford the long-term considerations such as software and hardware upgrades, maintenance, professional development, and technical support ought to be taken into account. In addition, enforcing proper use of policies and procedures requires initial training and continual monitoring. Commitment to a laptop initiative requires time and money, so it is imperative that all stakeholders buy into the endeavor. Including all members in the process demonstrates good leadership and potential for success.

Summary

A laptop initiative encourages further discovery and learning, rather than just the capability to complete an assignment. Student learning is enhanced through real world applications and real time learning. Online entrepreneurship, business, and stock simulations enhance learning by providing students with the chance to participate in a variety of online applications that make connections to global circumstances and technological expectations for the 21st Century. Students' participation in online applications require keeping up with current events and applications, as well as, interacting with other students through discussion and application. Learners aren't limited to the classroom; they can take their learning with them and take action when inspiration strikes. For example, students can make investment decisions and adjust to market conditions throughout the day rather than just during the class period. Students would be

able to adapt to the changing market, events, and speculation; allowing them to sell off a potentially bad investment or buy into a golden opportunity.

Educators can benefit from the use of an E-learning approach to education by taking on the role of a facilitator; thereby allowing students to take ownership in the process. The process meets educator goals of preparing students to develop lifelong learning skills needed to drive their own learning and direction. Teachers can also grow as professionals and enhance the curriculum; collaborating with other academic areas and provide students with cross curriculum connections and real world applications of learning. The curriculum and educational experience throughout the middle school will benefit from an initial laptop initiative.

Consideration must be taken when implementing a laptop initiative. As with any large scale endeavor; there must be support from all stakeholders. Not only does the technology need to work, but administration and educators must support the process. Understanding short and long-term obligations for equipment, training, and maintenance is essential for success. The challenges of time and finances come into play, so the right questions should be asked before implementing a program. Reflection and continual assessment of the program must also be considered and practiced to meet the initial goals of the program.

Chapter III: Project Goals and Objectives

Economic students will use the laptop technology in three phases of the Introduction to Business and Economics class. First, students will use the laptops to participate in an online stock market simulation. In addition to trading stocks online, students will access news and market information on a daily basis. The second phase of the class involves the study of budgeting and personal finance. Technology will be used

to access real world investment information and resources. Having up-to-date information will cause learning to be relevant, thereby benefiting student motivation and understanding. Students can also use software for recording and accessing financial information. The third phase of the course involves the planning, operation, and evaluation of a student business. Laptop technology provides students with the chance to use software to research, plan, and operate their student based enterprise. An online curriculum enables student ownership in the process, resulting in a deeper level of participation and understanding. The approach of careful planning and evaluation follows the steps outlined by Stevens (2007).

The anticipated outcomes of this project involve increased student motivation and learning in business and economics. The process will result in greater levels of technology integration skills by students and staff, increased student-teacher and student-student communication, and a greater awareness of global conditions that affect economics and business. The result will be enriched curriculum units for business classes and the implementation of a laptop plan for Hudson Middle School; moving curriculum and student learning towards the future goals of the Hudson School District.

This proposal meets the goals of HSD 2025 by providing funding for HP mini-note student laptops for students in 8th grade business and economics courses. The use of this technology will encourage students to extend their learning beyond the normal classroom. This project encourages Hudson School District staff to master and integrate technology skills and then share these skills with others in the district. This meets the foundation's mission by encouraging academic achievement, offering enhanced learning opportunities to students, and increasing student-teacher communication. The project

uses relevant and up-to-date technology through student and staff use of online E-Learning.

Goal One: Educational stakeholders such as: educators, building administrators, and members of the Hudson Assistive Technology Committee will increase their knowledge of E-Learning and laptop program implementation; using the data collected to evaluate the implementation and make future recommendations on the implementation of HSD 2025.

Understanding the components and layout the groundwork for a laptop initiative is necessary for program success. The planning process involves pre-planning, implementation, evaluation, and reflection. Research shows that all stakeholders must share in understanding, deciding, and implementing the process. Collaboration enables the best opportunity for success and determination of future integration of technology. All stakeholders have to share common goals and purpose.

Educators will collaborate on interdisciplinary curriculum that involves the use of online learning. The benefits of a laptop initiative are realized across disciplines; therefore it is imperative that educators from core and specialist classes are involved in the process. Business teachers will collaborate with core subject teachers on interdisciplinary curriculum that involves the use of online learning. Collaboration will allow teachers to learn and use technology that otherwise might not be utilized. Being on the same page also ensures that curriculum is covered in the most efficient way, encouraging growth while eliminating replication.

Teachers will re-write curriculum; enhancing units to incorporate the use of online materials and real world applications for teacher business and economic concepts. Teachers will re-write curriculum during the collaboration process; ensuring that best practices are used in the delivery and assessment of learning. E-learning will

encourage this to happen because topics and materials will be fresh and relative to what is current. Online learning allows for flexibility and a real time approach to instruction and learning. Educators will be incorporating modern topics and practices into lessons and students will cause increased relevance and student interest in learning. Hands on learning also benefits a variety of learners and meets the HSD 2025 goal of having students communicate and demonstrate an understanding of global cultures, issues, and perspectives. The result of these actions will be an enhanced business curriculum that incorporates the use of online materials that are accessible by all students. In addition, information will be acquired that will bring the entire middle school up to speed on the requirements and implementation of a laptop initiative.

Goal Two: Students will have a better understanding of the content area by participating in a laptop initiative that utilizes E-Learning.

E-learning provides learners with the increased likelihood of gathering information from a variety of sources; allowing for more in-depth student research and application. Laptops provide learners with an organizational tool that allows them to come to class equipped for learning. Lessons and resources can be accessed in an orderly fashion wherever and whenever inspiration strikes. The variety of tools and resources creates an increased opportunity for student success and learning.

Students will access current news and market information using online technology and the Internet. Information is exchanged differently in the 21st Century; the use of Internet to share information and collaborate with others. The Internet will enable students to stay current on issues and topics in real time. Lessons and activities can be connected to what is happening in the business world. Learners can tap into what experts from business and industry are saying about business news through blogs, twitter, and

online finance information sites. Ideas can be turned into theories, implemented, and then tested using the real world as a backdrop.

Students will use the Internet to study budgeting and personal finance and then software to manage financial data. Informational sites and learning activities can be found throughout the Internet. Government resources, in combination with private financial organizations and institutions, provide numerous interactive video, simulations, calculators, and worksheets. These online tools will give students the chance to use concepts and make connections between knowing, doing, and understanding.

Students will use current software and online resources to create presentations of online research and a business plan. Various Microsoft software applications, in addition to online tools such as Google Docs, Google Sites, and Wikispaces, will be utilized for student collaboration, presentation, and demonstration of business understanding. Students will connect real world business applications to the lessons and activities covered in class. In addition, students will use technology to research, plan, and present a business plan.

Students will increase communication and student interaction by posting, participating in online simulations, and collaborating on global projects.

Students will participate daily in an online stock simulation that involves accessing and interpreting current news, market information, online technology and the Internet. In addition, learners will use the Internet to discover and interpret personal finance and budgeting. Computer software will be used to store and manage financial data. Current software and online resources will be also be used to create presentations of online research and business plans. Collaborative student projects will increase communication and technological skills; thereby preparing learners for 21st Century challenges.

Chapter IV: Project Methodology

The mission of the Hudson School District is to promote the appropriate use of technology to assist all students and staff so that they can become more independent, self-confident, and productive learners. HSD 2025 supports student acquisition of 21st Century skills through the use of technology, collaboration, flexibility, and an understanding of the global perspective. The addition of a classroom set of laptop computers for the business education classroom would not only enhance student learning, but it would also reduce congestion of the existing computer lab and laptops. The proposal also serves as a trial for potential future laptop initiatives throughout the district. Teachers and administrators can use feedback and results to determine desired future direction.

The following proposal steps support the expansion of technology and present a plan for completion. This chapter will outline the implementation of this project upon receiving the grant. The timeline, budget, and dissemination plan will be discussed in detail throughout this chapter.

Action Plan and Timeline

The preparation, implementation, and evaluation of the program will take place as noted in Table 1 below. This table lists activities on a month by month basis and runs according to the school calendar, which is broken down into trimesters. In addition, there are projects steps that will be completed during the summer months before and after the school year. Stakeholders from the school and community will be involved in the process. Feedback will be gathered from students, parents, and other teachers. The goal is to gather information, evaluate, and then make any necessary changes in the program to ensure learner success.

Table 1: Action Plan and Timeline

June – August	<ul style="list-style-type: none"> • Notice of grant award
2009	<ul style="list-style-type: none"> • Announce award to school board, administration, teachers, and community • Establish an advisory committee consisting of business educators, core subject educators, administration, local business leaders, and the technology coordinator. • Order 25 HP mini 1000 laptops and laptop storage cart • Determine space and curriculum requirements for fall 2009 based on class enrollment and room availability • Schedule time with district technology department to set up equipment and perform testing of the system as well as other logistical matters such as wireless connection and cart placement • Finalize all online curriculum materials, program evaluations, and surveys to be completed throughout the year • Notify parents of laptop initiative goals, applications, expectations, and program evaluation • Send survey to high school business education teachers to evaluate current student performance
September 2009	<ul style="list-style-type: none"> • Give pre-survey to students and staff (Appendix D and E). • Compile student and parent response data from pre-surveys to find student perception of technology and learning • Perform continual assessment of program and student learning

- October 2009
- Complete curriculum and assess student and laptop progress
 - Notify Trimester II parents of laptop initiative goals, applications, expectations, and program evaluation
- November 2009
- Gather Trimester I post-surveys and compile data
 - Share findings with teachers and administration through presentation at monthly faculty meeting and school website
- December 2009
- Prepare online materials and curriculum for Trimester II
 - Compare pre and post survey data from Trimester I
- January 2010
- Give pre-survey to Trimester II classes
 - Compile data from Trimester II surveys
 - Perform preliminary assessment of program based on Trimester I results and feedback
- February 2010
- Complete curriculum and assess student progress and effectiveness of curriculum
 - Make necessary adjustments for Trimester II
 - Send out thank you letters to all participants from Trimester I
- March 2010
- Give Trimester II post-surveys
 - Compile data from post-survey and compare to Trimester I
 - Share findings with teachers and administration
 - Send out parent notification for Trimester III participation
 - Prepare online materials, surveys, and communications for Trimester III

- April 2010
- Give Trimester III pre-survey
 - Compile data from survey and compare to Trimester I and II
- May 2010
- Complete curriculum and assess progress
 - Send thank you letters to all participants from Trimester II
 - Make adjustments to program based on student, parent, and teacher feedback
- June 2010
- Give Trimester III post-survey
 - Compile data from survey
 - Compare data from all three trimesters
 - Write thank you letters to all participants from Trimester III
- July – August
of 2010
- Complete final report and present to grant agency
 - Present findings to school board and administration
 - Send out letters to parents regarding the study results
 - Write an article for community newsletter
 - Continue program evaluation and implement necessary changes for fall 2010
- September 2010
- Present findings of study to teachers at beginning of year in-service program
 - Create and send out survey to high school business teachers regarding the change in student performance

Evaluation Plan and Tools

The project involves both formative and summative evaluations. The formative portion ensures that the process is working and whether participants are meeting the goals of the project. Evaluations will be done each trimester thereby allowing changes to curriculum and instruction as the year progresses. Summative evaluations will be made at the end of each trimester and data will be collected to determine the success of the completed project. Student competency will be evaluated using surveys and portfolios.

Several surveys will be used to gather information from the student and parents involved in the project. These surveys will be given at the beginning and then end of the project. Results will be compared to evaluate if there has been a change in student learning and technological perception from implementing the project. Results will be evaluated and shared with faculty and participants at the end of each trimester, as well as, when the school year is complete. Having three trimesters worth of data should provide a better understanding as to the effectiveness of the laptop program.

Dissemination Plan

Results of the evaluations will be shared with the District Learning Services Director, the District Technology Council, and the Education Foundation of Hudson at the end of the first year. Hudson Middle School faculty and staff will be updated on the process each trimester through a presentation at all building meetings and link on the district technology server. In addition, parents and the community will be informed on the results of the program through the school newsletter, school website, and communications sent home. A news article will be written for the Hudson Star Observer about the laptop program and a presentation will be made to the District School Board at

the end of the year. Press releases will also be given to local radio and television stations, the Wisconsin Business Education Association, and National Business Education Association.

Budget

Table 2 outlines the financial resources required for this project to take place. The majority of the budget will be used to purchase equipment. The laptop initiative at Hudson Middle School will require the purchase of 25 mini laptop computers and a cart for storage. This one time purchase will get the program started; additional replacement laptops will be added in future years using the business department budget. The budget will allow for the replacement of approximately five laptops each year; thereby allowing technological upgrades and replacement of each computer every five years.

Personnel costs will involve several members of the school district technology staff and will consist of the equipment set up for the cart and laptops. Each member will be reimbursed at \$18.00 an hour and it is estimated that the set up will take five hours to complete. In addition, a business education teacher will be assisting in the system set up; however the cost for this position is covered through their yearly salary and will not require additional funding.

The requested budget for equipment is \$10,721.26. This cost consists of the purchase of a classroom set of HP mini laptop computers and a storage cart. The business teacher travels from classroom to classroom and the cart is needed for storage and security of the laptops when they are not being used. There will not be a need for additional equipment or infrastructure because wireless printers are located throughout the building and a wireless system is in place within the entire school.

Table 2: Project Budget

Hudson Middle School		
Business Education		
Laptop E-Learning Initiative Budget		
I. Personnel		
<i>Description</i>	<i>Quantity and Cost</i>	<i>Budget Requested</i>
District reimbursement for compensation of two district technology department technicians.	2 @ \$18.00/Hour 5 Hours	\$180.00
II. Equipment		
HP Mini 1000 Laptop Computer	25 @ \$499.99	\$9,999.75
<ul style="list-style-type: none"> • Windows XP • 10.2" LED Display • 1GB Intel Graphics Atom Processor (1.60GHz) • 60GB 4200RPM PATA Hard Drive • HP Mini Webcam • HP Matching color keyboard • Wireless-G Card • 3 Cell Lithium Polymer Battery 		
Luxor Laptop Storage Cart (including shipping and handling)	1 @ \$721.51	\$721.51
Total Budget Requested		\$10,901.26

The initial cost for this initiative will consist of personnel and equipment costs of \$10,901.26. This investment will confirm Hudson School District's HSD 2025 commitment to student learning and allow students the opportunity to meet the challenges of the 21st Century. Business students will be able to use technology in a way that will prepare them for future challenges. In addition, this initiative will serve as a study regarding the impact of laptops on student learning in the Hudson School District. No additional funds will be needed to complete this project and all future upgrades will be covered through the departmental budget.

References

- Burns, K. & Polman, J. (2006). The Impact of Ubiquitous Computing in the Internet Age: How Middle School Teachers Integrated Wireless Laptops in the Initial Stages of Implementation. *Journal of Technology and Teacher Education*; 14(2), 362-385. Retrieved September 21, 2008 from EBSCO Host database.
- Clark, D. (2002). Psychological Myths in e-learning. *Medical Teacher*; 24(6), 598-604. Retrieved September 26, 2008 from EBSCO Host database.
- Clarke, A. (2007). The Future of e-Learning. *Adults Learning*; Mar2007, 18(7), 14-15. Retrieved September 27, 2008 from EBSCO Host database.
- Donovan, L., Hartley, K., & Strudler, N. (2007). Teacher Concerns During Initial Implementation of a One-to-One Laptop Initiative at the Middle School Level. *Journal of Research on Technology in Education*; Spring 2007, 39(3), 263. Retrieved September 25, 2008 from EBSCO Host database.
- Fitzpatrick, D. (2007). An Online Course of Action. *THE Journal*; Jul2007, 34(7), 38-40. Retrieved September 25, 2008 from EBSCO Host database.
- Grant, M., Ross, S., Weiping, W, & Potter, A. (2005). Computers on Wheels: an Alternative to Each One has One. *British Journal of Educational Technology*; Nov2005, 36(6), 1017-1034. Retrieved September 26, 2008 from EBSCO Host database.
- Hall, M. & Elliott, K. (2003). Diffusion of Technology Into the Teaching Process: Strategies to Encourage Faculty Members to Embrace the Laptop Environment. *Journal of Education for Business*; July/Aug2003, 301-307. Retrieved April 20, 2009 from EBSCO Host database.

- Manchester, B., Muir M., & Moulton, J. (2004). Maine Learns: The Four Keys to Success of the First Statewide Learning With Laptop Initiative. *THE Journal; Jul2004*, 31(12), 14-16. Retrieved September 21, 2008 from EBSCO Host database.
- O'Hanlon, C. (2007). A Measure of SUCESS. *THE Journal; Feb2007*, 34(2), 26-32. Retrieved September 21, 2008 from EBSCO Host database.
- Pantazis, C. (2002). Maximizing E-Learning to Train the 21st Century Workforce. *Public Personnel Management; Spring 2002*, 31(1), 21-26. Retrieved April 19, 2009 from EBSCO Host database.
- Penuel, W. (2006). Implementation and Effects Of One-to-One Computing Initiatives: A Research Synthesis. *Journal of Research on Technology in Education; Spring2006*, 38(3), 329-348. Retrieved September 26, 2008 from EBSCO Host database.
- Purnell, J. (2005). E-Learning & Virtual Schools: Giving Students and Teachers an Edge: *Media and Methods; Sept/Oct2005*, 42(1), 28-29. Retrieved September 26, 2008 from EBSCO Host database.
- Romi, S., Hansenson, G., & Hansenson, A. (2002). E-Learning: A Comparison between Expected and Observed Attitudes of Normative and Dropout Adolescents. *Educational Media International; Mar2002*, 39(1), 47-54. Retrieved September 27, 2008 from EBSCO Host database.
- Stevens, J. (2007). The Laptop Minefield. *American School Board Journal; Jul2007*, 194(7), 19-21. Retrieved September 27, 2008 from EBSCO Host database.

- Villaverde, J.E., Godoy, D., & Amandi, A. (2006). Learning styles' recognition in e-learning environments with feed-forward neural networks. *Journal of Computer Assisted Learning; Jun2006, 22(3)*, 197-206. Retrieved September 27, 2008 from EBSCO Host database.
- Wambach, C. (2006). From Revolutionary to Evolutionary: 10 Years of 1-to-1 Computing. *THE Journal; Sept2006, 33(14)*, 58-59. Retrieved September 25, 2008 from EBSCO Host database.
- Warschauer, Mark. (2005). Going One-to-One. *Educational Leadership; Dec2005/Jan2006, 63(4)*, 34-38. Retrieved September 21, 2008 from EBSCO Host database.

Appendix A: Cover Letter

April 10, 2009

Mr. Steve Keller
Executive Director
Educational Foundation of Hudson
P.O. Box 252
Hudson, WI 54016

Dear Mr. Keller:

The integration of E-Learning and implementing one-to-one laptop initiatives in education are important in keeping pace with the changes in delivery of information and relating to the 21st Century learner. As a teacher, in business education, I have noticed the educational and real world need for online learning and technological understanding. There needs to be more data analysis in the area of E-Learning and laptop initiatives. I am a graduate student who is working on my master's degree in education at the University of Wisconsin—Stout and am interested in exploring this issue.

I have some ideas of that may support your agency's mission and goal of promoting new technology while enhancing learning opportunities for students. Accordingly, I would like to request two items:

1. An application for the Star Grant Program and guidelines (RFP)
2. A list of recent grant winners and project summaries

These items will assist me to better understand your agency's current priorities and to see if there is a match between my interests and funding opportunities.

Sincerely,

Dustin Miller
Business Education Teacher
Hudson Middle School
1300 Carmichael Road
Hudson, WI 54016

Appendix B: Application Format Requirements

Star & Star Initiative Grant Application Format Requirements

Each proposal must contain the following sections:

Proposal Overview

1. Purpose of the proposal.
2. Who will be involved?
3. Major benefits.
4. Contact Person: Name, Address, Telephone Number
5. Signature of appropriate administrator
6. Grant Application Cover Sheet. This cover sheet must be attached to each grant request. Any grant submitted without this cover sheet will not be considered.

Proposal Description

1. Please state the goals and anticipated outcomes of the proposal.
2. Explain how the proposal will meet the above goals.
3. How does the proposal advance the mission of the Foundation?

Audience/Expenditures

1. Be as exact as you can in describing who will be directly involved in your proposal (e.g. 20 students in fifth grade class, which teachers, etc.) and how they will be involved.
2. Explain how this proposal will displace or improve upon something currently existing.
3. Please state how much money will be needed, and how it will be spent. Submit itemized list of equipment, materials, books, etc.

Evaluation

1. Describe the methods to be used in judging the proposal a success. Clearly state the criteria to be used in making this judgment. Attach any evaluation instrument developed for this proposal. Objective evaluative data is encouraged.

Dissemination

1. Describe how the proposal results will be disseminated to others.
2. The Foundation requests that recipients acknowledge the Education Foundation of Hudson for any publicity involving grants funded by the Foundation.

Final Report

Once your proposal is completed, the Foundation would like to receive a written report summarizing the outcome and results.

Applications

Applications must be submitted to the Foundation. Applications for Star Initiative Program grants postmarked by April 1 and November 1 will be considered. The final selections will be made by the Foundation Board of Trustees. Please send application to: Board of Trustees, Education Foundation of Hudson, P.O. Box 252, Hudson, Wisconsin 54016. Applications may be submitted online at our website.

Appendix C: Grant Application Cover Sheet

Education Foundation of HudsonGrant Application Cover Sheet

Application Date: _____

Type of Grant: _____

Grant Amount: _____

Grant Title: _____

Name of School: _____

Person(s) submitting grant: _____

Contact Person: _____

Telephone number: _____

Email address: _____

Signature of School Administrator: _____

This cover sheet must be attached to each grant request. Any grant submitted without this cover sheet will not be considered!

Appendix D: Student Survey Questionnaire

Student Survey Questionnaire
Economics E-Learning

Answer the following questions about your learning experience this semester. Only mark one answer for each question.

1. Using the Internet and technology increases my class participation.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
◦	◦	◦	◦	◦

2. The use of hands on learning allows the opportunity for better understanding of classroom material and concepts.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
◦	◦	◦	◦	◦

3. Daily use of laptops makes learning material easier.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
◦	◦	◦	◦	◦

4. Daily use of laptops helps complete the requirements of this course.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
◦	◦	◦	◦	◦

5. Using laptops and E-Learning has helped prepare me for the challenges I will face in high school.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
◦	◦	◦	◦	◦

6. I have a good understanding of global issues and how they relate to me here in Hudson, Wisconsin.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
◦	◦	◦	◦	◦

7. I take responsibility for my learning and feel comfortable with working on my own.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
◦	◦	◦	◦	◦

8. I feel comfortable with my educational future and my ability to adapt and change to meet new challenges.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
◦	◦	◦	◦	◦

Appendix E: Parent Survey Questionnaire

**Parent Survey Questionnaire
Economics E-Learning**

Answer the following questions about your learning experience this semester. Only mark one answer for each question.

1. Using the Internet and technology has increased my child's enthusiasm for learning.				
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
◦	◦	◦	◦	◦

2. The use of hands on learning allows the opportunity for better understanding of classroom material and concepts.				
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
◦	◦	◦	◦	◦

3. Daily use of laptops makes learning material easier for my child.				
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
◦	◦	◦	◦	◦

4. Daily use of laptops helped my child complete the requirements of this course.				
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
◦	◦	◦	◦	◦

5. Using laptops and E-Learning has helped my child prepare for the challenges he/she will face in high school.				
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
◦	◦	◦	◦	◦

6. My son/daughter has a good understanding of global issues and how they relate to us here in Hudson, Wisconsin.				
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
◦	◦	◦	◦	◦

7. My child takes responsibility for his/her learning and feels comfortable working alone.				
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
◦	◦	◦	◦	◦

8. My child feels comfortable with their educational future and ability to adapt and change to meet new challenges.				
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
◦	◦	◦	◦	◦