Online Learning Feasibility Study
BHM School District 2010

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Summary of findings and recommendations

General Background:

Online learning is the use of web-based software to deliver instruction and content to students. Online learning is a general term that can be applied to a wide degree of web-based instruction that ranges from a single day assignment to a complete distance learning course. The table below provides a brief overview of three common ways online learning is implemented into schools and two of the common formats.

Type of online program	Description of online program
3rd party purchased courses	Curriculum and delivery software are purchased from a third party provider. Typically there is an annual subscription fee. The most basic services allow students to be assigned to a course that is facilitated by a district teacher. At higher subscription levels greater access to the provider's curriculm is allowed and courses can be customized. In certain cases the provider will even provide an instructor to monitor the course. With third party providers the greater the access to their curriculum the more each subscription costs. Subscription fees are reduced based on number purchased. Students complete all their course work online.
District developed online courses	These courses would have to be created by the district. They are similar in function to purchasing a course through a third party provider with the exception that there would be no annual fee. Students would complete all course work online. The district would need to have software to be able to manage and deliever the content to the students. With district developed courses there would be a large buy in cost as each course would need to be fully developed prior to the start of the course.
Supplemental/hybrid courses	These course use online coursework to supplement what is done in the classroom. A supplemental approach includes using online learning sparingly for research or webquest style assignments (the most common practice). A hybrid course would include using online materials frequently as part of the class. This could include students completing homework online, taking part in discussions forums, taking quizzes online, or completing coursework in an online format.

Formats

Seminar format	This is an approach to content delievery. Typically the course is broken into weeks, with a weekly discussion topic and one or two assignments for the week. This is a common format for universities to use.
Traditional format	This is an approach to content delievery. This format is similar to tradiational classroom instruction, except all online. The course is broken into units, and typically students are expected to demonstrate a level of mastery before they can move on in the lessons.

The value of online learning to this district is that it provides a greater means of serving all our students as well as potential help to stabilize the budget of the district. With the option to provide modified content to students or allowing for students to test through material they already know, courses can be designed to meet the specific learning needs of the learner. The ability to adjust content or assign mastery levels allows a greater flexability in what curriculm is delivered compared to a traditional setting. Online education also provides an alternative setting compared to the traditional brick and mortar classroom. Through offering an alternative setting to students, we may be able to reduce the number of students leaving the district who are looking for a different system than the one offered currently. This in turn may help to stabilize the district budget, particulary if online only courses are offered. Several districts around the state have been successful in being able to attract students to their schools by offering online only education. The result for those districts is that their enrollments have increased, without a need to increase facilities therefore leaving more funds to invest in staff and curriculum.

1. What are the options for implementing online education in BHM?

The best option for BHM at this time is to look at starting OLL as supplement to a standard classroom instruction and to supply differentiated curriculum to specialized programs in the district (special education, gifted education, Phoenix). Programs that could benefit immediately would be targeted services, credit recovery programs, gifted education, resource/fundamental math courses, exam prep programs, and alternative high school programs. The purchased online course can range in price from $95-$1200 per student depending upon the type of services and content required. Prices and packages can be negotiated. The drawback to going with the online provider is that the district will never own the curriculum. Because of that we also recommend that teachers be encouraged to start to develop their own online curriculum to supplement what they do in the classroom.

Currently in BHM teachers are encouraged to use online tools (Moodle, Google docs, blog tools) to have students complete assignments, assessments, or research projects. Teachers should be provided time to develop online learning resources to be integrated into their current coursework. Additionally resources should be provided for teachers to record demonstration, performances, labs, or discussions to be included in their online courses. Teachers should receive training in the creation of Moodle lessons so they are able to post electronic copies of assignments, lectures, demonstrations, labs, videos, and assessments to their class page so students have greater access to resources. These posted materials over time will start to form the base for online course development. The funding to allow for the development of online resources and purchase of resources is already in place with the current teacher grant system and tech champion grants. Development time was provided during the school year during a district workshop day that focused on technology integration and should continue to be provided in the future to continue to encourage the growth of online learning.

In support of teachers developing their own online courses it would be a good idea to explore the option of joining a current online consortium. By joining a consortium we would be able to quickly offer a large catalog of courses to our students, while developing our own courses, and have training and development support from the consortium. If our district wants to offer full online course offerings then joining a consortium may be the best option to allow a large number of courses while not needing to spend a large amount of money to develop those courses.

The overall requirements for providing online learning in a district are governed by MDE. For using online education as a supplement to the classroom there would be no additional requirements compared to a traditional course. If the district starts to provide stand alone online courses then there is an application process and specific requirements to meet. These are all outlined in section one of the report.

Although the initial recommendation is for starting with using online learning to provide course content for different acedemic programs, it makes financial sense to also start to develop a long-term plan to include stand-alone courses. In the 2008-2009 school year the district lost 30 students that enrolled in online high schools. This number represents only students that can be identified as transferring to an online school and does not include students transferring to districts that offer both traditional settings and online learning.   Assuming those same students can return to our district through online programs or additional students are attracted there is the ability to improve financial stability of the district. Based on 2008-2009 budget, roughly every 15 fulltime students attracted to the district would allow the program to hire 1 FTE instructor as well as cover the other cost of the courses provided. This estimate comes from factoring in the average cost of 1 FTE instructor and cost associated with the program as well as the potential savings of not having the student physically on campus.

2. What is the cost of the different options in comparison to each other and standard class instruction?

The cost of the online programs will vary greatly depending upon which provider is used and what type of program is wanted. The cost starts as low as $95 for a single course/subscription up to $1,200/subscription for total access to courses and content. We should be able to purchase subscriptions in the $95-$300 range that should meet our immediate needs of preparing students to pass the GRAD exam and providing remedial course work for students. For purchased programs we recommend looking at Apex learning, Plato, and Aventa learning as providers for online learning. An additional option is to further

Examples of cost estimates from online provider and services offered		
Cost per slot or student	Type of subscription	Service provided
$95	Slot	A single course, teacher will have limited ability to alter content, any number of students can cycle through the subscription.
$300	Individual	Students have access to the provider's entire library of courses, limited or no ability to alter courses by the teacher; can transfer the subscription to a new student.
$500-$800	Slot or individual	Each subscription allows access to courses equivalent to a full time schedule; teachers can customize courses.
$1,200	Slot	Full access to curriculum library; teachers can use providers' content to create completely new courses.

explore joining a consortium and start to develop our own courses. The consortium would offer a larger library of courses to offer to students, including options we may not offer currently in the district. The cost is typically less than $2000 to join and the price for students to take classes will vary based on where the class is taught.

Building our own stand alone courses at this time is not recommended due to the high front end cost, but teachers should be encouraged to start to develop online resources for the courses they teach. These resources would provide a framework for the teachers to eventually develop stand-alone courses as well as provide a great opportunity for development of common curriculum.

3. What is the district's technology readiness for implementing an online learning option for students?

The district's technology is in good shape for implementing online learning. The biggest need if a supplemental model is used is for computer access in the classroom. Both BHS and BCMS are well-suited for online learning opportunities because of the wireless networks. As more teachers turn to online learning tools there will be a need to increase the number of computers available including the possibility of creating mini labs in either individual classrooms or in common work areas. To extend online

learning opportunities into the elementary schools there would need to be an increase in computer access to those schools.

Financially, online programs will need to be creatively funded to get them going in the schools so as to not negatively impact the overall budget. Targeted Services funds could be used to start some online pilots. Special Education and Title 1 funds may all be possible sources of additional funding. We recommend bring Gifted Education, Special Education, and Title 1 into the discussion on online learning to determine if online learning could provide a useful resource for those programs and pool resources to pilot programs. Long-term funding of online programs would likely be tied to the results of pilot programs.

Online Learning Feasibility Study

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Questions to Answer:

1. What are the options for implementing online education in BHM?
2. What is the cost of the different options in comparison to each other and standard class instruction?
3. What is the district's readiness for implementing an online learning option for students?

1.1. What are the state requirements for online education?

The authority to use online learning in public K-12 schools is provided under 124D.095, Minnesota Statutes 2007 also known as the Online Learning Option Act (Revisor of Statutes, 2007). The Online Learning Option Act provides the legal requirements for all parts involved with online learning. Additionally it grants authority for the formation of an Online Learning Advisory Council who has the responsibility for overseeing all online learning programs in the state as an arm of the department of education. The requirements for online education are clarified under the Minnesota Department of Education (MDE) documents "Rights and Responsibilities of Students, Providers, Enrolling Districts and MDE" (MDE, 2008) and "Online Learning" (MDE, 2008). The document "Online Learning" lays out the basic requirements for certification which are; classes are taught Minnesota Licensed teachers, the classes meet or exceed state academic standards, class can be transferred to other public school districts, and apply to high school graduation. The certification requirements are further expanded upon in the "Rights and Responsibilities of Students, Providers, Enrolling Districts and MDE" document. MDE has defined what rights and responsibilities each stakeholder has in online learning.

Online Learning Rights & Responsibilities

Student's Rights

- Participate in any approved OLL program.
- Enroll full-time in a comprehensive OLL school through open enrollment, charter school enrollment or through an agreement between boards.

- Enroll in supplemental OLL courses during a single school year to a maximum of 50% of the student's full schedule of courses per term at the enrolling district.
- Enroll in supplemental courses above 50% if the enrolling district grants permission or if an agreement is made between schools for instructional services. Students may enroll in more than 1.0 ADM for a fee.
- Have the same access to computer hardware & software as other students enrolled in the district
- Complete coursework at a grade level that's different from the current grade

Student's Responsibilities

- Declare district of enrollment (OLL district/charter, other public district/charter, or nonpublic).
- Notify the online learning provider of their intent to enroll within 10 days of acceptance.
- Sign statement of assurance that they have reviewed and understand expectations of OLL enrollment.
- Enroll in supplemental OLL courses no later than the midpoint of the enrolling district's term.
- Adjust class schedule at enrolling district (reduce instructional contact) for supplemental OLL enrollment.
- Complete the course(s)

OLL Program's Rights

- Provide students enrolled full-time in OLL with up to 12 semester courses, or the equivalent per year.
- Provide up to 50% of instruction through OLL per term for supplemental online learning students.
- May limit participation by board resolution

OLL Program's Responsibilities

- Within 10 days acceptance, notify student & enrolling district of the course, credits, start date of instruction and confirm the course meets the student's graduation requirements at their enrolling district.
- Assist students whose family qualifies for the education tax credit to acquire computer hardware or software for OLL.
- Instruct no more than 40 students in an OLL course.
- Assist student with informing enrolling district of OLL participation and course completion.
- Request MARSS student numbers from prior enrolling district or resident district.

Enrolling School's Rights

- Reduce an OLL participant's instruction in proportion to the OLL courses taken from other than the enrolling district
- Challenge the validity of an OLL course

Enrolling School's Responsibilities

- Not prohibit a student from applying to enroll in OLL
- Award credit for completed coursework
- Allow students to participate in extracurricular activities
- Make available information about OLL to all interested people

Minnesota Department of Education's (MDE) Rights

- Collect $250 per OLL application
- Collect $50 per course challenge to facilitate the process

MDE's Responsibilities

- Certify OLL providers
- Develop, publish and maintain a list of approved providers
- Review challenges to the validity of a course
- Calculate and pay aid to approved programs
- Provide staff support to the OLL Advisory Council

1.1.a. Accountability

A district that provides online courses has the following requirements to meet.

- Within 10 days of acceptance notify student and enrolling district of the course, credits, start date of instruction and confirm the course meets the student's graduation requirements.
- Provide assistance for families who qualify for education tax credit to acquire a computer hardware or software.
- Request MARSS numbers from prior district or resident district.
- Assist student with informing enrolling district of OLL participation and course completion.
- Make sure curriculum meets state standards to achieve credit.
- Award credit for coursework completed, coursework must advance students towards graduation.
- Allow students to participate in extracurricular activities
- Make information about the OLL program public to all interested people.

1.1.b Funding system

Funding for online learning is similar to normal school funding. Students who are eligible for public funding can apply and attend the online school at no cost to them. A full-time student will bring the amount of state and federal dollars with them like traditionally open enrolled student. A part-time student will bring the percentage of money that they are enrolled in the online program with them. For example a student enrolled for 25% of their day in an online course will bring 25% of the state and federal monies with them to the online provider.

Students who are ineligible for public funding may enroll on a tuition basis. Students ineligible for public funding include nonpublic school students, students taking summer classes, students enrolling in classes above full-time, and students not physically in the state of Minnesota. Nonpublic school students can qualify for public funds if they enroll in a comprehensive online high school or if they enroll into a public school district and take supplemental courses online.

1.1.c. Standards to meet

Online classes are required to meet state standards. If there are no state standards the classes needs to be aligned to national or district standards for the class. Districts losing students to online classes do have the right to challenge the validity of the class if they feel it does not meet academic standards. Minnesota Department of Education has forms to complete to certify online learning courses. These forms are essentially a listing of state standards that require assignments and assessments to be listed for each standard.

1.1.d Support requirements

Samples of support provided:
Monthly packets in subjects to study, which include workbooks and tutoring CDs. At the high school many of these things are transferred to online assignments or viewable through video streaming on the web.

According to the frequently asked question page of the Minnesota Department of Education website (MDE 2009) online learning students are to have the same access to computer hardware and educational software that is available in the school. The district would need to provide assistance for families who qualify for the education tax credit under section 290.0674 to acquire computer hardware and educational software.

Additionally in reviewing the current online programs in the state most simplify the technology issues with online education by renting or loaning a computer to the students for the duration of their coursework. Upon completion of the courses taken the laptops are to be returned to the district. These districts often provide stipends for

internet access, with the typical stipend being about $20 a month. Several districts will provide antivirus software on the computer, others require the student to purchase antivirus software.

Most districts will use Microsoft Word, PowerPoint, and Excel as the primary document types in addition to PDFs for items that should not be changed by the students. As Microsoft Office is not an educational software the district would not be required to provide assistance in paying for it, although districts that provide computers typically send the computers with Microsoft office loaded or recommend students download open office.

1.1.e. Allowable options

The Minnesota Department of Education allows for several different styles of online learning programs (MDE 2008)

- Enroll in a full comprehensive program through open enrollment, charter school enrollment or through and agreement between boards
- Enroll in supplemental courses during a single year to a maximum of 50% of the student's full schedule
- Enroll above the 50% level for a supplemental level with approval of the enrolling district.
- Enroll above 1.0 ADM for a fee. (coursework acceleration)

Currently in the state there are about 20 active online programs and each program has used MDE's guideline to develop their own version of online learning. Below is an overview of different styles of programs out there; the most common being comprehensive high schools or K-12 programs. These comprehensive programs typically only allow for full-time enrollment and function in a similar manner as brick and mortar school. These programs tend to be evenly split between being an extension of a current independent school district or being a charter school. The other most common program type is the alternative schools which vary widely in their focus, but typically include options for homebound, expelled, or make-up credit options for students. In the list below, programs that offer a unique feature other than what would be expected from a normal school are explained in greater detail.

Types of current programs
Alternative programs (District-level programs providing full-time education and/or supplemental online learning)

- Alternative education opportunities for expelled students
- Expanded elective opportunities
  - o Minneapolis Public Schools and Anoka-Hennepin were the only schools the specifically highlighted programs for elective opportunities.

- Remedial programs
  - Minneapolis Public Schools and Anoka-Hennepin were the only schools that specifically highlighted programs for remedial programs.
- Alternative settings
  - Compass programs (Anoka-Hennepin Alternative Programs, 2009) attempt to provide opportunity for students to maintain academic achievement while going through crisis at home. The program is supervised by an assistant principal and student tenure is determined by the principal. They have multiple options that include programs for expelled students, those living in shelters, teen pregnancy, homebound students and those going through chemical dependency treatments.
  - Work experience and career exploration (Lakeville Area Schools ISD 194, 2009) is offered to grades 10-12 with the goal of providing students with a better idea of what they want to do after school. It provides resources to find additional training programs or schools to develop skills for that career. They partner with workforce type programs.

Charter schools or Public School extensions are individual schools separate from normal public schools (provide full-time enrollment comprehensive online high schools). Most programs focus on replacing the traditional school environment. Most programs are using packages provided or run by education corporations and do not build the courses themselves, although they may modify the courses for their districts.

- IQ Academy Minnesota 6-12
- Insight School of Minnesota 9-12
- Minnesota Center of Online Learning, Houston School District 9-12 expanding K-12
- Minnesota Virtual Academy K-12
- North Branch Area Public Schools K-12
- BlueSky Online Charter School 7-12
- Cyber Village Academy (mixed days of online and on campus learning) 3-8 EdVisions Off-Campus High School 7-12, follows a project model, where students choose to complete in depth study of particular areas of the curriculum. Effort is given to cover all standards but students get in depth study of certain aspects.
- Minnesota Online High School 9-12
- Minnesota Transitions School's Minnesota Connections Academy K-12
- Minnesota Transition School's Minnesota Virtual High School 7-12
- Trio Wolf Creek Distance Learning Charter School is a hybrid school that offers online courses but also provides school labs (Distance Learning Charter School #4095, 2009). This school is sponsored by the Chisago Lake School District. They estimate 25 hours online and 5 hours in the lab each week. Students are placed on Individual Graduation Plans (IGP) in developing their courses of study.
- Many districts also work together as a consortium in developing programs. Currently there are 4 consortiums in Minnesota.

- Stillwater Schools (emphasis 7-12); developed by own district. In efforts to meet standards in physical education and health, Stillwater Schools combined forces with Advanced Academics to create a PE/Health credit option online for students (7-12).

Consortiums of districts (providing supplemental learning course to member schools and students across the state.) These programs include multiple districts that work together to develop the online programs. Typically the primary focus is to provide supplemental courses for students within their districts. These programs tend to use free software like Moodle for their courses, and much of their curriculum appears to be developed by the districts themselves.

- Freshwater Education District Virtual School Consortium 9-12
  - o Allows to students exclusively in the cooperating districts of Bertha-Hewitt, Browerville, Eagle Valley, Henning, Long Prairie Grey Eagle, Menahga, Sebeka, Staples-Motley, Wadena-Deer Creek to take 50% courseload online each semester. The FED consortium offers high school coursework and college credits online. Students pay a materials deposit but return it at the end of the coursework and the credits are at no additional cost to students.

- Minnesota Service cooperatives (MSC) Online Learning Project 9-12
  - o Offers elaborate online coursework via Aventa Learning curricula and Moodle supplements. MSC charges an annual fee of $1,950 to school district allowing 3 teachers to give classes online. For every course using Aventa, districts are charged $375 per pupil ($125 per pupil in-house). If teachers are designing their own courses using Moodle or other medium, a $250 per-pupil stipend is paid. If no in-house instructor is available, there are experts statewide that MSC utilizes. Teachers are required to take 30 hours of instruction (15 hours F2F and 15 hours online) in the summer before becoming certified to teach. Hybrid courses are also an option with MSC and any full-time online courses need to be certified through MDE.

- INFINITY: Minnesota's Digital Academy 9-12
  - o Teams with online cooperatives and an ITV group to offer core and elective high school courses while cooperating with Central Lakes College for college credit coursework. INFINITY has entrance requirements for students seeking credit through their institution (ACT/SAT minimum scores or reading scores)

- Northern Star Online (NSO) 7-12
  - Cooperative of a mix of metro and greater MN school districts that offer courses state-wide using Apex curricula.
- Online Development & Instructional network (ODIN)
- SW/WC Online Learning Community.

1.1.f. Rules and regulations for running of online courses

All rules and regulations for online learning are dictated by the "Online Learning Option Act." (See Appendixes A) These rules and regulations are summarized in the document 'Rights and Responsibilities of Students, Providers, Enrolling Districts and MDE."

1.2. What models can we use and how would each look?

1.2.a. Is the OLL option its own entity within BHM, or is it an extension of each level (elementary, middle school, high school, Phoenix)?

There are three options used by most public school districts: (the charter school option has been left off as it is not a viable option for public schools.)

1. The online program becomes its own virtual school. This separates the online program from any other school. An advantage to this is that it makes it easier for people researching the district to know which program they are looking at. Also it makes it that the administrator in charge only needs to worry about the rules for online education, and not also that of the traditional school. From a budgeting view point it allows the online school to spend its resources on technology versus building upkeep. The disadvantages include an increase in paper work when students opt to take a class online versus the classroom. Possible increase in administration cost with an additional school as well as scheduling issues with pulling teachers from different schools to staff the classes.
2. The online program is an extension of the school. The courses are offered as on online version as part of the normal course catalog. An advantage is that students need only sign up for classes, without additional transfer paper work. Administrative cost could be shared by the school site. Teachers can split duty between traditional classroom and online classrooms easier. The disadvantages include blurring of the boundary between online and traditional classroom. Parents in and outside our district may have a hard time separating the online program from a traditional learning environment.
3. Join an active consortium. This option would allow the district to develop our own courses as well as use the courses developed by other districts. The cost for joining the consortiums is relatively low at less than $2000 while increasing the course offers to our students. The cost of developing a catalog of courses would be reduced as our students could take classes offered by all the districts in the consortium. The negative aspect to a consortium is that they typically only

offer courses to students from within member districts so attracting new students to the district is not as easy as a district only program.

1.2.b. What programming should be available through the OLL option?

Types of programs for online education that are out there:

Foundations or remedial programs	Literacy focused	Advanced placement
General curriculum	Credit recovery	Honors classes
Home bound	Alternative learning environment	Dropout prevention/ recovery
Gifted education	Home school	Summer school
Elective expansion	Work experience	English language learner programs
	Exam Prep	

Of these our district could be immediately served by looking at:

Targeted services	Exam prep	Fundamental courses
Differentiated instruction	Gifted education	Credit recovery

1.3. Curriculum Options

1.3.a. Becoming a member of a cooperative

Most of the online cooperatives are extensions of preexisting district partnerships or were formed to address the needs for multiple districts that could not be addressed by any one individual district. The price to join the cooperatives varies but typically was less than $2000. The idea behind the cooperatives is to combine resources of several districts to reduce the start and operation cost of an online program while expanding online offerings. Advantages to the cooperative is the reduced start up cost and pooled resources, while the negative is that there is the loss of the commercial applications of online learning.

1.3.b. BHM teacher-developed courses

Have current staff develop online courses for the district. Once developed online courses would be offered to students. This option does front load the cost of the program because of the development time needed. Additionally, by going alone there is no support system for the program other than the resources in the district. The

advantage to this approach is that all developed courses are owned by the district and can be actively marketed.

1.3.c. Free Programs or resources

Minnesota Learning Commons http://mnlearningcommons.org/index.php is a Minnesota based project to increase the quality of online teaching. It links or provides a number of tools to aid in developing online course. Some links go to content resources, but most of the content for a class will need to be done by the teacher.

Moodle:

Moodle currently powers our district's courseweb. It is an open source freeware program that allows teachers to develop their own online materials. Support for the software is done through a group of programmers. Moodle, because it is maintained by a group of volunteers, can be slow to update or fix minor problems. The advantage of an open source program is that anyone can write new programs for Moodle to use, and then submit those programs to be reviewed and possibly included in the newest version.

1.3.d. Purchase pre-developed courses

 Note: All purchased programs tend to have similar options and offerings.

Apex Learning (Apex Learning Inc, 2009)

Is an education corporation that works with schools to provide digital (online learning) instruction to schools and students. Apex Learning is accredited as a distance education school by the Commission on schools of the Northwest Association of Accredited Schools (NAAS). Apex Learning is also accredited by the NCAA as providing adequate instruction to meet initial acceptance to a college or university for athletics.

Courses are designed for English, Math, Social Studies, Science, and some World Languages.

Type of Class	What it is designed to do
Foundations	Remedial classes in math, reading, writing
General studies	Standard classes with 3 pathways that allow students to select the correct level of instruction for them.
Literacy Advantage	For students who are not ready for grade-level academic challenges because of low reading levels. Includes extensive scaffolding to help students master the required content.
Core Courses	Designed to meet the needs of a range of students. Still provides some targeted scaffolding for students but assumes students are ready for grade level work.

Honors Courses	For the motivated students who wish to seek or accelerate their learning. Designed to allow for greater opportunities to apply, extend, and synthesize knowledge. Should provide a foundation for students to go into AP or CIS courses.
Advanced Placement Courses	Authorized by the College Board, AP courses meet the higher-education expectations of college-level courses and prepare students to demonstrate achievements through the AP Exams.
Exam Prep Courses	Courses to help prep students for high stakes exams.

Apex Learning online courses provide a complete scope and sequence that is based on national or state standards. A typical semester includes 5 to 7 units. Each unit is comprised of 3 to 6 lessons. A lesson typically has a number of activities including studies, practices, reading, journals, labs, discussions, projects, explorations, reviews, and embedded assessments.

Apex Learning uses formative, diagnostic, and summative assessments through out their courses. The assessments are based on Bloom's taxonomy, with a variety of question types to address each level of Bloom's.

Teachers have the ability to customize courses for individual students or for the entire class. Students have course calendars, with due dates that are automatically generated based on specified course start dates and durations. Calendars can be modified for a single student or the whole class. Apex uses a mastery based learning model so content is locked until students achieve a certain score on an assessment. Students are allowed three attempts to show mastery before the assessment is locked and the instructor will be required to intervene at that time.

There are controls built in to ensure academic integrity, including randomized questions, locking of content during the exam, code access for proctored exams, delaying feedback until the exam window is closed, and timed assessments. The software also looks for abnormal results including length of time to take the assessment and flags those for the teacher to examine.

Apex learning also provides a host of reports the teacher can use to track student progress and performance. Reports include enrollment summary, student summary, student session time, student progress, diagnostic summary, and activity scores. There is also an online grade book which is edited by the teacher but viewable by the students.

Apex learning provides programs for Adolescent Literacy, Advance Placement, Credit Recovery, Distance Learning, Dropout Prevention & Recovery, English Language Learners, Middle to High School Transition, Non-Traditional Schools, Remediation, and Summer School.

Apex Learning sells their program as a subscription based service. The subscription is valid for 365 days from time of purchase and cost $200 (base cost) per student slot. One slot is valid for a single student enrollment. A single student enrollment allows that student access to all the courses provided by Apex Learning. Slots can be reassigned if a student leaves the program. The base cost includes a help line for staff and students, coursework, and technical support. Professional development is available. Additionally the base cost is the high point, but it can be reduced through service contract. The actual cost per slot will be determined by the number purchased. With the exception of foundations and AP courses students can easily move between pathways. (Brian Whiteaker, personal communication, 7/7/09)

Education 2020 (e2020)

Education 2020 is an education corporation that designs and provides online instruction for core and some elective courses. The courses are aligned to national and state standards. Education 2020 virtual classroom operates on a one-one basis, so class progresses at the rate of the student. Education 2020 highlights this as a reason their program is so successful in credit recovery courses.

The approach e2020 takes is to allow students to move at their own pace through the curriculum in an effort to make all children have a meaningful academic experience. Their instruction is cyclical in nature.

Education 2020 has programs for alternative education, at-risk/enrichment, exit exam/test prep, special needs, traditional classroom intervention, virtual schools, core instruction, and credit recovery. Programs target grade 6-12 students.

- Support AYP (attendance, completion rates, and state testing)
- Meet the needs of misidentified/over-identified students
- Maximize time-on-task for instruction to individual student needs
- Provide a structured model for credit recovery
- Provide differentiated instruction and Individual Education Plans
- Support English Language Learners
- Provide Least Restrictive Environment (LRE) for special needs students
- Flexible implementation models with open entry/open exit
- Offer students the ability to progress at their own pace with anytime, anywhere access

Education 2020 provides staff development for its courseware. This includes training for administration and teaching staff.

PLATO Learning

PLATO Learning is another educational corporation. They offer courses for self paced K-adult, teacher facilitated instruction for K-12 educators and courses for colleges. All

courses are aligned to state and national standards. PLATO offers three different brands to its system. The first is for at-risk students and those below grade level, the second is designed to integrate directly into a classroom, while the third is a pure online virtual system.

PLATO is a subscription based service. With PLATO each subscription is valid for one student to be logged in at a time. For example if you have 10 subscriptions you can have a max of 10 students logged in at a time, but when one of those students logs off another student could then log in. As with other paid services a teacher needs to be in charge of the account to monitor student progress and results. The subscription fee ranges from $95 for a single class to $1200 for the comprehensive library. There is a fee for professional development, but all support services for the services are included in the cost.

With PLATO, teachers can assign part of a course or the whole course to a student. The teacher can also add their own content to the courses. Additionally it is possible to customize the course for individual students as needed. Packages purchased can be customized to the district and include options for purchase of just the course or course and content. Courses are a prepackaged class ready to go. Additional content can be added but must be created by the teacher. If the content is purchased the teachers can pull lessons form the content library to add specific skills or lessons to a course for a student. (Francois Pomerleau, personal communication, 7/7/09)

k12.com

According to their sale representative k12.com only home based learning and doesn't provide services to districts. This is confusing since they are the provider for Huston Public Schools which hosts the Minnesota Virtual Academy. Regardless, k12.com is not a viable provider despite their impressive collection of online materials. (Personal Communication, 7/13/09)

Aventa Learning

Like the other online providers, Aventa provides a wide array of content. Aventa does offer a mix of pricing options from per enrollment to perpetual licensing. They also offer the ability to fully run the program or to simply provide content to the school and the school provides the instructor.

Aventa boasts the ability to provide their curriculum in any of the major online learning software that is currently on the market including Moodle. The online courses can be customized by the teachers and can either by stand alone or hybrid/supplement materials for a classroom. One of the nice customizable pieces is that students can pretest out of certain assignments or units. This is an attractive ability if this software is used as for credit recovery, exam prep, or fundamental course work as the students

will only spend time working on assignments that advance the skills they are missing instead of working on skills already mastered. (Aventa Learning, 2008)

2. What is the cost of the different options in comparison to each other and standard class instruction?

2.1. Establish the current funding breakdown

2.1.a. Where does each dollar go?

Online courses would produce cost savings and additional expenses within the budget. Looking at the current budget and where money is spent, assumptions can be made about what specific areas would see a potential cost savings or cost increases. These assumptions are based on the online academy approach.

Transportation: There should be a total savings in this category as students would not need to be bused to school. Currently it costs about $579 per year per student for busing.

Food Services: Online students would not add a meal cost to the district, essentially we would increase enrollment without the need to increase the number of meals served in a day.

Substitutes: The typical model for online learning is such that a teacher would not need a substitute on days that they are ill because of the structure of the class. Current substitute cost is $110 per day per teacher.

Printing Services/Duplication: With on online model the majority of the work is completed online or the students will print out what they need using their own printers. The savings amount would depend on the number of students and type of class but a good illustration of the potential is to assume in a standard class a student will receive a one page handout. If there are 30 students per class that is 30 pages, and there are 5 classes per day so per day this class uses 150 pages. Using a 174 academic days, that class using a minimal amount of paper uses 26,100 pages per school year. With each copy costing about $.01 per page this class cost $261 per year for printing. This is the bottom end of the printing cost, as most classes need multiple pages printed for each day, but serves to illustrate the potential savings.

Enrollment recovery/tuition:

This is money that comes back to the district for students who open enroll out of the district to other online programs. For the 2008-2009 school year approximately 30 students open enrolled to online programs. Those 30 students equate to approximately $150,000-$170,000 leaving our district to other programs. The potential is to retain

those students within our district which helps the long term health of the district. In addition to recovering students who are opting to move to other districts an online academy is likely to attract students to our district further helping the financial future of the district.

Instructional cost:

Teacher cost will remain the same as online courses must be staffed by a teacher. Cost of specific budget categories will shift, but those shifts will likely balance themselves out. Printing and duplicating is the one area that it is expected to see a large savings.

Operations budget: There should not be a savings or a cost value added to the operations of the schools. What we will see is a shift in what percent of the budget is allocated to operations. Since we should see an increase in state aid from additional students, without the need to allocate more funds for operations cost we should see a shift in the per pupil spending of a lesser percent to operations and a greater percent to instruction.

Program Cost: (if we choose to purchase vs. build)

Purchased programs run from $200-$1200 for a year long subscription for a student. Additionally there would be a professional development fee to get teachers trained. The major draw back is that the district does not own the program so must maintain a subscription to keep the program.

Technology upgrades:

For an online academy technology cost would increase in the areas of server size and internet bandwidth. The software and programs would be serviced by the program purchased. If it is a site built program then there could be an increase in amount of work for technology staff.

Licensing agreements. (If we choose to build vs. purchase.)

For any interactive, online textbook or multimedia resources used on a staff built course a licensing agreement would need to be purchased. Depending upon the item in question purchasing the resource would allow it to be used in a traditional classroom, but not in an online classroom because that is considered redistribution of the material. To use those in an online setting the district would need to purchase additional licenses to make sure to comply with copyright law.

Software: (if we choose to build vs. purchase)

Depending upon the platform the online courses are built on, there may be a purchasing fee. Currently the district uses Moodle which is free to use and modify.

There are platforms which can be purchased that include features that Moodle does not currently have.

Curriculum Design: (If we choose to build vs. purchase)

With online course the curriculum would need to be built and completed prior to the courses starting. This front loads the course with the need to pay teachers to build the courses. Best estimates would put that between 300-1500 hours depending on the course and for only basic course. For advanced interactive lessons the number of hours to write them plus the skill set to do so could increase the number of hours substantially. The major advantage of building our own courses is that the district would own that curriculum, and would not need to continue to purchase a subscription each year.

2.2. Estimated cost of program components.

- Each class will need a teacher run the class. 1 FTE = $51,500 (Based on costing estimate from C.Klassen)
- Purchase subscription to provider at $200/student = $8,000/40 students, at $500/student = $20,000/40 students, at $1000/student = $40,000/40 students.
- Purchase of additional Computers $500/student=$20,000/40
- Additional bandwidth ?
- Additional server storage ?
- Professional development fees.

2.2.a. Initial cost (the buy in)

The initial cost will vary greatly, based on the program, its scope and long term objective. With the current equipment available in the district programs for exam prep or targeted services could be launched for $200 or less per subscription plus the professional development fee. For a fully comprehensive program the cost could climb to over a $1000 dollars per subscription. The subscription cost could be misleading in that one subscription does not necessary mean one student, but one person logged in at a time.

When looking at building our own online programs establishing a cost estimate is extremely difficult. With designing our own courses the cost of developing the curriculum, buying licenses for online resources, and developing interactive materials has to be factored in. With the estimate of 300-1500 hours need just for the content design it becomes clear that it is initially more costly than a purchased program. Over a number of years that cost is mitigated with the fact that you do not need to purchase a new subscription each year. The cost of building an individual course could be mitigated by spreading the development out over a number of years, and instead using a hybrid style course.

2.2.b. Operation Cost

Cost to run the class

The cost to run the course would come down to the price of the curriculum, the teacher pay, and any fees needed to be paid to MDE. If this supplements classroom instruction there should not be a fee to MDE. If the course is a stand alone class then the class must be certified by MDE.

Establishing size thresholds needed to break even on classes

For stand alone classes, to be self funding the program would need to attract about 15 students per 1 FTE. This covers the teacher expense of $51,500 (average cost of a teacher) plus subscription fees, and hardware requirements.

Using OLL as a supplement to the classroom instruction or as a specialized program, the threshold for the class to have zero impact on current budget will depend on what categorical funds can be used. For example targeted services funds could be used to purchase subscriptions to an online provider. Those subscriptions could be used not only during targeted services but also in other classes during the day. The funding of supplemental programs will come down to how we can tap funding streams more effectively.

Targeted services money could be used for some programs. Each student enrolled in targeted services provides $4/hour they are in an approved program. This would be one source of funding for some online curriculum and could provide a way to pilot the program at zero impact to the districts overall budget. (J. Hayden, Personal communication, 7/28/09)

2.2.c. Long term maintenance and upgrading of courses.

How much to revise the courses yearly

With a purchased program all updates and revisions happen through the provider and is factored into their cost. Teachers can then adjust the course packages as they see fit. For a district built course the updates and revisions would need to happen as part of summer curriculum writing or as a part of normal lesson planning.

With a district built program teachers would need to revise and modify the courses each year, through normal duty time and summer development time.

Maintenance cost of licensing agreement.

For a purchased program it would be the payment of the negotiated licensing fees. For a district built program it would be paying for copyright or licensing agreements depending upon that agreement.

2.3. Cost comparison of the programs

2.3.a. Analysis of neighboring districts

Currently there are no neighboring districts that offer full online learning. Prior Lake does have a gifted magnet that does use Online Learning but for only a select group of students. The metro area has a number of districts that do offer in-district programs only. It is possible that these districts are investigating this question as well or that individuals in-district are using a mixed online format.

2.3.b. Online learning options available to their students

There are no MDE approved offerings in our neighboring districts.

2.3.c. Fees charged to students for online learning options

For the normal academic year most programs do not charge a tuition or course fees as long as the student qualifies for public funding. Many schools do have options to for students who are not eligible for public funding to pay tuition plus course fees. Tuition fees on average range from $350-$500 per semester course (.5 credits). Certain courses may also have course fees attached to them. For example, an AP course may include the price of the AP exam in the cost of the course.

Additionally many schools require a deposit on materials that are sent to the student. These items include things like books, lab equipment, and computers. Deposits are returned when the course is completed and all materials are returned. Deposit fees vary widely based on the type of equipment that is being used.

Additionally all schools that offer summer school or credit recovery do have tuition schedules in place for those programs. With credit recovery typically there is not a charge to district students if they are enrolled up to a max of 1.2 ADM. Most programs that are working with credit recovery are districts that use online education as alternative learning environment or as drop out prevention programs. If a student exceeds 1.2 ADM or is not part of the district the tuition fee ranges from $125 - $200 per semester (.5) credit.

Schools that provide comprehensive school programs tend to charge their normal tuition rates. District students usually receive a discounted price compared to other students. Price range from $125-$375 for enrolled students and $250-$500 for students

not enrolled in the district. Prices for summer school were determined from MDE's published document "Minnesota Online Summer School 2009."

3. What is the district's readiness for implementing an online learning option for students?

3.1. Current capabilities

With the current equipment and wireless setups of the high school and the middle school, we should have the hardware in place to launch online learning. It may be beneficial to explore ways of maintaining a higher transfer rate from our servers, although that will only be a factor with a large amount of video streaming. If we use a purchased program, the providers will provide specifications of what equipment and storage requirements will be required if there is a need to upgrade the servers.

For either a purchased or district built program, training for the staff will need to take place. For a purchased program the provider will complete the professional development. For a district built program, the district will need to provide people to train staff in use of the software and how to build their own materials.

3.1.a. Facilities available – What do we have to use in terms of computers, labs, workspace.

Current Computer Availability and Expansion Options (J. Swanson, personal communication, 7/6/2009):

Schools	Mobile Labs	Static labs
BHM (wireless network)	1 cart of 20 computers	2 general labs 30+ machines, 3 business education labs, 1 technology education lab.
BCMS (wireless network)	1 cart 24 Macs, 2 SPeD carts 6-8 computers, 2 Gen Ed carts 18 computers, 1 cart for science 18 computers, 1 cart for social studies18 computers, 1 cart for music 20+ computers, 1 cart for BMW, 1 cart of 30 netbooks (pilot program)	2 general education labs of 30 + computers, 1 technology lab of 28 computers.
Elementary Schools	None	Each with at least one lab of 20 or more computers.

Expansion options (building level principals decide)

Expansions of computer resources would be important to be able to develop and use online learning as a supplement to the classroom. At the high school and middle school

with wireless connections the use of mobile labs would satisfy this use. It would also be possible to create mini labs in classes for a select number of students to use at a time.

3.1.b How this would be managed from the district.

Most online programs are managed as a separate school site within the host district or as a charter school. This means that there would need to be an administrator in charge of the online school. There are several ways this could be done. The first is to hire a principal to be in charge of just the online school. The second option would to have an assistant principal at the middle or high school split time between the physical building and the online school program. A third option would be to have an administrative assistant or dean of students in charge or the online school who would then be attached to one of the schools in the district. The administrator in charge would be responsible for making sure the courses are running as intended, as well as tracking fees, tuition, deposits, enrollment notifications, and making sure the online school complies with Minnesota law and MDE's directives in online learning.

124D.095, Minnesota Statutes 2007

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124D.095 ONLINE LEARNING OPTION.
Subdivision 1. **Citation.** This section may be cited as the "Online Learning Option Act."
Subd. 2. **Definitions.** For purposes of this section, the following terms have the meanings
given them.
(a) "Online learning" is an interactive course or program that delivers instruction from
a teacher to a student by computer; is combined with other traditional delivery methods that
include frequent student assessment and may include actual teacher contact time; and meets or
exceeds state academic standards.
(b) "Online learning provider" is a school district, an intermediate school district, an
organization of two or more school districts operating under a joint powers agreement, or a charter
school located in Minnesota that provides online learning to students.
(c) "Student" is a Minnesota resident enrolled in a school under section 120A.22, subdivision
4 , in kindergarten through grade 12.
(d) "Online learning student" is a student enrolled in an online learning course or program
delivered by an online provider under paragraph (b).
(e) "Enrolling district" means the school district or charter school in which a student is
enrolled under section 120A.22, subdivision 4, for purposes of compulsory attendance.
(f) "Supplemental online learning" means an online course taken in place of a course period
during the regular school day at a local district school.
(g) "Full-time online provider" means an enrolling school authorized by the department to
deliver comprehensive public education at any or all of the elementary, middle, or high school
levels.
Subd. 3. **Authorization; notice; limitations on enrollment.** (a) A student may apply for
full-time enrollment in an approved online learning program under section 124D.03, 124D.08
or 124D.10, or for supplemental online learning. Notwithstanding sections 124D.03, 124D.08,
and 124D.10, procedures for enrolling in online learning shall be as provided in this

subdivision.

A student age 17 or younger must have the written consent of a parent or guardian to apply. No

school district or charter school may prohibit a student from applying to enroll in online learning.

In order that a student may enroll in online learning, the student and the student's parents must

submit an application to the online learning provider and identify the reason for enrolling in

online learning. The online learning provider that accepts a student under this section must within

ten days notify the student and the enrolling district in writing if the enrolling district is not the

online learning provider. The student and family must notify the online learning provider of their

intent to enroll in online learning within ten days of acceptance, at which time the student and

parent must sign a statement of assurance that they have reviewed the online course or program

and understand the expectations of online learning enrollment. The online learning provider

must notify the enrolling district of the student's enrollment in online learning in writing on a

form provided by the department.

(b) Supplemental online learning notification to the enrolling district upon student enrollment

in the online learning program will include the courses or program, credits to be awarded,

the start date of online enrollment, and confirmation that the courses will meet the student's

graduation plan. A student may enroll in supplemental online learning courses up to the midpoint

of the enrolling district's term. The enrolling district may waive this requirement for special

circumstances and upon acceptance by the online provider.

(c) An online learning provider must notify the commissioner that it is delivering online

learning and report the number of online learning students it is accepting and the online learning

courses and programs it is delivering.

(d) An online learning provider may limit enrollment if the provider's school board or

board of directors adopts by resolution specific standards for accepting and rejecting students'

applications.

(e) An enrolling district may reduce an online learning student's regular classroom

instructional membership in proportion to the student's membership in online learning courses.

Subd. 4. **Online learning parameters.** (a) An online learning student must receive academic

credit for completing the requirements of an online learning course or program. Secondary

credits granted to an online learning student must be counted toward the graduation and

credit requirements of the enrolling district. An online learning provider must make available

to the enrolling district the course syllabus, standard alignment, content outline, assessment

requirements, and contact information for supplemental online courses taken by students in

the enrolling district. The enrolling district must apply the same graduation requirements to all

students, including online learning students, and must continue to provide nonacademic services

to online learning students. If a student completes an online learning course or program that meets

or exceeds a graduation standard or grade progression requirement at the enrolling district, that

standard or requirement is met. The enrolling district must use the same criteria for accepting

online learning credits or courses as it does for accepting credits or courses for transfer students

under section 124D.03, subdivision 9. The enrolling district may reduce the course schedule of an

online learning student in proportion to the number of online learning courses the student takes

from an online learning provider that is not the enrolling district.

(b) An online learning student may:

(1) enroll in supplemental online learning courses during a single school year to a maximum

of 50 percent of the student's full schedule of courses per term. A student may exceed the

supplemental online learning registration limit if the enrolling district grants permission for

supplemental online learning enrollment above the limit, or if an agreement is made between the

enrolling district and the online learning provider for instructional services;

(2) complete course work at a grade level that is different from the student's current grade

level; and

(3) enroll in additional courses with the online learning provider under a separate agreement
that includes terms for payment of any tuition or course fees.

(c) An online learning student has the same access to the computer hardware and education
software available in a school as all other students in the enrolling district. An online learning
provider must assist an online learning student whose family qualifies for the education tax
credit under section 290.0674 to acquire computer hardware and educational software for online
learning purposes.

(d) An enrolling district may offer online learning to its enrolled students. Such online
learning does not generate online learning funds under this section. An enrolling district that
offers online learning only to its enrolled students is not subject to the reporting requirements
or review criteria under subdivision 7. A teacher with a Minnesota license must assemble and
deliver instruction to enrolled students receiving online learning from an enrolling district. The
delivery of instruction occurs when the student interacts with the computer or the teacher and
receives ongoing assistance and assessment of learning. The instruction may include curriculum
developed by persons other than a teacher with a Minnesota license.

(e) An online learning provider that is not the enrolling district is subject to the reporting
requirements and review criteria under subdivision 7. A teacher with a Minnesota license must
assemble and deliver instruction to online learning students. The delivery of instruction occurs
when the student interacts with the computer or the teacher and receives ongoing assistance and
assessment of learning. The instruction may include curriculum developed by persons other
than a teacher with a Minnesota license. Unless the commissioner grants a waiver, a teacher
providing online learning instruction must not instruct more than 40 students in any one online
learning course or program.

(f) To enroll in more than 50 percent of the student's full schedule of courses per term in
online learning, the student must qualify to exceed the supplemental online learning

registration

limit under paragraph (b) or apply for enrollment to an approved full-time online learning

program following appropriate procedures in subdivision 3, paragraph (a). Full-time online

learning students may enroll in classes at a local school per contract for instructional services

between the online learning provider and the school district.

Subd. 5. **Participation in extracurricular activities.** An online learning student may participate in the extracurricular activities of the enrolling district on the same basis as other

enrolled students.

Subd. 6. **Information.** School districts and charter schools must make available information

about online learning to all interested people.

Subd. 7. **Department of Education.** (a) The department must review and certify online

learning providers. The online learning courses and programs must be rigorous, aligned with state

academic standards, and contribute to grade progression in a single subject. Online learning

providers must demonstrate to the commissioner that online learning courses have equivalent

standards or instruction, curriculum, and assessment requirements as other courses offered to

enrolled students. The online learning provider must also demonstrate expectations for actual

teacher contact time or other student-to-teacher communication. Once an online learning provider

is approved under this paragraph, all of its online learning course offerings are eligible for

payment under this section unless a course is successfully challenged by an enrolling district or

the department under paragraph (b).

(b) An enrolling district may challenge the validity of a course offered by an online learning

provider. The department must review such challenges based on the certification procedures under

paragraph (a). The department may initiate its own review of the validity of an online learning

course offered by an online learning provider.

(c) The department may collect a fee not to exceed $250 for certifying online learning providers or $50 per course for reviewing a challenge by an enrolling district.

(d) The department must develop, publish, and maintain a list of approved online

learning
providers and online learning courses and programs that it has reviewed and certified.
Subd. 8. **Financial arrangements.** (a) For a student enrolled in an online learning course,
the department must calculate average daily membership and make payments according to this
subdivision.
(b) The initial online learning average daily membership equals 1/12 for each semester
course or a proportionate amount for courses of different lengths. The adjusted online learning
average daily membership equals the initial online learning average daily membership times .88.
(c) No online learning average daily membership shall be generated if: (1) the student does
not complete the online learning course, or (2) the student is enrolled in online learning provided
by the enrolling district.
(d) Online learning average daily membership under this subdivision for a student currently
enrolled in a Minnesota public school shall be used only for computing average daily membership
according to section 126C.05, subdivision 19, paragraph (a), clause (ii), and for computing online
learning aid according to section 124D.096.
Subd. 9.[Repealed, 1Sp2005 c 5 art 2 s 85]
Subd. 10. **Online Learning Advisory Council.** (a) An Online Learning Advisory Council is
established under section 15.059, except that the term for each council member shall be three
years. The advisory council is composed of 12 members from throughout the state who have
demonstrated experience with or interest in online learning. The members of the council shall
be appointed by the commissioner. The advisory council shall bring to the attention of the
commissioner any matters related to online learning and provide input to the department in
matters related, but not restricted, to:
(1) quality assurance;
(2) teacher qualifications;
(3) program approval;
(4) special education;
(5) attendance;
(6) program design and requirements; and

(7) fair and equal access to programs.

(b) The Online Learning Advisory Council under this subdivision expires June 30, 2008.

History: *1Sp2003 c 9 art 2 s 20; 1Sp2005 c 5 art 2 s 58; art 4 s 12-14; 2006 c 263 art 2 s*
13; 2007 c 146 art 2 s 19-22

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