# **Final Report**

# Illinois Virtual High School Evaluation, 2001-2002

# August 2002

# EVALUATION NARRATIVE Volume 1 of 2

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# **EXECUTIVE SUMMARY**

This final report presents the results of an evaluation of the Illinois Virtual High School (IVHS) by a team of four external consultants. The evaluation focus was Fiscal Year 2002 (July 1, 2001-June 30, 2002), which included the Fall 2001 and Spring 2002 semesters.

The first section, **Introduction**, provides more detailed **evaluation context** information about the IVHS and also a **summary of evaluation activities** conducted since the filing of the *Preliminary Report* on June 15, 2002. Reflecting feedback from IVHS administrators, an amended version of the *Preliminary Report* is appended to the Final Report.

The second section, **Evaluation Narrative**, summarizes the results of an analysis of the evidence collected or otherwise obtained by the evaluators. The narrative is arranged according to the Evaluation Questions that guided the evaluation effort. Wherever possible, multiple sources of evidence are presented under each Evaluation Question, then summarized. The last Evaluation Question is Evaluation Question 5: **What are some "next steps" for IVHS improvement?** Under this question, summary recommendations are presented, in relation to each of the previous evaluation questions, and across the questions as a whole.

Given their length, the **Appendices** are included as a separate volume. They include a revised *Data Analysis Plan*, and two documents based on internal evaluation work of IVHS, the *Summary of Responses, IVHS End-Of-Course-Student Survey*, and the *IVHS Instructor Workshop Minutes*. Also included are *Data from Illinois Public School Records*, and summaries of responses from the *Local School Administrator and Counselor Survey*. The transcripts of the *IVHS Student Focus Groups*, and the *IVHS Instructor Focus Groups*, are not presently included due to their length. Excerpts can be found in the Evaluation Narrative. In the last appendix, descriptive statistics and openended responses are provided for the online *IVHS Instructor Survey*.

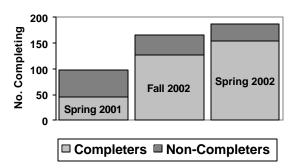
### **Highlights from the Report**

### Evaluation context

IVHS and other government-funded educational programs are seeing increased requests for accountability information. In Fall 2001/Spring 2002, 69 Illinois schools requested 425 student registrations, including 390 in 58 one-semester courses, and 35 registrations in 9 year-long courses.

The completion rate of students enrolled in one-semester IVHS high school courses rose from 53% for the Spring 2001 pilot semester, to a combined completion rate for Fall 2001/Spring 2002 of 80%. **Figure 1** illustrates completion trends.

Figure 1. IVHS semester course completions



About six students on average were enrolled in every Fall 2001/Spring 2002 one-semester course, and of these about five completed the course.

About 2700 students enrolled in 68 Illinois schools participated in AP Exam Review through IVHS in 2001-2002. An eBrigade formed by Chicago Public Schools worked with IVHS and ISBE to enroll about 2,000 of these AP

Review participants in Chicago, mostly in high-need schools.

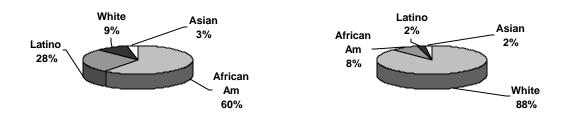
### Equitable access

IVHS served both rural and low-income urban students through its 2001-2002 strategy for promoting high school courses and AP Exam Review resources. Schools enrolling students in IVHS high school courses were predominantly rural, while the majority of AP Review schools were located in the largest urban area in the state.

On average, Chicago schools enrolling AP Review students had a student body that was 78.6% low income, while schools enrolling students in IVHS high school courses averaged 18.4%. In schools statewide in FY 2002, 36.9% of students were low income. The ethnic composition of AP Review schools in Chicago was about 52.3% African American and 30.6% Hispanic or Latino, while the ethnic composite at schools enrolling students in IVHS high school courses was 87.8% Caucasian. **Figure 2** shows ethnic composites for participating high school course and AP Exam Review schools.

Figure 2. Ethnic composite percentages of student enrollment, schools where students participated in AP Exam Review or high school courses through IVHS

Chicago schools offering AP Exam Review Schools offering IVHS high school courses



The data available to the evaluators did not allow highly accurate estimates of the demographic characteristics of actual IVHS participants. See also **Student outcomes and success factors**, on page *v*.

#### **Recommendations:**

- Develop strategies for providing equitable access to IVHS high school courses to urban, low-income, minority and underserved students, including strategies for promoting successful course completion
- Study the Advanced Placement (AP) Exam sitting rates, pass rates, and scores of students who participate in the AP Exam Review through IVHS

### Alignment, quality and rigor of courses

Instructors, administrators, and counselors generally appear satisfied that the quality of coursework being developed by IVHS is good and will improve with experience. About 83% of administrators and 89% of counselors surveyed felt that IVHS courses were of high quality. Students seem to have more concerns, especially about the amount and type of interaction in IVHS courses. It would appear that a significant minority of course sections had too few students for meaningful student-student interaction.

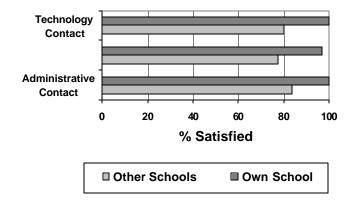
#### **Recommendations:**

- Establish a systematic internal review of selected IVHS courses
- Use trained raters and statistical methods in course quality analyses where needed for accountability purposes
- Seek to increase the proportion of course sections with justifiable enrollment levels

### Technological infrastructure and central support

Direct participants in the IVHS process appear to generally agree that the IVHS

Figure 3. Instructor satisfaction with local support



technological infrastructure is basically effective, although technology problems and the limitations of the courseware and platform tempered their enthusiasm. Instructors reported receiving good central support from IVHS.

### **Recommendations:**

 Consider establishing a "one-stop" dedicated technical help desk and resource center by FY 2004.

### Local IVHS support, IVHS coordination mechanisms

Local support services appear to be a "work in process" for IVHS. The evidence suggests that local schools provided variable levels of support for the IVHS process. Instructors generally rated support at their own school highly, but were less positive about support provided at their students' schools (see **Figure 3**). It appears that IVHS has made a fairly good start in providing coordination assistance to schools, instructors and students.

#### **Recommendations:**

- Incorporate the new manual for local schools into more extensive school orientation activities that include a focus on identified local support and IVHS coordination issues
- Consider ways to define and support the roles of local mentors
- Consider avenues to establishing more effective agreements of roles and responsibilities between IVHS and local schools

### Dissemination and recruitment activities

Extensive efforts were made to promote awareness of IVHS statewide. Administrators and counselors at schools with students enrolled in IVHS high school courses believed that they were disseminating information about IVHS to students. Some students and instructors saw the dissemination of IVHS information within schools as unsystematic and limited.

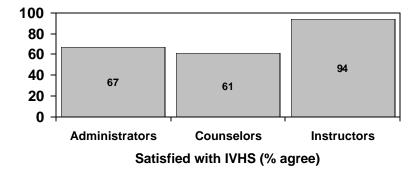
#### **Recommendations:**

 Develop internal dissemination strategies and include them in the school orientation program.

### Quality of the IVHS experience

Local administrators and counselors generally felt that the academic needs of students were being met by IVHS. Almost all instructors were somewhat or very satisfied with their IVHS experience. **Figure 4** shows the overall levels of satisfaction of these three groups. Successfully interacting with and serving students was the most satisfying aspect for instructors. They also expressed satisfaction with the training provided, but many

Figure 4. Satisfaction of some key participants with IVHS



wanted more. Around two of every three administrators and counselors surveyed at schools with participating IVHS high school course students were satisfied with IVHS. Some expressed concerns about technology, scheduling, supervision problems and the cost of courses. Most felt IVHS provided a valuable service for small and rural schools and those with limited

course offerings. About 6 in 10 IVHS high school course completers responding to the end-of-course survey felt online learning was an effective way to learn. Some did well in the online learning environment, while others did not handle it as well. Some students had concerns about the quality of interaction.

### **Recommendations:**

IVHS Schools:

Include a focus on helping school technology contacts in the "one-stop" help desk

■ In addition to implementing strategies for lowering apparent cost, such as the new lower course cost in 2002-2003, seek to increase the perceived value of IVHS, in comparison with other opportunities

### IVHS Instructors:

- Include a focus on resolving instructor technical issues in "one-stop" help desk
- Pursue strategies that sustain the current enthusiasm and motivation of instructors
- Use results of continuing research on successful instructor characteristics to screen potential instructors and develop online orientation materials
- Continue instructor networking and technical training opportunities, and facilitate early review by instructors of course content

### IVHS Students:

- Consider offering a more comprehensive student orientation
- Include results of continuing research on student success factors in counselor orientation materials

### Student outcomes and success factors

Direct measures of student achievement were not included in this evaluation due to a lack of availability of individual achievement data for linking to evaluation results in the short timeframe available. About 3 in 4 course-completing students responding to student surveys felt they had achieved the stated goals of their courses. Instructors felt students learned new subject matter and technology skills, and engaged in new types of learning that would help prepare them for college and for lifelong learning. Administrators and counselors consistently responded that students who they considered to be highly

"Instructors and students alike reported student motivation as the most important factor in IVHS student success." motivated, high achieving, selfdirected and/or who liked to work independently appeared to do well in IVHS courses. Instructors and students alike reported student

motivation as the most important factor in IVHS student success. Good online course study skills also appeared to be an important factor

#### **Recommendations:**

- Consider confidential data sharing and linking through ISBE to help document impact on achievement and other outcomes.
- As suggested previously, consider offering a more comprehensive student orientation, and perhaps a short course to encourage effective online study skills.

### Recommendations across evaluation questions

Some recommendations were made across the evaluation questions. They included:

- Develop a unified set of online surveys of key participants
- Use these surveys to periodically gather assessment data on key performance indicators for formative evaluation and accountability purposes

Details on evidence, analysis and recommendations of the external evaluators may be found in the Evaluation Narrative and Appendices of the *Final Report*.

# **INTRODUCTION**

### **Evaluation Context**

The Illinois Virtual High School is an initiative sponsored by the State of Illinois that provides eLearning opportunities for Illinois schools, students and teachers.

Established by the Governor and the Joint Education Committee, the IVHS is governed by the Illinois State Board of Education (ISBE), in collaboration with the Illinois Board of Higher Education (IBHE) and the Illinois Community College Board (ICCB). IVHS is one of several eLearning programs administered by the eLearning Division, part of the Standards Aligned Learning Department within ISBE. Key partners in the FY 2002 implementation of the IVHS included the Illinois Mathematics and Science Academy, Lake Land College, and Illinois State University/Illinois State University Laboratory School.

The mission of the Illinois Virtual High School is "to use new and emerging technologies that expand the boundaries of space and time to provide Illinois students and their teachers with increased equity and access to the highest quality educational opportunities."

The primary purposes (or strategic goals) of the IVHS, as stated in the IVHS *Preliminary Strategic Plan*, are:

- 1. Assure equitable access to rich and varied learning opportunities for Illinois students, with emphasis on curricular areas needed to ensure that all students can meet the Illinois Learning Standards and succeed in higher education and the workplace;
- 2. Expand high-quality professional development opportunities for Illinois teachers and other educators; and
- 3. Support schools in integrating technology into teaching and learning.

The IVHS is not a school. It is intended to enhance and support the educational offerings of the local school, and as a result does not offer a high school diploma. Instead, students register through their local public high school and receive credit through the school they attend. The local school determines student enrollment status and assigns final course grades.

IVHS used funding through the collaborating agencies to undertake its activities in FY 2001 and 2002. ISBE has obtained special project funds from the United States Department of Education (USDE) for FY 2003-2004 to fund a collaborative effort to further implement IVHS activities. Five initial university partners will participate in this effort with the IVHS: the University of Illinois at Champaign-Urbana, Illinois State University, Western Illinois University, Eastern Illinois University and Southern Illinois University at Carbondale. Among the activities to be completed by the end of FY 2003

by SIUC are the design and implementation of an IVHS continuous quality improvement and research design. A new special project under consideration would include all Illinois public universities in an effort to expand IVHS efforts in eLearning across all grade levels, p-16 and beyond.

During a period of budget shortfalls and transitions in federal education funding and guidance, the IVHS and many other educational programs have seen increases in requests for accountability-related information. Joint House and Senate resolutions in the 92<sup>nd</sup> General Assembly asked ISBE, IBHE, and ICCB to provide information to the Governor by January 15, 2003 about a number of programs, including "estimates of the costs of ... making more extensive use of the Illinois Virtual High School." IVHS and eLearning are referenced in the *Illinois 2002-2007 State Technology Plan*:

### 2002-2007 Illinois State Technology Plan (Excerpt)

*Program Goal 3.* Illinois students will be educated in environments conducive to learning in a technological, knowledge-based age by 2013-2014.

*Indicator 3.3.* The number of students whose educational opportunity is improved through eLearning (e.g., IVHS, online courses, online field trips). *Strategy 3G:* Complement and supplement local school district curricula by

making high-quality electronic learning opportunities available for all Illinois students.

Strategy 3H: Create standards for electronic -learning programs and services made available for Illinois students by commercial and public vendors

A 30-member statewide Steering Committee and an Executive Steering Committee provide advice and participate in IVHS strategic planning. Operational services for the IVHS are provided through an IVHS partner, the Illinois Mathematics and Science Academy (IMSA), located in Aurora, Illinois. Mr. Matthew Wicks, IMSA Director of Virtual Learning, and Dr. Brad Woodruff, Supervisor within the ISBE eLearning Division, act as program leaders for IVHS. The four-person IVHS management team of IVHS also includes Dr. Sandi Atols, who joined IMSA as Coordinator of Participating IVHS Schools in FY 2002, and Mr. James Kinsella of the Illinois State University Laboratory School, who became Coordinator of IVHS Faculty in FY 2003.

In 2000, eCollege of Denver, Colorado was selected competitively from among 5 bidders to develop and support the IVHS eLearning platform. It provides the portal for student registration, a common platform for online courses, related academic support services, and technical help desk support to institutions. During the 2001-2002 school year, IVHS brokered courses from eight public and private providers, repurposed as needed to operate on the eCollege platform. High school course providers included include Class.com, Apex Learning, Learning Station, the Florida Virtual School, Kentucky Virtual High School, the Illinois Math and Science Academy, and the Central Illinois Distance Education Network. The University of Illinois offered Calculus and Analytic Geometry I and II for early college or dual enrollment credit. Most IVHS instructors are contracted to teach a single course each semester or year. While most are practicing K-12 teachers, some are community college teachers or have other backgrounds. All hold current Illinois teaching certificates.

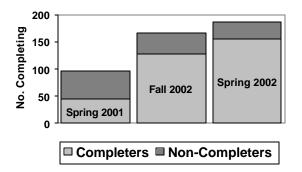
The Illinois Virtual High School first enrolled students in the Spring 2001 semester. Sixteen high school courses from several providers, and ten online AP Exam Review resources from Apex Learning were offered to students enrolling through Illinois public high schools. Based on student records obtained from IVHS, thirty-three schools requested 97 student registrations in 12 one-semester high school courses, and 36 schools requested 195 registrations in AP Exam Review offerings for Spring 2001. Many other schools signed up for future participation during this first semester of IVHS. Of those students who enrolled in Spring 2001, 14 dropped prior to the deadline without penalty. Forty-four completed their courses, with 77% earning a grade of A or B through their school. However, 39 students did not complete their courses by June 30, 2002.

For this "pilot semester," prior to the 2001-2002 school year that is the focus of the current evaluation, the completion rate in IVHS high school courses was 53%. It is helpful to include this Spring 2001 information to contrast it with information from the 2001-2002 school year.

For the 2001-2002 school year, IVHS made 69 high school courses and eleven AP Exam Review offerings available for potential enrollment. A total of 69 schools located in 97 Illinois cities and towns requested 390 student registrations in 58 one-semester courses during the regular 2001-2002 school year. Sixty-eight schools located in 44 Illinois cities and towns requested 2,720 registrations for AP Review. By August 2001, 173 high schools had signed up for current or future participation.

For Fall Semester 2001, 202 enrollments were requested for high school courses, of which 167 were for one-semester courses, and 35 were in the nine year-long courses. After drops by the deadline for withdrawal, IVHS counted 166 course enrollments and 1 audit enrollment in one-semester high school courses. Of these, 128 students completed the course, while 38 did not, for a Fall 2001 completion rate of 77%. In Spring 2002, there were 187 course enrollments and 4 audit enrollments in high school courses, after drops by the deadline. Of these, 155 students completed the course, and 32 did not, for a

Figure 1. IVHS semester course completions



completion rate of 83%. On average, there were about 6.1 students enrolled after the deadline, and about 4.8 who went on to complete the course, in each of the 58 one-semester courses. Actual course enrollments varied considerably. The combined completion rate for Fall 2001 and Spring 2002 was 80%, a considerable increase over the Spring 2001 completion rate of 53%. Trends in completions and non-

completions in one-semester courses over time are illustrated in Figure 1.

Some readers may find the discussion in this report of 'AP courses' and 'AP Exam Review' difficult to understand without a little background information. The Advanced Placement Program ® of the College Board, commonly called AP, allows students to take college-level courses while in high school, taught by high school teachers. Upon completing an AP course, students may take one or more exams administered by the College Board for that content area. Students may also sit for an AP exam without completing a course, but it is discouraged. Nationwide, about a third of AP course completers take the AP exam. If they pass the exam with a score of 3 or better, 11th and 12th graders can typically receive college credit or an advanced placement (hence the program name) upon university admission. Many universities add a point to the course grades earned in AP courses when calculating high school grade point averages. Therefore, students who complete AP courses and pass AP exams have an advantage in college admissions, and may get an early start on their college coursework.

Through the Advanced Placement Incentive Program (APIP), the U.S. Department of Education offers assistance to state education agencies in making online AP courses, AP Review exam preparation, and the actual AP exams available to low-income individuals. Illinois is among the states receiving APIP funding. A number of state departments of education have chosen to used part of their APIP funding to offer the AP Exam Review resources of Apex Learning to selected schools and students, as well as its AP high school courses. AP Exam Review includes diagnostic testing and personalized study plans in popular AP subjects and interactive expert assistance. AP Review is not intended for use by schools as a high school course. Students who are considering sitting for an AP exam typically use it during study periods or outside the instructional day.

As noted above, IVHS had over 2,700 registrations in AP Exam Review, an online test preparation resource, during 2001-2002. Around 2,000 of these registrants were high school students enrolled in AP courses in Chicago Public Schools (CPS). Through a collaborative effort of IVHS, the Illinois State Board of Education and CPS, free access to the online AP Exam Review was offered for eligible students, in preparation for AP exams. CPS has formed an 'eBrigade' of educators, administrators and technology professionals to lead this effort and prepare for the introduction of IVHS high school courses in Chicago schools in 2002-2003.

### **Summary of Evaluation Activities**

This final report presents the results of an evaluation of the Illinois Virtual High School (IVHS) by a team of four external consultants. The evaluation focus was Fiscal Year 2002 (July 1, 2001-June 30, 2002), which included the Fall 2001 and Spring 2002 semesters. Agreements were completed and evaluation work began in May 2002. Since the filing of the *Preliminary Report* for the external evaluation of the IVHS on June 15, 2002, the evaluators have undertaken a series of activities necessary to complete a *Final Report*. These activities are briefly highlighted below.

### **Highlights of evaluation activities since the Preliminary Report**

- Data Analysis Plan updated; links multiple sources of evidence to Evaluation Questions
- Data collection activities completed:
  - ? Administrator and Counselor Survey activities completed
  - ? Instructor Focus Group held during June IVHS Instructor Workshops, transcribed
  - ? Transcriptions made, Student Focus Groups held in December 2001, May 2002
  - ? Online Instructor Survey completed
  - ? Analysis of Illinois School Report Card and ISBE Title 1 Program data completed
  - ? End-of-Course Student Survey data from IVHS internal surveys obtained
  - ? Instructor Workshop Minutes obtained from IVHS
- Data analysis completed
- Results organized under Evaluation Questions
- Final Report and appendices completed
- Preliminary Report corrections made, amended version developed

### **Development of the Evaluation Questions**

Readers are referred to the *Preliminary Report* for items it contains, which generally are not duplicated in this *Final Report*. They include details about the evaluation team and contractual agreements, a plan for data gathering and copies of evaluation instruments and protocols. An amended version of the *Preliminary Report* has been developed, which corrects some minor inaccuracies in the original version.

The three primary purposes (or strategic goals) of IVHS were cited earlier, in *Evaluation Context*. As noted in the June 15, 2002 *Preliminary Report*,

During Year 2 of IVHS (July 1, 2001-June 30, 2002), the intention of the IVHS Steering Committee has been to address the first strategic goal, and plan for the second and third strategic goals. The first strategic goal relates to the implementation of the virtual high school. It is being pursued through activities under many of the IVHS program goals stated in the Preliminary Strategic Plan. The evaluators seek to study attainment of the first strategic goal, and general progress toward meeting the program goals in areas of current implementation.

The program goals, as stated in the *Preliminary Strategic Plan*, are goal statements for the ten areas of IVHS organization and operations. As with the strategic goals, the evaluators are focusing on evidence in program goal areas that are currently under implementation.

The evaluators sought to provide evidence and conclusions about the three key questions

about the IVHS, as stated in the contract signed by TA Consulting and IMSA:

- The extent to which IVHS goals are being met, in areas of current implementation
- The perceptions/experiences of the IVHS held by direct participants (students, instructors, site administrators, teachers)
- Evidence of student outcomes, and exploration of factors supporting or inhibiting success

This ongoing work was also intended to yield results in the following areas, as stated in the aforesaid contract:

- Lessons learned about "what works"
- Next steps for IVHS improvement

A series of evaluation questions were developed by the evaluators to guide their evaluation efforts. Wherever possible, instruments and existing data sources were used to gather or otherwise obtain multiple sources of evidence relevant to each Evaluation Question. The evaluators summarize their evidence under the Evaluation Questions in the Evaluation Narrative that follows this section. The last Evaluation Question is "5. What are some ''next steps'' for IVHS improvement?" Under this question, summary recommendations were presented by the evaluators, in relation to each of the previous evaluation questions, and across the questions as a whole.

The questions that guided this evaluation effort, organized under the three key questions behind the evaluation, as well as "lessons learned" and "next steps," are:

The extent to which IVHS goals are being met, in areas of current implementation

Evaluation Question 1A: Was there equitable access to IVHS courses?

Evaluation Question 1B: Was there evidence of the alignment, quality and rigor of courses?

Evaluation Question 1C: How effective were the technological infrastructure and central support systems of IVHS?

Evaluation Question 1D: How effective were local IVHS support systems?

Evaluation Question 1E: How effective were IVHS coordination mechanisms?

Evaluation Question 1F: How successful was IVHS in its dissemination and recruitment activities?

The perceptions/experiences of the IVHS held by direct participants (students, instructors, site administrators, teachers)

Evaluation Question 2A: What was the quality of the IVHS experience for students? Evaluation Question 2B: What was the quality of the teaching experience for IVHS instructors?

Evaluation Question 2C: What was the quality of professional development experience for IVHS instructors?

Evaluation Question 2D: What was the quality of the IVHS experience for participating schools?

Evidence of student outcomes, and exploration of factors supporting or inhibiting success

Evaluation Question 3A: What do we know about student outcomes? Evaluation Question 3B: What do we know about student success factors?

Lessons learned about "what works"

Evaluation Question 4: What are some lessons learned about "what works" for IVHS?

Next steps for IVHS improvement

Evaluation Question 5: What are some "next steps" for IVHS improvement?

# **EVALUATION NARRATIVE**

### Summary of Evidence by Evaluation Question

# **Evaluation Question 1A: Was there equitable access to IVHS courses?**

# School Report Cards, ISBE Records

Community type. Schools participated in IVHS in two ways during the 2001-2002 school year. Schools around the state, including a large number of schools in City of Chicago School District 299 (Chicago Public Schools) offered noncredit AP Review resources from IVHS to their students. Schools in many Illinois districts participated by offering IVHS high school courses, for high school credit. Schools or students not meeting poverty guidelines for scholarships paid \$49 for each online AP Exam Review class, while schools or students paid \$300 for IVHS high school courses. Among the non-Chicago schools offering high school courses, 47% were designated by as Rural, 35% were Suburban, and 18% were Urban schools, using the ISBE definitions of community type. The Chicago schools participating in AP Exam Review were 100 % urban, and located within the central city of the state's largest metropolitan statistical area.

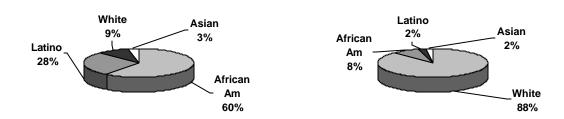
<u>Low-income status</u>. There was no direct data available to the evaluators on the income status of students enrolled in IVHS. One way to view access to IVHS courses is through the percentage of students with low income within a school that might potentially participate. Data was derived from the 2000-2001-Illinois School Report Card (ISRC) filed by each school that enrolled one or more students in an IVHS program in 2001-2002. According to the Illinois State Board of Education, low-income is defined as "students come from families receiving public aid, live in institutions for neglected or delinquent children, are supported in foster homes with public funds, or are eligible to receive free or reduced price lunches."

By averaging the percentages of low-income students across school, we can obtain a rough estimate of the income status of students potentially served by IVHS. The state average for low-income students in a school is 36.9%. Overall, the 54 schools enrolling one or more students in IVHS high school courses in 2001-2002 appear to have averaged around 18.4 % low income. Of the eighty-seven Chicago schools associated with IVHS, only 54 schools had students enrolled according to IVHS records, all in AP Exam Review. In the 54 Chicago schools with AP Review participants, the average percentage of low-income students was 78.6%. Rural schools enrolling students in IVHS high school courses had a low-income percentage average of 17.0%, suburban schools averaged 13.9% and urban schools had an average of 31.5%. About 11% of schools offering IVHS high school courses had a low-income student enrollment percentage average of 25% or higher, compared with 96.3% of the Chicago AP Review schools.

Race/ethnicity. The ethnic composite of those schools was 52.3% African American (Black), 12.5% Caucasian (White), 30.6% Hispanic or Latino, 4.4% Asian or Pacific Islander, and .2% Native American. This ethnic composite is fairly similar to that of Chicago K-12 schools as a whole, in which 51.6% of students are African American, 9.7% Caucasian, 35.2% Latino, 3.3 % Asian, and .2% Native American. In the 54 schools enrolling students in IVHS high school courses, the ethnic composite on average was 87.8% Caucasian, 7.6% African American, 2.4% Hispanic or Latino, 2.0% Asian or Pacific Islander, and 0.1% Native American. **Figure 2** shows ethnic composites for schools offering IVHS high school courses, and Chicago schools offering AP Exam Review.

Figure 2. Ethnic composite percentages of student enrollment, schools where students participated in AP Exam Review or high school courses through IVHS Chicago schools offering AP Exam Review

Schools offering IVHS HS Courses



Finally, two private schools were involved in the program according to IVHS data. These schools are not required to file Illinois School Report Cards. Demographic information was not obtained for the present study. In general, the data available to the evaluators did not allow highly accurate estimates of the demographic characteristics of actual IVHS participants.

# Local Administrator and Counselor Surveys:

Local school administrators (N =18) and counselors (N =18) available for telephone interviews in May and June 2002 were asked a number of questions related to access to IVHS courses during the 2001-2002 school year. Most administrators (67%) queried felt that administrators and counselors in their area were aware of the availability of the Illinois Virtual High School. The same percentage of counselors shared the view of administrators that their colleagues in other schools knew about IVHS. Administrators and counselors attributed that knowledge to mailings from IVHS, the Illinois State Board of Education and the Regional Superintendent of schools. Other sources of information mentioned were presentations at professional meetings such as the Illinois Principal's Association and personal communications among colleagues.

When asked about their perception of the population of students targeted by IVHS, eight administrators (44.4%) and six counselors (30%) mentioned rural students.

Economically disadvantaged students were mentioned once by administrators and once by counselors, nontraditional students were mentioned by four administrators and four counselors, and ethnic minority students were mentioned by one administrator and one counselor. Analysis of open-ended responses showed that the population of students most often mentioned by administrators (55.6%) and counselors (81.3%) were highly motivated and high achieving students who are capable of working independently.

Both administrators and counselors cited the need for enrichment and advanced courses not offered by smaller and more rural schools. Courses in Latin and Oceanography were offered as examples of those courses.

Of the 18 administrators interviewed, 14 felt that IVHS is reaching under-served populations, while 13 of 18 counselors felt that underserved populations were being reached. This seems consistent with a viewpoint that the target population is highly motivated students who need and desire courses that are not offered by smaller schools.

Barriers created by technology can also be seen as an equity issue. Administrators (72%) and counselors (67%) indicated that IVHS provided help with their technological difficulties but also indicated that technological difficulties had caused delays in starting, mainly in Fall 2001, and in maintaining course access.

Cost is another potential barrier to equitable access. Five administrators (27.8%) and six counselors (30%) indicated that they thought the IVHS courses were not cost effective. Courses from local community colleges, correspondence courses and other distance learning sources were mentioned as being more cost efficient.

# Student Survey:

School level data from IVHS high school course students who responded to Question 4, "Your home school or location," in 2001-2002 indicate that 59.5 % attended rural schools. About 21.4 % were from suburban schools, and 19.1 % from urban schools. The percentage of rural students increased during Spring semester, while the percentage of suburban students decreased, and urban student percentages remained fairly constant. During the year as a whole, 92.5% of the students who responded to the surveys identified themselves as White, 4.5% as Black, and about 1.5 % each as Asian or Hispanic/Latino. In Spring 2001, the percentage of Black students responding increased from 3 in 78 (3.5%) to 3 in 36 (7.5%), while the overall numbers of Black students were unchanged. Female students predominated in the Year Long courses, as 66.7% (8 of 12) respondents were women, while males provided the majority of survey responses in Fall and Spring semester courses. Overall in 2001-2002, 54.8 % of students responding were male, and 45.2% female.

Information from the *Student Survey* is of limited use in accurately estimating the community type, ethnicity, and gender of IVHS participants as a whole. Students completing end-of-course surveys were asked to self-identify on these items. While the large majority complied, individual survey completers are not identifiable. Students

taking multiple courses were counted more than once in the demographic totals. In addition, only 135 of 238 (56.7%) of IVHS high school course completers submitted a valid end-of-course survey during the 2001-2002 school year.

Another way to view access is through cost to the student. Based on the data from the 2001-2002 student surveys of those who responded, 75.2% of the students stated that the school paid their course tuition, 13.2 % said the student paid, and 11.6 % indicated 'Other'. A slightly higher percent of Fall 2001 semester students (78.3) indicated the school paid, while a lower percent (69.2) of Year Long students reported payment by the school. Fall 2001 semester students were less likely to report that they paid the tuition (9.6%) than Spring 2002 students (18.9%). A potential equity issue is home access to a modern computer on the Internet. Overall, 27.8 percent of responding students indicated they accessed their online course most often from home, compared with 72.2 % who said they accessed it more at school.

# Student Focus Groups:

Student focus groups provided confirmatory evidence on many issues, including some related to equity and access. Focus group students reported using a mix of their school's technological facilities, as well as working from home. Some talked about how they used IVHS courses to take courses that weren't available locally, either due to enrollment capacity or because the course was not offered. Others discussed taking courses to free up time in their face-to-face course load.

"Actually I was kicked out of my other class and there were too many people" (Student Comment 1212, Student Focus Group C Transcript).

"I just thought it would be interesting to take" (Student Comment 1217, Student Focus Group C Transcript).

"They needed [the credits] to graduate" (Student Comment 1216, Student Focus Group C Transcript).

"I did all mine at home" (Student Comment 1266, Student Focus Group C Transcript).

"We usually get a special hour [in school to complete IVHS work]" (Student Comment 1266, Student Focus Group C Transcript).

# Instructor Focus Group:

Focus groups held with instructors in late June 2002 also provided confirmatory evidence on access and equity issues. Instructors expressed concern that the cost and infrastructure needs may present barriers to some school districts, although no instructor had specific

knowledge of a student who did not participate because of technology access problems. Several cited the issue of equitable home access to computers.

"I think IVHS made the courses equally available, but some of the schools are going to have to do more upgrading to their technology before their students will have equal access" (Instructor Comment 2, IVHS Instructor Focus Group Transcript).

"I think the technology available is probably the key to access because if you have schools that don't have the infrastructure to support the course then, there is no access with students at that school, assuming that they don't have it at home" (Instructor Comment 4, IVHS Instructor Focus Group Transcript).

"...the [students] that I've had have done most of the work from home" (Instructor Comment 4, IVHS Instructor Focus Group Transcript).

"Because I know in some [city name] schools, access is a problem for the students to be able, even to be able to get online...um...in poorer areas of [city name] and [geographic area of the state] students don't have computers at home..." (Instructor Comment 372, IVHS Instructor Focus Group Transcript).

"I know in [school name] they had it and then the server went down and the server was down for six or seven weeks and the public library didn't have access 'cause I called to check..." ..."(Instructor Comment 378, IVHS-Instructor Focus Group Transcript).

"I think equipment as well as Internet access is becoming as crucial if you're going to try and promote more virtual learning" (Instructor Comment 522, IVHS Instructor Focus Group Transcript).

"I think the \$300 prevents some equity" (Instructor Comment 520, IVHS Instructor Focus Group Transcript).

# Summary:

In year 2 of IVHS, it appears that high school courses primarily reached students in rural areas, while the AP Exam Review opportunities reached a primarily urban audience. Low-income and minority students benefited primarily from AP Exam Review in 2001-2002. The data available to the evaluators allowed them to reach general conclusions about student demo graphics, but did not allow highly accurate estimates of the percentages of IVHS students by community type, low-income, ethnicity and gender.

Both administrators and counselors in schools offering IVHS high school courses felt the IVHS was reaching its target population. The majority of both groups appeared to believe the target population is highly motivated and high achieving students who need enrichment and advanced courses not offered by smaller and more rural schools. The target populations cited in IVHS strategic planning documents, as described in the introduction, appear to differ from those perceived by the administrators and counselors interviewed.

The cost of the courses in 2001-2002 may have been prohibitive for some students and schools. Sizable portions of the administrators and counselors interviewed said the courses were not cost effective, and some cited more cost efficient alternatives. In addition, about three in four student respondents indicated that the school district paid for their course tuition. There is no indication as to whether the student would have taken the course if they had to pay for the course themselves. The percent of students reporting self-payment increased in Spring 2002, while overall enrollments decreased.

Technology difficulties may have limited access of some students to the IVHS. While no student has been identified as not taking a course because of technology, students, instructors, administrators, and counselors expressed concerns regarding technology access and function.

# Evaluation Question 1B: Was there evidence of the alignment, quality and rigor of courses?

# Administrator and Counselor Surveys:

Of 18 local school administrators interviewed, 15 (83%) indicated that they felt the IVHS is offering a high quality curriculum. Sixteen (89%) of the eighteen local school counselors interviewed felt the IVHS curriculum was of high quality. There were some specific concerns expressed by some administrators and counselors. For example, one principal was concerned that a student took an AP review course through IVHS but received only a 2 on the exam. A counselor expressed concerned about students taking foreign language with no opportunity to hear the language spoken. Overall, however, administrators and counselors agree that the course work is of high quality. They were particularly complimentary of the instructors' availability to students and willingness to work with school administrators to be sure course grades were available on time.

Twelve (67%) administrators and 11 (61%) counselors indicated that they thought IVHS courses met the Illinois Learning Standards. Those administrators and counselors who did not answer this question positively indicated that they simply did not know and, thus, could not answer the question.

The majority of administrators (56%) and most of the counselors (67%) felt that IVHS courses included high quality assessment. Most of those who did answer 'yes' to this question indicated that they were not familiar with the assessments being used.

# Student Survey:

The student survey did not address alignment, but does provide evidence on quality and rigor. In general, the responses to the student survey for the Fall, Spring and Year Long semester cohorts on items related to quality and rigor were positive in nature. For example, students overall gave moderately positive ratings on items such as 'The learning goals of this course were clearly stated', 'Expectations about student performance were clearly communicated' and 'The course assignments were useful in learning the material.' While the response scale used in questions discussed in the previous section was a balanced one (Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree), the scale used on many of the questions related to quality and rigor (Excellent, Very Good, Good, Fair, Unsatisfactory) was skewed toward positive responses. Scaling issues are discussed in Appendix B1.

In regard to course rigor, most students indicated that the intellectual challenge was about right and their course was intellectually stimulating. However, more Fall 2001 students (26.1%) than Spring 2002 students (6.1%) were likely to feel that the pace of the course was 'too fast.' About 30.6% of Fall students responding said there was 'too much work for this course, compared with 19.4% of Spring students. If one uses amount of time spent on the course as a proxy for rigor, most students in the Year Long cohort spent more time per week on the course, those in the Fall spent less time, and those in the Spring cohort spent a more moderate amount of time on the courses. However, this item was somewhat difficult to interpret due to the use of a categorical rather than a continuous scale in the survey instrument. Of course, the moderate amount of study by Spring 2001 students may also reflect a better understanding of good study practices in online learning.

Overall responses to Likert scale (Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree) item statements regarding the quality of the instructor of the course were positive in nature, in essence stating agreement that the instructor did a good job, was well prepared, replied to questions relatively quickly, and gave individual attention as needed. Students gave their strongest level of agreement to the statements 'The instructor was knowledgeable about the topics presented' and 'The instructor shows interest in and enthusiasm for the subject.'

Students had mixed responses to the quality of interaction with the instructor. Reponses to open ended questions included not getting material graded and returned in a timely fashion, being unable to reach an instructor for ten weeks due to a bad e-mail address, and that the interaction was not as good because it was not face to face. One student complained about talking on the phone to the instructor only twice. For this student, and maybe others, expectations about contact and interaction were not clearly stated, given that on-line courses operate differently from traditional classroom courses. Other students

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indicated that interaction with the instructor was good. One student liked not being bothered by the instructor every day.

In regard to interactions with other students, responses to Likert scale (Excellent, Very Good, Good, Fair, Unsatisfactory) item statements indicate that there was not very good interaction, with an average rating of only 'fair.' Responses from open-ended statements are similar. One student said "I was the only person in my class, not a wonderful thing for class discussions." Of the 56 course sections offered during the year in which at least one student submitted a valid end-of-course survey, 22 had only 1 student who submitted a survey. Of course, only about 56.7% of students completed the surveys. The statement 'The online chatroom was an effective tool for communication within the class' was the lowest rated among the items on online course tools available to students.

Students also had concerns about the lack of interaction, specifically no personal contact with other students or the instructor. This is discussed further in the "quality of experience section." Part of this lower satisfaction with interaction is due to the smaller number of "coursemates" involved but may also be an indication of learning how to interact online and have it be productive and meaningful.

### Student Focus Groups:

The responses of students participating in focus groups about quality and rigor were mixed and specific to the courses they took. Students cited problems with broken weblinks and lack of access to necessary equipment (i.e., lab equipment). In terms of the course load, students seemed to agree that the number of assignments was acceptable, although many talked about falling behind in completing assignment by the due dates and struggling without an instructor present.

"It was all on-line [course textbook]. Like the worst part about that was, we were supposed to conduct the experiments as well as watch them. But we didn't have the ability to..." (Student Comment 1185, Student Focus Group C Transcript).

"I think [course name] was a little less difficult [than a face-to-face course]. Just 'cause you don't have the teachers' (Student Comment 1291, Student Focus Group C Transcript).

[the difficulty of IVHS compared to face-to-face courses] "[was] probably similar. 'Cause you got all your assignments already there that you know you have to get done" (Student Comment 1293, Student Focus Group C Transcript).

"In my experiences, there's a lot less work to do on-line, but it was made a little harder because you can't ask questions and you have to figure some of it out. I mean you can ask questions, but you won't get the immediate response" (Student Comment 680, Student Focus Group B Transcript).

# Instructor Survey:

In their survey, most instructors reported they were able to implement the course as planned (73.5%), while just over half (58.8%) felt they were able to meet individual learning needs (always or most of the time). Finally, just under half (46.9%) felt that they were very or mostly successful at in creating an effective online learning community.

In the focus groups, instructors generally responded positively to the quality and rigor of the courses. Most instructors found it necessary to modify the curriculum to meet the specific needs of their students and some courses were judged necessarily more rigorous than others. For example, the Career Planning course was cited as a less rigorous course while AP Physics and Math courses were cited as more rigorous. Instructors particularly noted the high quality of the Advanced Placement courses. IVHS instructors found it difficult to promote and sustain an effective online community—the "anytime" nature of the learning made dialogue between students difficult.

"Mine is less rigorous than the class I teach face-to-face. 'Cause I don't think they can get through as much material. Well, that's been my experience, that they don't get through as much" (Instructor Comment 35, IVHS Instructor Focus Group Transcript).

"I think it was appropriate. I mean given the time constraint that you -that each kid has to read through all the material otherwise they're not
gonna be able to understand it. And that doesn't necessarily happen in a
real time class. Uh, face-to-face you know you have this bulk of kids who
just rely on your information to them and therefore you can go faster"
(Instructor Comment 39, IVHS Instructor Focus Group Transcript).

"My [vendor name] course that I taught...[course name]...the way [vendor name] has it set up...I thought it was much too easy to be considered a high school class. But with me customizing the requirements...I thought it was appropriate" (Instructor Comment 40, IVHS Instructor Focus Group Transcript).

"...the [course name] some students had already had exposure to writing a resume, writing a cover letter um, in another class... so we changed some of the products that they could produce...But just going through the course, it was a lot of exploration, um, guidance counselor type things and the kids enjoyed it" (Instructor Comment 399, IVHS Instructor Focus Group Transcript).

"I thought the content and rigor of the [course name] course was very comparable to an in-class, traditional class...From the IVHS stand point, it was disappointing because you had virtually no use of technology to take advantage of it... as if you handed them a textbook and said you know, read chapter one then answer your questions and we'll quiz you and see how you did..." (Instructor Comment 408, IVHS Instructor Focus Group Transcript).

"[The] [vendor course] was extremely well written. The links were all up-to-date. Everything flew with that one. And then the other one which was [vendor name], yeah. That one worked too. It wasn't as difficult, obviously" (Instructor Comment 545, IVHS Instructor Focus Group Transcript).

I liked it [the [vendor name] course], but the students learned a tremendous amount at the same time...I loved teaching it (Instructor Comment 552, IVHS Instructor Focus Group Transcript).

"I had several conversations with students in the course ranging from a freshman to a senior. Most indicated that the course was challenging enough to keep them interested and they enjoyed the use of the on-line text (text name) that was used. I feel that the course was designed to allow multiple ability levels and multiple intelligences to flourish in an environment that was flexible to suit their needs and interests" (Instructor Comment, IVHS Instructor Survey).

# Summary:

In summary, it appears that instructors, administrators, and counselors are satisfied that the quality of coursework being developed by IVHS is good and will improve with experience. Students seem to have more concerns. While many of their complaints are course or instructor specific, there seems to be a general concern regarding the lack of interaction with other students and instructors. It would appear that a significant minority of course sections had too few students for meaningful student-student interaction. While part of this dissatisfaction can be attributed to the nature of distance learning, technological problems, and to smaller number of students with whom to interact, it may also be an indication that students had difficulty interacting meaningfully and productively online.

Given the low number of respondents, it is difficult to make an overall generalization, but there appears to be a systemic issue in the area of interaction. Specifically, this issue may be a result of the disparate expectations of students and instructors regarding the appropriate amount and type of interaction in IVHS courses.

# Evaluation Question 1C: How effective were the technological infrastructure and central support systems of IVHS?

# Local Administrator and Counselor Surveys:

All of the local school counselors interviewed and all but one of the local school administrators interviewed indicated that they had visited the IVHS website. The information they most commonly reviewed there was course descriptions. The second most common response was that they just browsed for general information.

Of the 18 administrators interviewed, 12 (67%) said that thought IVHS was building the necessary infrastructure while three (17%) said they were not. Eleven administrators (61%) thought IVHS was building the necessary infrastructure while 6 (33%) did not. With respect to technology, 13 administrators (72%) and 12 counselors (67%) thought IVHS was meeting student needs.

Thirteen (72%) administrators indicated that technical support had been received from IVHS while 5 (28%) said that they had not received support from IVHS. Similarly, twelve (67%) counselors indicated that technical support had been received from IVHS while 5(28%) indicated that they had not received support. Of the administrators and counselors who answered that they had not received support, most said that they had not sought such support. Those receiving support were generally very complimentary of the IVHS staff but many expressed concerns about long delays in getting their problems resolved.

# Student Survey:

Students in both the Year Long and Spring courses gave positive responses, on average, to statements concerning the technological infrastructure and support systems of IVHS, while Fall students gave somewhat less positive responses. The students agreed that they were able to use the online course without any pre-course training, able to easily navigate through the material, and overall the system was available whenever they logged on. In Year Long and Spring courses, the few students who responded they needed technical support also responded that they received the support in a timely fashion and, except in a few cases, it helped them get back on track. Fall students reported more problems with receiving support in a timely fashion, but when they did receive help, it usually solved their problem. Year Long students were less likely to say they needed technical support. They reported turning more frequently to IVHS staff, while Fall students contacted school staff more often, and Spring students contacted both equally.

In terms of technological infrastructure, students responded on average between 'Neutral' and 'Agree' that course and platform features such as audio and multimedia enhancements worked as intended. They gave similar levels of agreement that pages

loaded quickly, that the system was available whenever they logged on, and that they did not experience system crashes when logged on.

A number of survey items mentioned specific course tools, and while they were phrased in terms of whether each tool was used effectively in the class, the pattern of responses to them can also be seen as commenting on functionality. On these questions, a "Not Applicable" category was introduced, which was probably selected by many students who did not use the feature in question in their class. The items for which 'Not applicable' was most frequently selected were online bookstore (76), online notebook (55), online chat (55) document sharing (51) and webliography (50). The items for which 'Not applicable' was least frequently chosen were 'course website (5), icons (28), online message center (28) and threaded discussion (33). Clearly, the online bookstore function had limited relevance to these students.

Students who did not choose 'Not Applicable' gave the highest rating of 'Good' to 'Very Good' to "the course website is visually appealing" and the lowest rating of 'Fair' "the online chatroom was an effective tool for communication in the class."

While responses to many of these specific features of the system were positive, it should once again be noted that there was a bias towards positive responses in the response categories used (Excellent, Very Good, Good, Fair, Unsatisfactory).

# Student Focus Groups:

Students in the three focus groups described a variety of technical problems, most notably with uploading or submitting homework electronically. Some students mentioned broken links in their courses and server problems on the school's side, but seemed to take the technical problems in stride. The helpfulness of IVHS staff was also noted.

"There's been server problems even recently as a couple of days ago I couldn't even get in" (Student Comment 1025, Student Focus Group C Transcript).

"...When there's a server problem that just...it's just like it's really good until you have to like...either you need help or if like you're kind of behind and you try to make up for it then there'll be like an occasional server problem or something like that. I mean that's gonna happen no matter what" (Student Comment 1027, Student Focus Group C Transcript).

"I mean it could be your computer that you have a problem with or their computer or it could just be a glitch somewhere...That's just something you're not going to be able to control" (Student Comment 1126, Student Focus Group C Transcript).

"[IVHS support staff], the person I was calling, [IVHS support

staff]...Like she's real cool about it. Like when you call her..." (Student Comments 1028; 1030, Student Focus Group C Transcript).

"The beginning of the year kind of sucked because they were still trying to fix my [course name]" (Student Comment 1222, Student Focus Group C Transcript).

"After like a month they reformatted the whole site and so like I couldn't get access to it for like a day. And besides that like every once in a while like my Internet isn't working at home. So that's a pain, but besides that it's been pretty good" (Student Comment 843, Student Focus Group B Transcript).

"...one of the assignments for [course name] was to upload to a server over in [college name]...and try and get us to upload web sites that we were making onto web sites so we could learn how to do all that, but we could never get, I don't know for some reason it never worked. And she kept saying OK go ahead and access it...it never worked. And then eventually she just said that it couldn't work..." (Student Comment 1351, Student Focus Group C Transcript).

# Instructor Survey:

In open-ended narrative responses in the Instructor Survey, instructors expressed very positive experiences with IVHS administrative and support staff. Local school counselors and administrators also made positive references to IVHS staff members. These stakeholders specifically mentioned Sandi Atols, Jim Kinsella, Maria Gottschalk, and Matt Wicks. In this section only, we do not "mask" the identities of individuals cited in participant responses.

"There should be a category for EXCELLENT. Thank you Jim Kinsella!" (Instructor Comment, IVHS Instructor Survey).

"The people at the top are very helpful. Maria Gottschalk is wonderful. Most of my concerns were answered promptly ..." (Instructor Comment, IVHS Instructor Survey)

"Sandi Atols is very personable and helpful." (Administrator Comment, IVHS Local School Administrator and Counselor Survey)

"Matt and Maria are an awesome duo. They get back to you with an answer to a question at warp speed ..." (Instructor Comment, IVHS Instructor Survey)

In the responses to the Instructor Survey, support and technology issues were apparent, but not overwhelming.

The technology problems most cited by instructors were:

- 1) Gradebook problems (26.5%)
- 2) Feedback on assignments (23.5%)
- 3) Course navigation (20.6%)
- 4) Multimedia Video (17.6%)
- 5) Online Calendar & Student Progress tracking (14.7%)
- 6) Discussion Tools, Multimedia Audio, & Course Announcements (8.8%)
- 7) Other (23.5%)

In the open-ended portion of the survey, the instructors explained the "other" technical problems, focusing on problems submitting course work across the course platform and course providers, course navigation and design problems, support problems, compatibility problems, and difficulties with the gradebook.

The "posting" area proved a problem for both me and my students. This area was vital for us to view revisions and examples. For some reason, files posted would not post or would be deleted and lost. After 2 unsuccessful requests for assistance from the "canned content" provider, I reverted to e-mail attachments. As a result, we spent less time in the online class and more time with e-mails" (Instructor Comment, IVHS Instructor Survey).

I do not believe that the look and feel of the [vendor platform] can assist IVHS in creating a distinct and dynamic program. The "courseware" is like that of [vendor platform] and presumes the "lecture notes to html" format that has made the "free content" from universities useless to the new methods of learning. I'm saying that the IVHS currently lacks the vision needed to create engaging learning environments which will contribute to the transformation of education. This lack of vision is reflected in the selection of the [vendor platform]" (Instructor Comment, IVHS Instructor Survey).

I like the gradebook in [vendor name] much better than the [vendor platform]. From my point of view, it was also a very time consuming process to re-record grades for each student from one platform to the next and then periodically have to do another form for progress reports and final grades" (Instructor Comment, IVHS Instructor Survey).

Instructors related both positive and negative technical support experiences and suggested the need for a full-time helpdesk or technical "point person."

"...we have the instruments in place for that [best practices] to be shared. We just don't take...we don't take very good advantage of it yet" (Instructor Comment 67, IVHS Instructor Focus Group Transcript).

"I honestly think we're gonna have to expand our staff at the

administrative level. That you don't want to build layers of bureaucracy or anything but there are too few people doing too much work" (Instructor Comment 103, IVHS Instructor Focus Group Transcript).

"...to be effective in the future, they're just going to have to understand that there are certain jobs that need full time attention and they're working towards that...I think that there are problems that we can't even conceive of right now with [school district name] coming in. I mean with the numbers that they could bring to bear on this thing...So, I think that there's going to be with the growth of the program, it's gonna be really need to add staff" (Instructor Comment 106, IVHS Instructor Focus Group Transcript).

"It would be nice to have for the students a direct help link that they could send a question to and get a response to within a 24 hour span" (Instructor Comment 598, IVHS Instructor Focus Group Transcript).

"We need a full time help desk person. We, if we had that, you know, we unofficially have it, from what you were saying, Maria. If we had someone that was just a help desk person available to all ..." (Instructor Comment 108, IVHS Instructor Focus Group Transcript).

# Summary:

Direct participants in the IVHS process appear to generally agree that the IVHS technological infrastructure is basically effective, although technology problems and the limitations of the courseware and platform tempered their enthusiasm. In a technology-based program, technology problems will arise. Students, instructors, counselors, and administrators surveyed for this evaluation all indicated that problems arose and were frustrating. However, most agreed that IVHS was helpful in resolving the problems when asked. As a way of dealing more effectively with these issues, instructors suggested establishing a technical help desk and resource person. They did not appear to believe the current arrangements for technical assistance were sufficient.

# **Evaluation Question 1D: How effective were IVHS local support systems?**

# Local Administrator and Counselor Surveys:

Eleven (61%) administrators and 13 (72%) counselors at schools enrolling students in IVHS high school courses answered that they thought IVHS was meeting the academic needs of students. Two administrators (11%) and 1 counselor (6%) indicated that they

thought IVHS was providing any counseling or career guidance services to students. Of course, the model under which IVHS operates relies on the local Student Services Contact for these activities, as most administrators and counselors were apparently aware.

# Student Focus Groups:

One student's account of the helpfulness of her own local teacher mentor illustrates the importance of the support.

"Mr. [mentor teacher's name]...he's really active...he's been talking to me about it for the last couple months and like he checks in with me. I forward all my messages from my teacher and so he's seen all the messages and...I think he might have gotten a hold of her. He's been really helpful. He's kind of the one, like, on my back, I mean like, 'Are you getting your work done?' So that's been helpful" (Student Comment 908, Student Focus Group B Transcript).

# Student Survey:

Students responding to the Fall, Year Long and Spring end-of-course surveys on average gave responses between 'Neutral' and 'Agree' on items about the non-technical IVHS student services provided to them by their school. The items focused on student support functions rather than who provided them. Responding students gave ratings closer to '4' on the items 'School personnel made me aware of IVHS course offerings,' and 'School personnel assisted me in the registration process,' but rated local support in selecting a course and assistance with general problems somewhat lower. Spring students were somewhat less likely than Fall students to agree that 'School personnel (other than the instructor) maintained contact with me throughout the term.'

"Our course did not take advantage of all the features offered by the course. I also have a lot of technical background and found it easy to navigate and use the features offered." (Student comment, IVHS Spring Student Survey)

"I thought the program was poorly put together. I was no allowed to start until about three weeks into the course. My school never got the software that was needed to do two of the modules in my course. My schools internet was down for at least three weeks which made it impossible to do my course. The school would not allow me to get into my registered email account. This made it impossible to see the replies from my teacher ... " (Student comment, IVHS Fall Student Survey)

"This was the first time anyone had been in an online course before. It was a new experience for everyone." (Student comment, IVHS Year Long Student Survey)

# Instructor Survey:

Instructors rated the support from their own school quite highly in the survey:

IVHS Administrative Contact: 100% satisfactory or N/A IVHS Student Services Contact: 96.6% satisfactory or N/A

Technology Contact: 100% satisfactory or N/A

The comments related to their own school's support varied. Some instructors received release time to teach the courses, others indicated their own school's administrators appeared unaware or did not care about their involvement. There were no strong trends indicating any overt barriers presented by their schools for their participation, though one instructor reported that filters prevented access to IVHS.

"Awesome support and encouragement from all areas -- administration, tech people, and on-site IVHS mentor" (Instructor Comment, IVHS Instructor Survey).

I received one quarter release time to teach this course (standard load for a one semester course). (Instructor Comment, IVHS Instructor Survey).

"Our administration is very committed to online learning so I received any needed support plus daily encouragement from both the ISBE, IVHS, and site coordinator. MSN messenger is my friend!" (Instructor Comment, IVHS Instructor Survey).

"They didn't know I was doing this, although I tried to speak with a couple of administrators, and I don't think they cared" (Instructor Comment, IVHS Instructor Survey).

In addition to the need for a full-time helpdesk and technical contact person, instructors noted the need for more IVHS support staff as well as an IVHS coordinator to provide general orientation for schools, students, and student mentors. Though there is an online resource for instructors to share and trade ideas with each other, called Mentor Musings. Mr. Bruce Howell, a high school History teacher and IVHS instructor, maintains this site. However, it appears that instructors generally have not take advantage of it.

"He's responsible for, and he does, he's done a very good job having that tool [Mentor Musings] in place. And I think, I think we're still getting our feet wet and I forget to go there when I do and I don't see anything new, I don't leave anything new either, I leave" (Instructor Comment 69, IVHS Instructor Focus Group Transcript).

"I think I would appreciate...if we were e-mailed a form that just had all

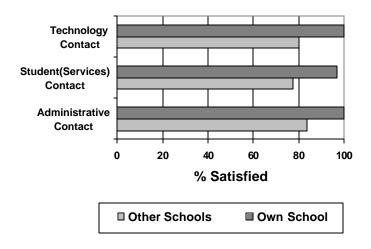
these categories: Students Name, Year in School...Who's the contact person. What's their number. What's the e-mail. What's the parent's name. What's their number. What's their work number" (Instructor Comment 119, IVHS Focus Group Transcript).

"Well, I see a big problem at the local school level um with mentors...I know they've been notified of [their IVHS responsibilities] or that this is your job responsibility... but it's not getting through...it'd be nice if there was just one person that went around and visited each school and said, "OK, I'm gonna be there on Tuesday afternoon. I need you to gather these people [mentors] together in the conference room, just bring 'em all together' "(Instructor Comment 428, IVHS Instructor Focus Group Transcript).

"But I think the schools really need that because I know all the documentation comes back...And there was a suggestion, oh let's do an on-line orientation. Well, if the on-line orientation is done like the kids do it. They go to the bottom of the page and they press next, they go to the bottom of the page ... and you know they may read the topic but they're not reading all that stuff in there. And I think that there is, there's a big gap there. And I think if those people would get the same training, and maybe not the extent we are, it would be more successful for the student and that's what this is all about" (Instructor Comment 432, IVHS Instructor Focus Group Transcript).

The results were somewhat less positive for support received by instructors & students at students' schools as reported by-instructors in their online survey.

Figure 3. Instructor satisfaction with local support



IVHS Administrative Contact: 83.3% satisfactory or N/A

IVHS Student Services Contact: 77.4% satisfactory or N/A

Technology Contact: 80% satisfactory or N/A

Figure 3 shows instructor satisfaction with the local support provided by school contacts, both at their own school, and at other schools where students were enrolled. The Majority (82.4%) of instructors were very (26.5%)

or somewhat (55.9%) satisfied with their instructor-student interactions.

Instructors seemed to have mixed experiences across the schools. In some cases, schools provided consistent, supportive mentoring for students. In other cases, support for the student by the school contact appears to have been non-existent. A few instructors noted that the guidance counselors seemed to be a better "fit" as the mentor rather than an administrator. All comments seem to reflect the vital role the mentor plays in the learning process.

"Guidance counselors were the main contact. They stayed in touch via e-mail and phone and were helpful in "nudging" students who were not logging on" (Instructor Comment, IVHS Instructor Survey).

"Actually, the support varied from school to school. Most contacts were interested in their student's success and were helpful. A minority were less interested" (Instructor Comment, IVHS Instructor Survey).

"I had a difficult time contacting people at my students' schools when I had concerns or questions" (Instructor Comment, IVHS Instructor Survey).

"I feel that most schools "dump" their students on the IVHS staff. There usually is little technology support and very few times do the personnel at the school contact me to see how the students are progressing" (Instructor Comment, IVHS Instructor Survey).

"Some mentors were very supportive and others I never heard from, even once" (Instructor Comment, IVHS Instructor Survey).

"I've only had really good experience with my academic support people and even the tech support people so the only one time and I can see where this would break down would be where the principal assumes the responsibility and then they don't actually, they're not going to do anything more and they didn't designate. So that was a problem" (Instructor comment 308, IVHS Instructor Focus Group Transcript).

# Summary:

Local schools appear to have provided variable levels of support for the IVHS process. Instructors generally rated support at their own school highly, but were less positive about support provided at their students' schools. Awareness-raising and counseling activities appear to have been fairly effective, but follow-up support was less so. The local teacher who acts as a student mentor also appears to be an important component of the program. However, counselors sometimes played these roles instead. In all, local support services appear to be a "work in process" for IVHS. Some of the issues

surrounding local support systems and IVHS coordination mechanisms can be considered policy or political issues. Some methods of addressing support and coordination issues will be discussed in Next Steps.

# **Evaluation Question 1E: How effective were IVHS coordination mechanisms?**

# Local Administrator and Counselor Surveys:

Fifteen (83%) of local school administrators and 100% of local school counselors interviewed indicated that they had been directly involved with IVHS in their school in some way. The first question each was asked was "How satisfied are you with IVHS?" The responses of both groups follow:

Response Category	Administrators	Counselors
Very satisfied	9 (50%)	6 (33%)
Somewhat satisfied	3 (17%)	5 (28%)
Somewhat dissatisfied	4 (22%)	4 (22%)
Very dissatisfied	2 (11%)	3 17%)
Totals	18 (100%)	18 (100%)

As can be seen, only 6 administrators and 7 counselors expressed dissatisfaction with IVHS. From their comments, that dissatisfaction seemed to arise mainly from difficulties with the technology which both groups thought took too long to resolve (as noted previously under 1C), difficulty in matching school schedules to IVHS course schedules, cheating on the part of students, getting grades on time, and a general lack of knowledge of what was going on in the course on the part of the school.

# Instructor Survey:

Instructors reiterated the importance of student mentors as well as the need for better communication between schools and IVHS instructors. Stories about mentors not knowing they have been assigned an IVHS student or even what IVHS is illustrate the importance of improved communication with (and within) the schools.

"some of those [mentors] know about it but there, there's others that, and I know...I know they've been notified of this or that this is your job responsibility... but it's not getting through. And I call a mentor or I call a contact and they have no clue they are a mentor or a contact. 'How did you get my e-mail? Who gave you my phone number...um...well what is my job responsibility? What am I supposed to do?' And I'm like on the phone digging out the handbook and reading the description" (Instructor Comment 428, IVHS-Instructor Focus Group Transcript).

### Summary:

It appears that IVHS has made a fairly good start in providing coordination assistance to schools, instructors and students. Many of the difficulties described by students, instructors, counselors, and administrators seem to be related to not knowing what is going on, or to coordination of schedules.

# Evaluation Question 1F: How successful was IVHS in its dissemination and recruitment activities?

Review of documents provided by IVHS shows extensive efforts to promote the IVHS activities through presentations and workshops around the state, and by electronic means. These efforts included the initial announcement of the initiative in the Governor's State of the State address early in 2000, a cyber-conference to announce the opening of registration in December 2000, and periodic mailings to school administrators.

# Local Administrator and Counselor Surveys:

The majority (67%) of local school administrators and counselors indicated that they think IVHS is upholding statewide policies and procedures for development and implementation of the virtual high school. Most of those who did not answer positively indicated that they were not familiar with the plan.

Thirteen (72%) of counselors and 15 (83%) of administrators said they thought IVHS is doing an adequate job of communicating and disseminating information about the program. Those same 15 administrators and 16 counselors (89%) said that they thought information coming from IVHS is accurate. However, only 50% of administrators and 56% of counselors had knowledge of any marketing campaigns undertaken by IVHS.

All of the counselors surveyed and 15 (83%) of the administrators indicated that they had provided information about IVHS to their students. The three administrators who said they had not given information to students did indicate that they had passed information on to their counselors for distribution to students.

The most common method of dissemination was to list IVHS courses in the registration materials provided to students. Some schools made special announcements in homerooms or at school assemblies. In some cases, an announcement was made in a school newsletter to parents.

# Student Focus Groups:

Responses by both students and instructors in their focus groups indicate that the dissemination of information about IVHS and its courses is not systematically and

broadly available. Word of mouth through instructors, counselors, and other students is the primary way that students and instructors learned about IVHS. Instructors suggested more targeted dissemination through counselors and local school tech coordinators.

"She's getting a lot of 'em that are saying, 'IVHS? What's that?' You know, I mean they...they still need to do the road show. They still need to go out and feed some principals a nice lunch and explain to them what's going on" (Instructor Comment 233, IVHS Instructor Focus Group Transcript).

"[I got the information] Through the man that was just in here, [an IVHS instructor located at the same school]" (Student Comment 550, Student Focus Group B Transcript).

"I was in the library doing the focus thing that they did in the Fall and I overheard 'em talkin' about it" (Student Comment 553, Student Focus Group B Transcript).

"Counselors" (Student Comment 1005, Student Focus Group C Transcript).

# Summary:

Review of documents provided by IVHS shows fairly extensive efforts to promote the initiative through presentations and workshops around the state, and by electronic means. Administrators and counselors in local schools believe that they are disseminating information about the availability of IVHS courses to their students. In many cases, they indicate that IVHS course availability is included in the registration packets provided to students. In other cases, and in particular, in schools where IVHS course work is used only for exceptional students, the availability of IVHS courses is handled on an individual basis. Some students and instructors, however, appeared to perceive the dissemination of IVHS course availability within schools as unsystematic and limited.

# **Evaluation Question 2A: What was the quality of the IVHS experience for students?**

# Local Administrator and Counselor Surveys:

As noted previously, eleven (61%) administrators and 13 (72%) counselors interviewed agreed that IVHS was meeting the academic needs of students. Overall, they thought the course work was of high quality, and complimented the instructors' availability to students and willingness to work with school administrators to be sure course grades were available on time.

In schools where several students were taking the same course, some administrators and counselors expressed concern about a higher than normal level of cheating. Part of the problem seemed to relate to a perception that no one in the school really knew what was going on in the course.

#### Student Survey:

Overall, students agreed that taking an on-line course was an effective way to learn. During the 2001-2002 school year, of those submitting valid responses, 75 students (58.6 %) stated they would take another on-line course, 26 (20.3 %) stated that they would not, and 27 (21.1 %) were unsure. In other words, about 6 in 10 would take another class online. The opened ended statements indicate that there are one-time or individual concerns that need to be addressed. Given the diversity of the statements and that highlighting any one may over emphasize that one comment, all are provided by question in Appendix B. Themes from those comments into specific categories are provided below with some discussion.

Reading through the open responses the most prevalent theme appears to be individual differences among the students and among their reactions to different courses and instructors). Students stated that they liked the personal freedom and being able to go at their own pace, while other students thought the freedom was too much and they procrastinated. It appears these students were looking for more structure. Some students did not like the lack of personal contact, yet some liked not being bothered. Students indicated that the classes were very stimulating and made them think in new ways, yet others felt they spent their time just memorizing and were bored.

In the areas of technology, support, instructors, and course organization there were positive and negative comments that ranged from extremely technical -- about the home DSL connection being faster, web links that did not work, number of passwords needed, -- to the more practical, such as more firm deadlines for assignments. Some students liked the layout of their course, others had trouble finding information and felt the directions could have been clearer. Some students were quite happy with theirs—instructors, while others were not.

#### Student Focus Groups:

Student had positive and negative experiences with their online courses. Generally speaking, students enjoyed the convenience, independence and self-paced aspects of the online courses.

"I think it all depends on like what you were in 'cause I found ... the Oceanography class to be really, really easy. But Web page Design..." (Student Comment 1110, Student Focus Group C Transcript).

"But then like the quizzes and tests and stuff would be really difficult. (Student Comment 1113, Student Focus Group C Transcript).

"Creative writing, I loved that. But the web page design was quite hard, but it's, it was fun though" (Student Comment 1116, Student Focus Group C Transcript).

"I like it so far...right now...my opinions are kind of different than some of these others because we got started really late in ...the on-line course. The [course name] got started I think, what, two, three weeks later than it was supposed to. So right now we're not fully into it. But I think as the year progresses I'll enjoy it more because...I enjoy [course name] ..." (Student Comment 412, Student Focus Group A Transcript).

"A lot of repetition from my particular course because we have to read a selection, write a notebook entry and we have write, like 15 to 20 notebook entries. And that's all we do for like a long time and then (inaudible) so it's, kind of gets boring after a while" (Student Comment 455, Student Focus Group A Transcript).

"The time was really convenient to be able to do it on your own time and do it whenever you have time" (Student comment 545, Student Focus Group B Transcript).

"It got me another free hour" (Student Comment 542, Student Focus Group B Transcript).

"I thought it was gonna be harder than what it was because I'm not very computer literate, so, the class over the Internet kind of sounded" (Student Comment 1302, Student Focus Group C Transcript).

Students had mixed experiences with instructor-student interactions.

"He called me like once a week. Asked me how I was doing and he emailed probably like every other day" (Student Comment 1119, Student Focus Group C Transcript).

"No, Oceanography, [instructor name] had no contact with the students at all except for return graded homework. You could ask him questions, and he would give you like a one line e-mail answer and it just wouldn't be enough..." (Student Comment 1121, Student Focus Group C Transcript).

"...But [instructor name] was pretty cool. She's responded within a day for every single question that I've ever asked her so. Even if she didn't

know the answer. She always responds" (Student Comment 1122, Student Focus Group C Transcript).

"I sort of had a bad experience with it because uh, when we were doing it I wasn't sure, it didn't like, in the thing they give at the very beginning like how you were graded..." (Student Comment 1310, Student Focus Group C Transcript).

"Three times a week I'm supposed to discuss something. I didn't even know there was a discussion group..." (Student Comment 1400, Student Focus Group C Transcript).

"At the beginning of the year I try to stick by the due dates, but then I'm like. I had so many problems with the site 'cause I wasn't able to get stuff done on time. And then I'm like, just gradually I just, even when there were problems I just, you know I would take my time. And...she never would say anything and then, and then she did the whole thing when I like, try to get caught up again. She gave me a whole bunch of assignments to do by like, e-mailed me Thursday and I'm supposed to have them in by Saturday. So I didn't have 'em in but she was like if you, it won't be counted if they're late. But I put them in there anyway just because I didn't have enough time to do 'em' (Student Comment 814, Student Focus Group B Transcript).

#### **Instructor Focus Groups:**

Instructors were mixed in their impressions of students' experiences; some were positive and some negative. However, statements indicate that there was a strong impression that their students were surprised at the difficulty of completing an online course successfully.

"Uh, the experience the students have from the personal feedback that I got back... was that the course was very, very good and learned a lot from it... Then you just have the student variable, which you always have even in the live school" (Instructor Comment 314, IVHS Instructor Focus Group Transcript).

"I think it's frustrating ... I've done two classes now, you know seven or eight kids, and I would say almost every one of 'em got frustrated by just the ...the portal issue and ...I think it takes a very special student and I think we are trying to railroad a lot of kids into this that maybe this isn't the best route for them to learn, although it's convenient for them to learn. Maybe this isn't the medium for 'em to learn in. And uh, I think it frustrates 'em and if...if you're not willing to, you know, there's got to be some willingness on both sides to really to do something together" (Instructor Comments 451, 453; IVHS Instructor Focus Group

Transcript).

"I think my students were generally surprised that it wasn't a cake walk" (Instructor Comment 455, IVHS Instructor Focus Group Transcript).

"...but once they realize what they had to do...I had four students perform just wonderfully" (Instructor Comment 461, IVHS Instructor Focus Group Transcript).

#### Summary:

About 6 in 10 students felt online learning was an effective way to learn. Overall, it appears that some students do very well in the self-paced, self-directed atmosphere of the online course. Some students do not handle it well. In some courses, there appeared to be a particular problem with student interactions with instructors and other students.

Administrators and counselors generally felt that IVHS and the instructors were meeting the academic needs of students. However, a few of them expressed concerns about cheating. In Next Steps, we discuss some strategies for dealing with this issue.

## Evaluation Question 2B: What was the quality of the teaching experience for IVHS instructors?

#### Instructor Survey:

The majority of instructors were very (60.6%) or somewhat satisfied (33.3%) with the overall IVHS experience. Half of the instructors thought the course took more (23.5%) or a lot more (26.5%) work than a regular course. Just under half (48.5%) of the instructors thought the commitment was more (30.3%) or a lot more (18.2%) than expected.

In terms of tangible benefits to instructors, there was no clear majority in any one area of benefit for instructors except developing new technical skills (73.5%). About half reported acquiring new teaching or assessment skills (52.9%) as well as collaborating with teachers from other schools (50%), while over one-third reported acquiring new subject matter skills (38.2%) and collaborating with experts (35.3%).

In the open-ended items, most instructors did not elaborate on specific benefits, but their comments reveal that interacting with and serving the students was the most satisfying aspect of their IVHS participation.

"got to work one on one with lower level students" (Instructor Comment, IVHS Instructor Survey).

"Personal and professional growth" (Instructor Comment, IVHS Instructor Survey).

"the online contact with the students and being able to help them with the course even though there was no face-to-face contact. I felt I really got to know the students from their online comments, emails, and phone conversations with them and their parents" (Instructor Comment, IVHS Instructor Survey).

"It is very satisfying to work with students in a new format which allows them to be successful. Many of the students in my courses did not do well in the traditional classroom, but they were able to be successful in an online course. The one-on-one teacher-student format seems to bring the best out in them. The students also had more control over their learning styles, work schedule, etc. Personally, I enjoy the virtual format as an instructor" (Instructor Comment, IVHS Instructor Survey).

Teachers commented on a variety of areas in their discussions of the most unsatisfying aspect of their experiences. Communication between instructors, IVHS, schools and students was noted. Instructors also discussed policies and procedures related to registration, reporting information about students before the course begins, and delays in getting paid. A few instructors mentioned being dissatisfied with the features of the vendor platform or the online courses, while others were struggling with the unique teaching demands of an online course.

"The lack of rubrics for the [vendor name] courses concern me...I think rubrics need to be established so consistency could be attained..." (Instructor Comment, IVHS Instructor Survey).

"The variety of schedules across the state needs to be addressed...For students to actively collaborate, they should at least start and end the course together. Related to this, we need to know about our student's schedules up front (i.e. start/end dates, length of time per day they have earmarked for the course). These logistics need to be better communicated to teachers" (Instructor Comment, IVHS Instructor Survey).

"Limited ability to interact with students in an asynchronous online course, limited use of current technology in the course (copying a textbook into web pages is not a good way to develop an online course), low standards for schools using reported grade results (an IVHS teacher can't fail a student no matter how low their measured competency level), poor (for all practical purposes none) screening of student candidates means taking on students that are not ready (by a wide margin) for an

online class, ineffective scheduling/registration that results in students starting the course widely apart in time which means a classroom "community" is much more difficult to establish than it should be" (Instructor Comment, IVHS Instructor Survey).

"There is a lack of communication on all parts (staff & administration). I truly believe that everyone is doing their best. In the future, I would like to know exactly when I will be getting paid. Also, we need more time to prepare for the semester with our course (which at this point I know would be very difficult)" (Instructor Comment, IVHS Instructor Survey).

"The content provided by [vendor name]" (Instructor Comment, IVHS Instructor Survey).

"Not being able to use some of the techniques that I would use in class to motivate my students" (Instructor Comment, IVHS Instructor Survey).

#### Instructor Focus Groups:

In the focus groups, instructors reiterated their dedication to IVHS.

"The overall evaluation of IVHS, I would say you could look around and see the same, almost everybody who was here two years ago is still here. You know, nobody's quitting this" (Teacher Comment 198, IVHS Instructor Focus Group Transcript).

"There's a lot of dedication" (Teacher Comment 199, IVHS Instructor Focus Group Transcript).

And in the Spring face-to-face teacher workshop, instructors generated a list of eleven tangible benefits as IVHS instructors (IVHS Instructor Workshop Minutes, 6/25/02).

- 1. Professional growth as a teacher
- 2. Increased opportunity to elaborate lessons
- 3. On cutting edge
- 4. Extra income
- 5. Carry over to real time teaching
- 6. Flexibility and timing
- 7. Career flexibility
- 8. Mentors for teachers
- 9. Nice laptops, scanner and printer
- 10. Collaboration with like-minded professionals; statewide networking
- 11. Lifelong learning

#### Summary:

Overall, 93.9% of instructors responding to the Instructor Survey indicated that they were somewhat or very satisfied with their IVHS experience. About 3 in 4 believed they had developed new technical skills. Successfully interacting with and serving students appeared to be the most satisfying aspect of their IVHS experience. Problems in communication with IVHS, schools, and students, issues with policies and procedures, and perceived limitations of the courseware and platform were among the least satisfying aspects of their experience. However, instructors made clear their interest in helping IVHS succeed.

# Evaluation Question 2C: What was the quality of professional development experience for IVHS instructors?

#### Instructor Survey:

In the statistical analysis, no clear trends emerged for whether more professional development was needed. Over half of the instructors were satisfied with the training provided (57.6%) but quite a few (42.4%) would like the training extended.

The open-ended items suggest that instructors would appreciate more face-to-face time with their IVHS colleagues to plan and discuss instructional issues. In addition, instructors would like more time for review and feedback about their course curriculum before the start-date. Finally, some instructors have technical support needs that they believed more training would address.

"An informal forum in which IVHS teachers DIALOGUE with each other to overcome specific obstacles. This might take the form of case studies. For instance, I would have loved to brainstorm (with my colleagues) ways to actually create and nurture online learning communities. The one PD workshop we had was not very effective - we were treated as passive receivers of information doled out by (in some cases) non-expert individuals in disparate roles. This field is so new that there may not be any experts. We are all professionals, so it would have been better for us to put our heads together to address specific concerns" (Instructor Comment, IVHS Instructor Survey).

"It would have been nice to have seen the class material before the summer workshop so that I could have asked questions specific to the course and made some changes before the students ever saw it" (Instructor Comment, IVHS Instructor Survey).

"Extensive training on the [vendor name] platform similar to the 4 week

[vendor name] platform training class (online)" (Instructor Comment, IVHS Instructor Survey).

"There were times when a "hands on" session was given. Since my computer knowledge is limited, I needed more of this at certain times like when I wanted to get into the automatic grading system" (Instructor Comment, IVHS Instructor Survey).

#### Summary:

The training and networking opportunities provided to instructors by IVHS appeared to be of good quality. Instructors were satisfied with the training provided, but many wanted more. They provided valuable suggestions for further training that will be discussed in Next Steps.

## Evaluation Question 2D: What was the quality of the IVHS experience for participating schools?

#### Local Administrator and Counselor Surveys:

Once again, the responses of both counselors and administrators to the question "How satisfied are you with IVHS?" are presented in the table below:

Response Category	Administrators	Counselors
Very satisfied	9 (50%)	6 (33%)
Somewhat satisfied	3 (17%)	5 (28%)
Somewhat dissatisfied	4 (22%)	4 (22%)
Very dissatisfied	2 (11%)	3 (17%)
Totals	18 (100%)	18 (100%)

As can be seen, about 67% of administrators and 61% of counselors surveyed at schools offering IVHS high school courses said they were somewhat or very satisfied with IVHS, while 33% of administrators and 39% of counselors expressed dissatisfaction. Issues that might cause dissatisfaction related to coordination issues were discussed under Evaluation Question 1E.

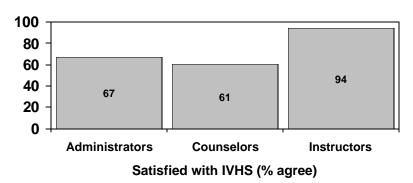
These included technology problems that both groups thought took too long to resolve, difficulty in matching school schedules to IVHS course schedules, cheating on the part of students, and a general lack of knowledge of what was going on in the course on the part of the school.

In addition, administrators were concerned about the cost of IVHS courses. Counselors expressed concern about the cost, and accreditation of the courses. One administrator said his school would not use IVHS again because of the cheating problem. Because of cost,

lack of success by remedial or lower-achieving students, or cheating, several said they would use IVHS only with highly motivated students.

In general, both groups seemed to feel that IVHS provides a valuable service to small and rural schools where course offerings are limited in that better students can get the enrichment courses that would not otherwise be available. Larger schools may have

Figure 4. Satisfaction of some key participants with IVHS



made more limited use of IVHS in part because as one counselor said, "We feel we can do a better job teaching the same course here."

Figure 4 shows the overall satisfaction levels of administrators, counselors and instructors with IVHS.

#### Summary:

Administrators and counselors were generally satisfied with IVHS, but this sentiment was not universal. Technical, scheduling, and supervision problems were cited. Some saw the cost of IVHS courses as a barrier. Some schools planned to provide more limited access for a variety of reasons. However, both administrators and counselors at schools offering IVHS high school courses felt that IVHS provided a valuable service to small and rural schools.

## **Evaluation Question 3A: What do we know about student outcomes?**

Due to the commissioning of this evaluation late in the school year to be studied, and the lack of availability of individual student achievement data, direct measures of student achievement were not available for analysis by the evaluators. Some indirect evidence about student outcomes is presented here.

#### Student Survey:

Responses to Student Survey Question 35, 'I achieved the stated goals of this course,' showed that about three in four students who responded to this item believed that they

had made good to excellent progress in meeting course goals, while 23.5% gave a less positive response. This item probably provides the best indirect evidence from the student survey. Of course, all respondents to the end-of-course surveys were course completers. The student surveys do provide good evidence of some of the problems encountered by survey respondents in successfully completing their courses, as described in earlier sections of this report.

#### Instructor Survey:

The direct student benefits most frequently reported by instructors were new subject matter skills, new technology skills, and engaging in new kinds of learning activities (80% or more noted these benefits). About 50% collaboration with other students, while 12% said students were taking fewer courses from teachers outside their expertise.

In the open-ended items, only a few instructors elaborated on student outcomes, mentioning college credit, individualized learning, and personal growth as outcomes.

"Earned college credit, and start college with cak." (Instructor Comment, IVHS Instructor Survey).

"Personal growth and accomplishment" (Instructor Comment, IVHS Instructor Survey).

"one on one instruction" (Instructor Comment, IVHS Instructor Survey).

#### Instructor Focus Groups:

In the focus groups, instructors noted the value of taking an online course in general as a positive outcome that prepares students to be life-long learners as well as for post-secondary education.

"They're learning a lifelong skill. Using a computer and learning their way around the Internet. It's something that doesn't pay off as in objectives or some immediate goals" (Instructor Comment 324, IVHS Instructor Focus Group Transcript).

"Maybe learning to think about education different. That, we preach lifelong learning to them until we're blue in the face but you know, just the fact that now we're connected them with that knowledge base that's out there and it's going to continue to be out there after they've walked across the stage with their (inaudible) piece of paperwork. You know maybe we can make an impression on them that learning really is lifelong and this is one way that you can access it" (Instructor Comment 325, IVHS Instructor Focus Group Transcript).

"The confidence level of working on-line and what that environment's all

about 'cause they're going to do it in their job wherever they go" (Instructor Comment 478, IVHS Instructor Focus Group Transcript).

"...but they can learn to take more charge of their own work" (Instructor Comment 483, IVHS Instructor Focus Group Transcript).

"In some respects...and for some of them it prepares them for college because many of the colleges, state colleges, there are on-line courses so they'll have some clue as to what's going on when they get in there. 'Oh, I've done this before.'" (Instructor Comment 480, IVHS Instructor Focus Group Transcript).

#### Summary:

Direct measures of student achievement were not included in this evaluation, due to a lack of availability of individual achievement data for linking to evaluation results. About 3 in 4 of the course-completing students who responded to end-of-course surveys felt they achieved the stated goals of their courses. Instructors felt students learned new subject matter and technology skills, and engaged in new types of learning. They noted that taking an IVHS course helped prepare students for college and for lifelong learning.

## **Evaluation Question 3B: What do we know about student success factors?**

#### Local Administrator and Counselor Surveys:

Local school administrators and counselors consistently responded that students who they considered to be highly motivated, high achieving, self-directed and/or who liked to work independently appeared to do well in IVHS courses.

#### Student and Instructor Focus Groups:

Instructors and students alike reported student motivation as the most important factor in student success. Other important elements to students were good teacher-student communication, staying on-task and not missing deadlines, and forging relationships with other students in the class as important elements to success. Good technology access was seen as an enabling factor. Instructors agreed that communication was key in addition to students having a clearer understanding of the rigor and expectations of the course before enrolling. More comprehensive student orientation was recommended by instructors and requested by students.

"You almost have to have kind of like a pioneering spirit when you go into it that you're willing to do something away from everybody else and

just for your own...I guess, self motivated, your own personal satisfaction of what's going to keep driving you through this whole process. And really the ones I've had that have been very high in the class have not been my very top performers. They've been average kids that just took it and just you know bulldogged it through it" (Instructor Comment 171, IVHS Instructor Focus Group Transcript).

"I think the ones that did better in my class had more access to the computer. And I know that's not a student characteristic but it's reality. Not just at school, they had it available at home as well" (Instructor Comment 173, IVHS Instructor Focus Group Transcript).

"Motivation. It's a virtual class, but they're real students. They have all the same problems that they have in the regular schools. And if you don't have a good mentor or contact in the school to work with sometimes it can be even worse than what they are during the normal in-school (inaudible) the class" (Instructor Comment 317, IVHS Instructor Focus Group Transcript).

"Well, parents have been a very valuable asset for me...there were...cases where the parents were just, they were maybe more involved in the virtual classes than they were in the classes where they actually, at the school where they attended..." (Instructor Comment 318, IVHS Instructor Focus Group Transcript).

"All of mine passed the course but and it's not because I'm a brilliant teacher, but a lot of it was I was able to keep an ongoing communication ...It's gonna be a lot tougher when there's maybe 25 in the class. But I still think that its one of the keys to success" (Instructor Comment 624, IVHS Instructor Focus Group Transcript).

#### Summary:

Local school administrators and counselors consistently responded that students who they considered to be highly motivated, high achieving, self-directed and/or who liked to work independently appeared to do well in IVHS courses. Instructors and students alike reported student motivation as the most important factor in student success. Good online course study skills also appeared to be an important factor. More comprehensive student orientation was recommended by instructors and requested by students.

## **Evaluation Question 4: What are some lessons learned about "what works" for IVHS?**

#### **Evaluation Context Information:**

The completion rate of students enrolled in one-semester IVHS courses rose from 53% for the Spring 2001 pilot semester, to a combined completion rate for Fall 2001/Spring 2002 of 80%.

#### School Report Cards, ISBE Records:

IVHS served both rural and low-income urban students through its strategy for promoting credit-worthy high school courses and AP Exam Review resources.

#### Local Administrator and Counselor Surveys:

Administrators and counselors surveyed at schools offering IVHS high school courses helped identify some lessons learned on 'what works' in IVHS. About 83% of administrators and 89% of counselors surveyed felt that IVHS courses were of high quality. A majority felt that IVHS was meeting student academic and technical needs.

Many administrators and counselors felt that IVHS was providing a valuable service to small and rural schools where course offerings are limited. As was previously noted, about 6 in 10 IVHS high school course students responding to the end-of-course surveys during 2001-2002 attended a rural school, although these figures include some multiple course students who responded more than once. About half of the schools enrolling students in IVHS high school courses were rural.

#### Instructor Survey:

Local support for IVHS varied in quality, but "what works" included the support provided to those IVHS instructors who were also high school teachers, by their own school's staff. As noted previous, instructors gave ratings of 100% satisfactory or "Not Applicable" to the support provided by administrators and technology contacts at their school, and a 96.6% rating to student services contacts.

#### Instructor Workshop:

In a spring face-to-face meeting, instructors worked with IVHS staff to discuss their impressions of what is working well for IVHS. The dialogue generated thirteen separate ideas (IVHS Instructor Workshop Minutes, 6/25/02).

- 1. Support from IVHS
- 2. Dedication of teachers and staff
- 3. Community of teachers who support each other
- 4. Flexibility of schedule
- 5. [Course] offerings available

- 6. Core areas seem to be growing in student enrollment
- 7. Technology
- 8. Course structure [course name]
- 9. Flexibility to change ([course name] structure)
- 10. Connection with students
- 11. Relationships with mentors.
- 12. [Vendor name]
- 13. Curriculum

The support of IVHS staff was reiterated in the focus groups.

"Having the person there, Maria, that you could always call when something was wrong and she would channel you to the right place to get the answer. Uh, that was the main good part was having somebody that could be contacted" (Instructor Comment 285, IVHS Instructor Focus Group Transcript).

Instructors also generated a list of "advice" for new instructors, which emphasized patience, communication, and flexibility (IVHS Instructor Workshop Minutes, 6/25/02).

"Patience is a virtue. It's new, be patient."

"Communicate, communicate, communicate—build good rapport with student, parent, guardian, use multiple methods (email, phone, email, etc.)."

"Be flexible – time, adapting to individuals and schools, scheduling, different start and end dates, means of communication."

"What works" for students may be considered to be the student success factors discussed earlier. According to students, the success factors include motivation, self-discipline, and close contact between instructors and students.

"People who don't need like supervision, because it's hard because you get easily distracted" (Student Comment 1067, Student Focus Group C Transcript).

"Can't be too lazy" (Student Comment 1274, Student Focus Group C Transcript).

"And like kids...able to discipline themselves to actually work on it every week" (Student Comment 665, Student Focus Group B Transcript).

#### Summary:

Administrators and counselors surveyed at schools offering IVHS high school courses helped identify some lessons learned on 'what works' in IVHS. They felt that IVHS courses were of high quality. Many felt that IVHS was providing a valuable service to small and rural schools where course offerings are limited. The high percentage of rural students completing IVHS courses helps illustrate this success.

Local support for IVHS varied in quality, but "what works" included the support provided to those IVHS instructors who were also high school teachers, by their own school's staff. Instructors have worked with IVHS staff and as a group to identify lessons learned about "what works" in IVHS. They identified support from IVHS, the dedication of teachers and staff, and a supportive community of IVHS instructors as among key things that already work well in IVHS. They have also developed "advice" for new instructors. Through surveys and focus groups, students have helped to identify "what works" for students, in terms of student success factors and barriers to success.

## **Evaluation Question 5: What are some "next steps" for IVHS improvement?**

There are a number of areas where the findings of this formative evaluation suggest needed short-term improvements for the IVHS. It is hoped that IVHS will have the opportunity to act on the suggested improvements it considers of highest priority in time for the Spring 2003 semester, or for Fall 2003.

#### Evaluation Question 1A: Was there equitable access to IVHS courses?

Traditionally, distance learning programs have provided high school course opportunities to small and rural schools, and supplemental or enrichment opportunities to urban schools. Year 2 (2001-2002) of IVHS generally followed this approach. It provided a source of valuable opportunities to the mainly small and rural schools it served mainly with high school courses. It also provided useful AP Exam Review test preparation resources to students in Chicago schools, and in other schools around the state. Urban schools often serve a high percentage of low-income and minority students. They face great challenges in helping these students achieve their full potential, and in preparing students for further success in education and in life. The evaluators believe that while IVHS is not a panacea, it can be an important tool helping students succeed in urban schools, as well as in small and rural schools.

• In year 3, develop strategies for providing equitable access to IVHS high school courses to urban, low-income, minority and underserved students. These strategies should include both methods to recruit students who have the potential to succeed in online learning, and to support them in achieving successful IVHS course completion. The latter is more challenging, and should be the main focus of these efforts.

In Year 2, IVHS, ISBE and Chicago Public Schools teamed to offer Advanced Placement (AP) Exam Review test preparation resources at no cost to eligible students in Chicago schools. AP Review was also available at a low cost in schools elsewhere. As noted in the Introduction to this report, the AP Review access in Chicago appears to have been an equitable access strategy to increase minority and low-income student success in earning AP credit, thereby increasing GPAs and prospects for attending a good college. Increasing equitable access to the benefits of the AP process has been an important focus of state and federal AP efforts.

 Study the Advanced Placement (AP) Exam sitting rates, pass rates, and scores of students who participate in the AP Exam Review through IVHS. Such a study would require collaboration between the College Board, the AP course provider, IVHS, ISBE, Chicago Public Schools and any researchers involved. It is the main way that IVHS can provide accountability data related to the impact of participation in AP Review.

## Evaluation Question 1B: Was there evidence of the alignment, quality and rigor of courses?

The scope and timeframe of the evaluation, and the wide variety of courses offered, did not allow for extensive review of the alignment of courses with the Illinois Learning Standards, nor ratings according to established instruments on course quality. Multiple sources of evidence suggested that overall, the courses offered through IVHS were of relatively high quality. Instructors, administrators and counselors were very positive about this, while students had more concerns. It would appear that a significant minority of course sections had too few students for meaningful student-student interaction. There appears to be a tendency to offer more courses than can be justified based on student enrollments.

- Establish a systematic internal review of selected IVHS courses, including courses developed by IVHS and by for-profit vendors and non-profit providers. The Concord VHS model is a useful model to consider in establishing such a review.
- If defensible empirical evidence of course quality is needed for accountability purposes, have multiple trained raters use established measures of course quality, and submit the results to statistical analysis.
- Seek to increase the proportion of course sections with justifiable enrollment levels

## **Evaluation Question 1C: How effective were the technological infrastructure and central support systems of IVHS?**

Direct participants in the IVHS process appear to generally agree that the IVHS technological infrastructure is basically effective, although technology problems and the limitations of the courseware and platform tempered their enthusiasm. Participants said IVHS was helpful in resolving the problems when asked. Instructors suggested the establishment of a dedicated technical help desk and resource person, to help deal with technology-related issues.

• Subject to financial and planning limitations, consider establishing a "one-stop" dedicated technical help desk and resource center by FY 2004. This service should provide online and telephone assistance during the times when students and instructors are most likely to be working on courses, including early mornings, evenings, and Sundays. It might be added as a supplement to existing services, but should provide prompt (1-day) access to technical solutions.

#### **Evaluation Question 1D: How effective were local IVHS support systems?**

Local schools appear to have provided variable levels of support for the IVHS process. Instructors generally rated support at their own school highly, but were less positive about support provided at their students' schools. Awareness-raising and counseling activities appear to have been fairly effective, but follow-up support was less so. In all,

local support services appear to be a "work in process" for IVHS. The evaluators have learned that an improved policies and procedures manual has been developed for use by local districts, and consider this a step in the right direction.

In some other states where statewide virtual schools are offered, more formal agreements between the virtual school and participating school districts have led to some degree of standardization of the support services offering by local districts, and also to a sense of clearly stated responsibilities of the virtual school to the local district. They also have paved the way for effective periodic reporting on issues such as the ethnicity, low-income status and school progress of students enrolled in the virtual school. It is understood by the evaluators that political considerations, specifically the philosophy of local control of schools, may make it challenging to establish these kinds of formal memorandums of agreement between IVHS and participating schools in Illinois.

- Incorporate the new manual for local schools into more extensive school orientation activities that include a focus on key issues in local support such as those surfaced in this evaluation activity.
- Consider ways to define and support the roles of local mentors, who appear to be an important element in IVHS student support
- Consider avenues to establishing more effective agreements of roles and responsibilities between IVHS and local schools. If feasible, target supplemental assistance to those schools which are seeking to follow their agreements, and discourage participation by those that are not following their agreements.

### **Evaluation Question 1E: How effective were IVHS coordination mechanisms?**

It appears that IVHS has made a fairly good start in providing coordination assistance to schools, instructors and students. Many of the difficulties described by students, instructors, counselors, and administrators seem to be related to not knowing what is going on, or to coordination of schedules.

• In offering more extensive orientation activities to participating schools, address issues such as matching IVHS and school course schedules, co-coordination by IVHS and the local school with teacher mentors, administrator and counselor awareness of student progress in courses, and the prevention and control of student cheating. The evaluators would be glad to share any resources they have on these topics, that IVHS has not yet reviewed.

### Evaluation Question 1F: How successful was IVHS in its dissemination and recruitment activities?

Review of documents provided by IVHS shows fairly extensive efforts to promote IVHS through presentations and workshops around the state, and by electronic means.

Administrators and counselors in local schools believe that they are disseminating information about the availability of IVHS courses to their students. Students and instructors, however, see the dissemination of IVHS course availability as unsystematic and limited. Increased dissemination within the schools appears important. It appears that some schools are targeting particular students for IVHS participation. IVHS has proposed an "all learners" orientation to its activities, but the question of whether it should establish such a policy with local participating schools is beyond the scope of this evaluation. It is also important to keep in mind that only schools that effectively support IVHS students are likely to have successful outcomes.

- Consider methods of facilitating the internal dissemination by schools of IVHS
  information to all teachers and the students the school desires to reach, such as
  brochures or online resources.
- Include internal dissemination strategies in the school orientation program.
- Consider strategies for identifying and targeting schools that are most open to the IVHS concept, and which are most likely to support IVHS students. Use that information to perform target marketing of the program. While keeping the IVHS open to all schools, consider using the strategy outlined under 1D above to focus resources on targeted schools that demonstrate commitment to IVHS.

### Evaluation Question 2A: What was the quality of the IVHS experience for students?

About 6 in 10 students felt online learning through IVHS to be an effective way to learn. Overall, it appears that some students do very well in the self-paced, self-directed atmosphere of the online course, while others do not handle it as well. Many cited a lack of positive interaction with the instructor and other students as a key concern. There was evidence of difficulties in practicing good study skills, including skills in meaningful and productive online interaction, especially in the larger Fall 2001 cohort.

- Consider offering a more comprehensive student orientation. The orientation should also include a reasonable approximation of the time and effort the student will have to expend in order to complete in the course.
- As a screening mechanism, consider offering a mandatory short course where students receive feedback and modeling on positive study skills, including effective online interaction.
- Continue the research on key attributes and motivators of successful IVHS students, expanding on the existing work by IVHS and the external evaluators. Include this information in counselor orientation materials.

### Evaluation Question 2B: What was the quality of the teaching experience for IVHS instructors?

Overall, 93.9% of instructors responding to the Instructor Survey indicated that they were somewhat or very satisfied with their IVHS experience. Successfully interacting with and serving students appeared to be the most satisfying aspect of their IVHS experience. Of course, the very limited enrollments in some classes may have limited this source of satisfaction for some IVHS instructors. While instructors faced and overcame many challenges, including technical, communication, and policy and procedure issues, they made clear their interest in helping IVHS succeed.

- The one-stop" dedicated technical help desk and resource center suggested under 1C should include a focus on resolving technical issues for instructors on a priority basis, within 12 hours.
- Seek to sustain the current enthusiasm and motivation of the cadre of IVHS
  instructors by continuing on-site training activities, ensuring continued access to
  experienced co-instructors, and implementing strategies to ensure that class
  enrollments are neither too high or too low for effective online interaction.
  Consider modifications to payment procedures that will make them more timely
  and consistent.
- Build on the existing research on what makes instructors more successful in the 'online' teaching environment, by expanding the existing work by IVHS to identify key attributes of successful instructors. Use them to screen potential instructors and develop online orientation materials.

## Evaluation Question 2C: What was the quality of professional development experience for IVHS instructors?

The training and networking opportunities provided to instructors by IVHS appeared to be of good quality. Instructors were satisfied with the training provided, but many wanted more. They provided valuable suggestions for further training. As some instructors noted, technical support needs will decrease with more extensive technical training.

- Continue to provide the kinds of networking opportunities and technical training afforded instructors at the Spring 2002 workshop.
- Schedule review and feedback by instructors on their course's curriculum content into professional development activities, well before the course start-dates

## Evaluation Question 2D: What was the quality of the IVHS experience for participating schools?

Local school administrators and counselors were generally satisfied with IVHS, but this sentiment was not universal. Technical, scheduling, and supervision problems were cited. Some saw the cost of IVHS courses as a barrier. Some schools planned to provide more limited access for a variety of reasons. However, both administrators and counselors at schools offering IVHS high school courses felt that IVHS provided a valuable service to

small and rural schools. The evaluators think the August 13, 2002 announcement lowering the cost of IVHS courses is a very positive step in the right direction, although long-term IVHS will need to consider sustainability issues.

- The one-stop" dedicated technical help desk and resource center suggested under 1C should include a focus on helping school technology contacts resolve technical issues within 24 hours
- The strategies suggested under (1D) and (1F) above might help increase the satisfaction of participating schools, by improving the coordination process.
- In addition to implementing strategies for lowering the apparent cost of IVHS to participating schools, such as the new lower course cost in 2002-2003, seek to increase the perceived value of student participation in IVHS, in comparison with other opportunities.

#### Evaluation Question 3A: What do we know about student outcomes?

Direct measures of student achievement were not included in this evaluation, due to the lack of a system for obtaining individual achievement data and linking it to evaluation results. About 3 in 4 of the course-completing students who responded to end-of-course surveys felt they achieved the stated goals of their courses. Instructors felt students learned new subject matter and technology skills, and engaged in new types of learning. They noted that taking an IVHS course helped prepare students for college and for lifelong learning.

As noted under (1D), more formal agreements between IVHS and participating districts may help pave the way for effective periodic reporting on student outcomes such as course grades and important identifiers such as ethnicity, low-income status and school progress of enrolled students. However, it is the understanding of the evaluators that IVHS is not technically a 'school.' The participating school grants high school course credit and maintains related student information. Given the partnership between IVHS and ISBE, it may be simplest for participating schools to agree that ISBE can link their confidential information on individual student outcomes and characteristics to evaluation data gathered via IVHS, for research purposes. Chicago Public Schools might make internal arrangements to achieve the same purposes.

• Consider confidential data sharing and linking through ISBE to help document impact on achievement and other outcomes.

#### Evaluation Question 3B: What do we know about student success factors?

Administrators and counselors consistently responded that students who they considered to be highly motivated, high achieving, self-directed and/or who liked to work independently appeared to do well in IVHS courses. Instructors and students alike reported student motivation as the most important factor in student success. Good online

course study skills also appeared to be an important factor. More comprehensive student orientation was recommended by instructors and requested by students.

• As suggested under (2A) above, consider offering a more comprehensive student orientation, and perhaps a short course to encourage effective online study skills.

### Evaluation Question 4: What are some lessons learned about "what works" for IVHS?

Administrators and counselors surveyed at schools offering IVHS high school courses helped identify some lessons learned on 'what works' in IVHS. They felt that IVHS courses were of high quality. Many felt that IVHS was providing a valuable service to small and rural schools where course offerings are limited. The high percentage of rural students completing IVHS courses helps illustrate this success. Strategies suggested under (1B), (1D) and (1F) can help build on these lessons learned about "what works."

"What works" in local support for IVHS included the support provided to those IVHS instructors who were also high school teachers, by their own school's staff. Instructors and IVHS staff worked together to identify lessons learned about "what works." They identified support from IVHS, the dedication of teachers and staff, and a supportive community of IVHS instructors as among key things that already work well in IVHS. They have also developed "advice" for new instructors. Through surveys and focus groups, students have helped to identify "what works" for students, in terms of student success factors and barriers to success.

- Seek to develop profiles of successful IVHS school practices, that can be used in implementing the school targeting and support strategies described in (1F).
- Incorporate the feedback from instructors on "what works" into screening tools
  and orientation materials used to help future instructors learn how to be a good
  on-line instructor.

#### **Next Steps Across Evaluation Questions 1 through 4**

- Consider building on this evaluation and the existing internal student course survey, by developing a unified set of online surveys of key participants, such as students, instructors, school contacts for administrative, student, and technological support, and mentor teachers.
- Use these surveys to periodically gather assessment data for formative evaluation and accountability purposes. Identify key performance indicators to monitor over time, across these survey tools and available sources of student outcomes information.