A Comparison of Student and Teacher Perceptions in Performance of Wisconsin's Model Academic Standards for Information & Technology Literacy by the End of Grade 8 for the School District of Gilman

by

Bonnie S. Lang

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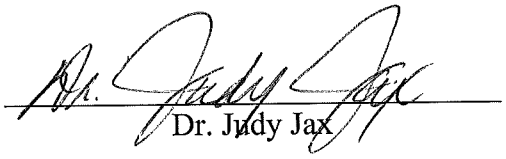

Dr. Judy Jax

The Graduate School

University of Wisconsin-Stout

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The Graduate School
University of Wisconsin-Stout
Menomonie, WI

Author: **Lang, Bonnie S.**

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ABSTRACT

To continue to receive state and federal funding for services offered relating to instructional media and technology, the School District of Gilman is required to demonstrate that all students are proficient in tasks related to Wisconsin's Model Academic Standards for Information & Technology Literacy (WITLS) by the end of Grade 8. At the beginning of the 2004-2005 school year, the School District of Gilman implemented an information and technology curriculum to formally begin at Grade 4 and to continue through Grades 5, 6, and 7. A final district requirement for graduation is that all students pass a one-semester computer applications course offered and taken by most students in Grade 9. The School District of Gilman has chosen to provide technology-rich instructional units and project-based or performance-based assessments to satisfy the collecting and reporting requirement for the state. For the present analysis, literature

examining the contribution library media and technology programs have on student success in learning 21st Century skills was reviewed along with data that examines national and state levels of technology use by students. In addition, technology literacy assessment tools were reviewed to compare with instructional implementation as an alternative in meeting the state's reporting requirement. For this study, teachers and students were surveyed to gather data to determine the difference in their perceived level of competency in meeting the WITLS standards and their corresponding performance indicators. Composite scores were determined for all four standards to compare teacher and students perceived level of student ability. All data collected will be used by the district technology committee and the administration in determining program support and curricular changes.

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TABLE OF CONTENTS

.....Page

ABSTRACT..... ii

List of Tables vii

Chapter I: Introduction.....1

Statement of the Problem.....5

Purpose of the Study.....6

Definition of Terms.....7

Limitations of the Study.....9

Methodology.....10

Chapter II: Literature Review.....11

Chapter III: Methodology.....19

Subject Selection and Description.....19

Instrumentation.....19

Data Collection Procedures.....21

Data Analysis.....21

Limitations.....22

Chapter IV: Results.....23

Item Analysis.....24

Chapter V: Discussion.....105

Limitations.....112

Conclusions.....113

Recommendations.....114

References....116

Appendix A: Wisconsin Model Academic Standards for Information and Technology Literacy....119

Appendix B: Framework for 21st Century Learning....127

Appendix C: 2009-2012 District Information and Technology Plan....128

Appendix D: Student Survey on WITLS....129

Appendix E: Teacher Survey on WITLS....139

Appendix F: Survey Response Tables....151

List of Tables

Table 1: Category Key of Student Responses to Survey 20

Table 2: Category Key of Teacher Responses to Survey 20

Table 3: Data Comparison for Standard A Media and Technology A.8.1 25

Table 4: Data Comparison for Standard A Media and Technology A.8.2 31

Table 5: Data Comparison for Standard A Media and Technology A.8.3 35

Table 6: Data Comparison for Standard A Media and Technology A.8.4 41

Table 7: Data Comparison for Standard A Media and Technology A.8.5 45

Table 8: Data Comparison for Standard A Media and Technology A.8.6 47

Table 9: Data Comparison for Standard B Information and Inquiry B.8.1 50

Table 10: Data Comparison for Standard B Information and Inquiry B.8.2 53

Table 11: Data Comparison for Standard B Information and Inquiry B.8.3 57

Table 12: Data Comparison for Standard B Information and Inquiry B.8.4 61

Table 13: Data Comparison for Standard B Information and Inquiry B.8.5 65

Table 14: Data Comparison for Standard B Information and Inquiry B.8.6 69

Table 15: Data Comparison for Standard B Information and Inquiry B.8.7 72

Table 16: Data Comparison for Standard B Information and Inquiry B.8.8 74

Table 17: Data Comparison for Standard C Information and Inquiry C.8.1 77

Table 18: Data Comparison for Standard C Information and Inquiry C.8.2 80

Table 19: Data Comparison for Standard C Information and Inquiry C.8.3 82

Table 20: Data Comparison for Standard C Information and Inquiry C.8.4 85

Table 21: Data Comparison for Standard D The Learning Community D.8.1 89

Table 22: Data Comparison for Standard D The Learning Community D.8.2 92

Table 23: Data Comparison for Standard D The Learning Community D.8.3 96

Table 24: Data Comparison for Standard D The Learning Community D.8.4 100

Table 25: Composite Scores for Standards A, B, C, and D 105

Table 26: Survey Results for Standard A Media and Technology 151

Table 27: Survey Results for Standard B Information and Inquiry 155

Table 28: Survey Results for Standard C Independent Learning 160

Table 29: Survey Results for Standard D The Learning Community 162

Chapter I: Introduction

The School District of Gilman is a rural PreK-12 school district located in west central Wisconsin. Currently, the district enrolls 489 students and, after a period of declining enrollments, is now experiencing a time where enrollments are predicted to remain static for the next five years. The district has a large home-schooled population with 72 students currently living within the district but not attending formal educational programs provided by the district. Fifty-one percent of the district families qualify for free or reduced lunch. District funding is dependent upon continued enrollment for state reimbursement and for qualifying for grants under federal acts Title II-D, E-Rate, and other funding sources for districts in low socioeconomic areas.

For the past ten years, the district placed an emphasis on its technology programs and integrating technology into all curricular area activities. In 2002, the district approved an information technology program to provide formal training with a structured curriculum aligned to the Information and Technology Literacy Standards (Appendix A) set forth by the Wisconsin Department of Public Instruction (DPI) with benchmark years at the end of 4th, 8th, and 12th grades. As this program moved forward by integrating technology into the curriculum, teaching staff received training on use of networked systems, on use of an office productivity program, and in integrating technology into curricular activities and projects.

In 2004, the district underwent an evaluation coordinated by the Cooperative Educational Services Agency 10 (CESA 10) in which Gilman is a district member within its service area. CESA 10 staff provided training to staff on enGauge assessment strategies for the 21st Century developed by the Metri Group to assess the level of

integration of technology into curricular areas. The Gilman enGauge team traveled to its chosen sister school and performed a complete program evaluation on technology integration. In return, the sister school's enGauge team came to the district and provided a reciprocal service in assessing Gilman's level of integration.

According to the on-site executive summary resulting from the program evaluation using enGauge performance identifiers, the School District of Gilman demonstrated strengths in the areas of *educator proficiency with effective teaching and learning practices*, in *robust access, anywhere, anytime*, and in *digital age equity* by moving beyond the awareness stage to the more advanced stages of exploration and transformation. The district was less proficient in *systems and leadership*, *shared vision*, and *effective teaching and learning practices* even though one area of *effective teaching and learning practices*, environment, was found to be moving into the exploration level, the third level of four for measuring implementation. At the time the program evaluation indicated that research and alignment with standards was at the level of awareness, the first level of integration. Based upon the results of the enGauge program evaluation, the School District of Gilman moved forward in developing the district's technology plan needed for state and federal funding of technology services to include teacher training on incorporating 21st Century skills into curricular activities.

In 2006, the School District of Gilman received approval of its technology plan from the state to cover the timeframe 2006-2009, and hence proceeded to implement the action plan developed to achieve the five goals selected. The five goals covered improving student achievement, mapping the curriculum, setting teacher competency standards, and improving administrative systems and lifelong learning. Since, teachers

and staff have received additional training on network usage and productivity software. Key staff also attended workshops provided by CESA 10 to learn more about mapping, aligning, integrating, and assessing technology for 8th Grade literacy as directed by the ESEA Title II-D initiative, *Enhancing Education through Technology*. Teacher training was given within the district to provide staff with additional information on WITLS, on mapping curriculum, in documenting standards, and to offer ideas and suggestions for integrating technology into the curriculum.

Before school began in the fall of 2008, staff members were surveyed using a tool developed by LoTi Connection, Inc. (2005). The survey is titled Level of Technology Implementation (LoTi) and it was taken by 74% of the district's teaching staff members. One of the findings drawn from the LoTi survey approximates the degree to which each participant is either supporting or implementing instructional uses of technology in a classroom setting. Based upon teacher responses, the median LoTi Level for Gilman School District corresponded with a Level 2 (Exploration). At Level 2, the instructional focus emphasizes content understanding and supports mastery learning and direct instruction.

Other findings from the LoTi survey indicated that teaching staff feel comfortable supporting or implementing either a subject-matter *or* learning-based approach to instruction. In a subject-matter based approach, learning activities tend to be sequential, student projects tend to be uniform for all students, the use of lectures and/or teacher-directed presentations are the norm as well as traditional evaluation strategies. In a learner-based approach, learning activities are diversified and based mostly on student questions, the teacher serves more as a co-learner or facilitator in the classroom, student

projects are primarily student-directed, and the use of alternative assessment strategies including performance-based assessments, peer reviews, and student reflections are the norm. The findings demonstrated growth in the use of technology for various activities in all curricular areas to include elementary, core subjects, and elective courses, but that the majority of the teachers were not outstanding in the area of implementing technology into the curriculum PreK-12. At this point, the district was challenged to determine why WITLS implementation seemed lacking.

In January, 2009, the district technology team continued its efforts to establish district goals in information and technology that provided students with skills needed for 21st Century learning, met state initiatives, and created an information and technology plan that will qualify the district for state and federal funding. The technology committee went back to work to develop its current three-year plan for 2009-2012 which was now required by the Wisconsin DPI to be a combined plan for both library media and technology (2003). The four main goals developed were to (1) promote 21st Century skills, (2) maintain and upgrade technology and media systems, (3) continue current programs and implement new initiatives to provide learning opportunities for work, for home, or for leisure, and (4) create a better information exchange between the school, students, staff, and community. Goal one was deemed a priority in part to meet the national mandate to districts "to assist every student in crossing the digital divide by ensuring that every student is technologically literate by the time the student finishes the eighth grade" (No Child Left Behind, Part D, 2001).

School districts needed to be able to prove if audited by the Wisconsin DPI that this is in fact the case or face non-approval of its technology plan and subsequently a loss

of funding because an information and technology plan is not in place. It was the belief of the district, with all the training provided for both students and teachers, that implementation of technology-rich units of instruction were well underway without having to reteach the technology skills but only apply the technology skills in curricular activities. The district fully expected documentation of skill attainment and information and technology applications for funding requirements to be in place. The survey given to teachers in the fall of 2008 indicated that implementation of information and technology literacy skills was at the Exploration stage—a second stage out of four stages of implementation. Because of the extensive training provided to both students and teachers, the School District of Gilman sought data on the difference in perceptions of teachers and students in the ability to perform information and technology literacy skills by the end of the 8th Grade.

Statement of the Problem

This study is to help address the first of the four goals in the School District of Gilman's technology plan—promote 21st Century skills. Objectives set for the goal include meeting the WITL standards and integrating 21st Century skills into the curriculum so that students learn to research, analyze, interpret, and communicate effectively. The district selected to use representative information and technology-rich instructional units and project-based assessments to satisfy DPI reporting requirements. The district has annually invested in teacher training, equipment, and a networked infrastructure to provide an environment conducive to learning using technology as a tool. At this point in the district's technological growth, it was the opinion of the administration and the technology committee that our students have access to a wide

variety of technology and that they should be able to adequately demonstrate a level of proficiency that is a strong basis for future educational needs, workplace skills, and personal growth in a rapidly changing society. However, LoTi survey results indicate that the district teachers have not moved into an advanced implementation stage but were still at an exploration stage. The district wanted to know if other factors may be keeping teachers from implementing information and technology skills into curricular activities.

Purpose of the Study

The main purpose of this study was to determine the difference between teacher and student perceptions of student proficiency in demonstrating 21st Century skills as they pertain to WITLS. Teacher perceptions may be an indicator for lack of implementation in curricular activities and in lower student expectations. Skills identified as having a greater difference in perception than 10% will be reviewed for improvement through teacher training and curriculum modifications. It is the responsibility of the district to continually assess its educational programs and extracurricular activities to determine if students are receiving instruction and experiences that will benefit them in learning now and for future educational and professional endeavors. The School District of Gilman provides structured information and technology curriculum to students beginning in Grade 4, and students continue receiving instruction with integrated activities in core classes through Grade 7. Classes offered in Grades 7-8 through the Technology Education department also provide training and integrated projects in the use of digital cameras, scanners, as well as in the use of software programs for graphic and video editing. Prior to Grade 4, students are developing information and technology skills in school through regular classroom instruction and are dependent upon the level of skill

and integration provided by the individual teacher, access to instructional materials, and time allocated in the elementary computer lab. All teachers in Grades PreK-12 have received information on WITL standards and are expected to refer to the standards when developing curricular activities. In addition, the district modified its teacher evaluation rubric in 2008 to address teacher proficiency in using technology as a tool in instructing and in developing curricular activities. By the end of Grade 8, students are expected to have the 21st Century information and technology skills needed to meet the benchmark set forth by the DPI and NCLB, and teachers are expected to have students apply those skills in learning.

Definition of Terms

Wisconsin Information & Technology Literacy Standards. The Information and Technology Literacy Standards identify and define the knowledge and skills required for all Wisconsin students, by the end of grades four, eight, and twelve to access, evaluate, and use information and technology. A complete listing of the WITL Grade 8 standards is in Appendix A.

21st Century Skills. As defined by the Partnership for 21st Century Skills, 21st Century skills include life and career skills, learning and innovation skills, and information, media, and technology skills. The complete framework for 21st Century learning is given in Appendix B.

Technology Committee. The Gilman School District technology committee meets to assess the district's needs and to develop a plan for implementing technology district-wide. Stakeholders include the district principal, an administrative staff member, a school board member, a parent, two students, core curricular teachers

in elementary and high school, the information and technology educator, the technology coordinator, a local business person, and the community education director.

Information and Technology Plan. A district information and technology plan defines clear, measurable goals for district improvement related to the use of library media and technology. The plan is supported by research, best practice, and includes a rationale for each improvement goal developed. The plan is implemented over a three-year timeframe. An excerpt from the School District of Gilman's information and technology plan is given in Appendix C.

Technology Literacy. The International Society for Technology in Education (ISTE) defines technology literacy as standards for all students broadly divided into six categories: basic operations and concepts; social, ethical, and human issues; technology productivity tools; technology communications tools; technology research tools; and technology problem-solving and decision-making tools (2007).

Educator Proficiency with Effective Teaching and Learning Practices. An enGauge assessment item that ranked educators proficiency in implementing, assessing, and supporting a variety of effective practices for teaching and learning.

Robust Access, Anywhere, Anytime. An enGauge assessment item that ranked access to technology—anytime, anywhere—to support effective designs for teaching and learning.

Digital Age Equity. An enGauge assessment item that ranked the district's ability to provide resources and strategies that ensure *all* students are engaging in an educational program aligned with the vision.

Systems and Leadership. An enGauge assessment item that ranked the district's progress in reengineering itself into a high-performance organization.

Shared Vision. An enGauge assessment item that ranked the district's progress in building a shared, community-based vision that prepares students to learn, work, and live successfully in a knowledge-based, global society.

Effective Teaching and Learning Practices. An enGauge assessment item that ranked the district's progress in translating the district's vision into practice through learning environments characterized by powerful, research-based strategies that effectively use technologies.

Limitations of the Study

A limitation of the study is inherent in the use of student perceptions at Grade 8. It is possible that students did not understand the standard identified and chose to give any response in an effort to complete the survey. Another limitation is the knowledge and capacity of the individual teacher to implement information and technology skills into curriculum. It is also possible that some curricular areas lend themselves to more use of specific technologies than other areas. Since this is the first study of perceived student proficiency for each information and technology skill, no prior information exists for comparison.

Methodology

A literature review was completed to determine the effectiveness of technology-rich instructional units and project-based assessments as a means for measuring 21st Century skills used in student learning as mandated by federal and state laws. A survey tool was designed to address each of the WITL Standards to be accomplished by district students by the end of Grade 8. Survey data was collected from students and educators to determine a perceived level of student proficiency in completing tasks incorporating 21st Century skills. Survey data collected was evaluated to compare students' perceived level of proficiency to teacher perceptions of students' level of proficiency. Standards that included tasks in which an unacceptable difference in perception occurred were identified for improvement in program, instructional, and curricular changes. Tasks not observed by teachers will be reviewed as technology skills possibly not implemented fully into curricular areas.

Chapter II: Literature Review

"*Where Student Achievement Comes First*" This is the vision statement that the School District of Gilman used in developing improvement plans and curriculum to serve the needs of its students. The district is a rural PreK-12 school located in west central Wisconsin and currently enrolls 489 students. The district is in a low socio-economic part of the state with 51% of the district families qualifying for free or reduced lunch. District technology leaders are motivated to provide an educational environment where students have the same learning opportunities as other students throughout the state.

One of the school improvement plans reviewed annually and rewritten every three years was the district technology plan which identifies the district's information and technology goals and objectives. (Appendix D) One of the main goals of the 2009-2012 plan was to integrate 21st Century skills into the curriculum to increase student achievement. To provide accountability to the Wisconsin DPI and allow for a measurement of attainment for the technology goal, the School District of Gilman looked to provide evidence that students were meeting the Wisconsin Information and Technology Literacy Standards (WITLS) by the end of Grade 8 and to determine if the means chosen to meet the state reporting requirements were fully implemented.

Other national and state initiatives also focused on information and technology literacy as a main goal to be attained through education. Chapter PI 26: Education for Employment Plans and Program stated that every board shall provide access to an education for employment program with the purpose to prepare elementary and secondary pupils for future employment, to ensure technological literacy, and to promote lifelong learning (2004). No longer could school districts be inflexible to integrating

technology into curricular activities. Teachers and students needed to be trained on how to use technology creatively and on instructional methods most beneficial to students. A study done in 2009 by Project Tomorrow recommended that policy makers listen to the main stakeholder when investing in technology—the students themselves. To listen, observe and learn about how they are approaching learning and living every day…the challenges they face in learning in the 21st Century and their aspirations for how schools can be improved so all students will be successful (2009). Other findings in the study indicated that nationally students use technology for education in communicating with others about school projects. Of the participants in the study, about one-half of middle and high school students communicated with others for schoolwork using e-mail. When asked if students use technology to collaborate with others for school, more than 50% of middle school and high school students reported they collaborate with their classmates through their social networking site. Respondents also indicated that they are beginning to use technology to get help from online tutors (10%), use online textbooks or other online curricula (20%), and listen to podcasts from class (9%). Nationally, students were increasingly using technology for educational purposes, and all Gilman students were to demonstrate skills needed to take advantage of technology used in collaboration and other learning activities in the 21st Century.

State and National Standards

The School District of Gilman continues to document and report that the district is complying with initiatives to implement curriculum that aligns with state standards and national initiatives. To assist with meeting state information and technology requirements, the district must use the standards set forth in Wisconsin's Model

Academic Standards for Information & Technology Literacy to develop its information and technology curriculum and to assist teachers in developing curricular activities that include the use of information and technology skills. Within the standards, the Wisconsin DPI notes "our state assessments are aligned with these standards and school districts adopt, adapt, or develop their own standards and multiple measures for determining proficiencies of students" (WITLS, 1998) .

The School District of Gilman sought to keep its status as a school making Annual Yearly Progress (AYP) as defined in the No Child Left Behind (NCLB) Act of 2001 by implementing technology and literacy standards. The Wisconsin DPI studied the affect library media programs have on Wisconsin Knowledge and Concepts Examination (WKCE) scores. Findings indicated while socioeconomic and school variables explain a large portion of the variance in WKCE performance at all educational levels...at the high school level, the impact of a quality library media program was almost 7 percentage points greater than the impact of socioeconomic variables (DPI, 2006). In addition, findings concluded that at the middle/junior high school level, information and technology and media programs explained 9.2% of the variance in WKCE reading performance. By adhering to and fully implementing the state information and technology literacy standards while developing course curriculum, the School District of Gilman may show increased student performance on the WKCE and continue to be a school with AYP status.

Federal and State Laws Requiring an Approved Information and Technology Plan

The Wisconsin Department of Public Instruction prepared plans at the state level to meet requirements for federal funding to be dispersed to school districts that have

approved information and technology plans. The Telecommunications Act of 1996 (E-Rate) provided funding for telecommunications and required that a district establish clear goals and a realistic strategy for using telecommunications and information technology to improve education or library services (1996). NCLB required that in order to be eligible to receive a subgrant from a state educational agency an eligible local entity or agency shall:

> submit to the State educational agency an application containing a new or updated local long-range strategic educational technology plan that is consistent with the objectives of the statewide educational technology plan...the local plan shall include the following: a description of how the applicant will use Federal funds to improve student academic achievement, including technology literacy, of all students attending schools served by the local educational agency and to improve the capacity of all teachers teaching in schools served by the local educational agency to integrate technology effectively into curricula and instruction. (NCLB, 2001)

The State of Wisconsin required in statute 121.02(1)(h) and (k) that a district must have a board approved long range library media plan that includes a scope and sequence for PreK-12 information and technology literacy integrated into the regular curriculum (DPI, 2003). In addition, the district needed to report the status of information and technology use by students, staff, and community. The Technology and Copyright Harmonization (TEACH) Act of 2001 provided funding for improving technology infrastructure within buildings but required school districts to "create or update copyright policies and implement technology that prevents students from copying and distributing

material" (TEACH, 2001). The School District of Gilman worked diligently to meet state and federal mandates to maintain eligibility for funding from these sources. All of the rules and regulations required through the acts researched were addressed through the state guidelines in preparing an information and technology plan. The School District of Gilman technology committee carefully referred to each of the directives given by the Wisconsin DPI in plan preparation and finalized its plan for approval in 2009.

Implications on Teaching and Learning

The School District of Gilman demonstrated its support and understanding of the importance of implementing WITLS into its curriculum and annually funded updates and training for software programs, instructional materials, teacher workshops, equipment, and network infrastructure. The foundation for teaching and learning using information and technology skills was in place. It was now the responsibility of the district teachers and students to move forward with integrating and using technology in ways that reinforce education and employment in the 21st Century. Dede, Kort, Nelson, Valdez, Ward (2005) stated it is the challenge in education is to transform children's learning processes in and out of school and to engage student interest in 21st Century skills. Economic development, educational evolution, workforce development, and strengthened social services are dependent upon meeting this challenge (p. 3). A change in the U.S. economy has spurred a shift in workplace skills. Workers today face job losses in manufacturing and industrial businesses and a surge in job openings in health care, services, and technology. (p. 2). Information and technology skills are needed to obtain highly skilled, high paying, and high demand jobs. The Task Force on the Future of American Innovation (2005) stated that markets in our nation's economy are rewarding

workers who have high educational achievement and technical skill. Today's workers need to be competitive in the workplace with an all-encompassing set of knowledge and skills. The worker of the 21st Century must have science and mathematics skills, creativity, information and communication technologies (ICT) skills, and the ability to solve complex problems (Business-Higher Education Forum, 2005).

To ensure that students learn 21st Century skills, teachers need to engage in expert thinking and complex communication related to instruction (Dede, et. al, 2005). Teachers need to understand workplace expectations and model skills of adult thinking and communication that are student-level appropriate. In addition, teachers need to recognize the need to address different learning styles as they change with the integration of information and technology skills. Information is readily available through the use of the internet and teachers need to focus learning on seeking, retrieving, synthesizing, and communicating information. Being able to locate, process, and summarize information using critical evaluation and interpretation is crucial in teaching and learning. Dede (2005) found that research on sophisticated interactive media suggests that the following may emerge as cross-age learning styles:

> Fluency in multiple media, valuing each for the types of communication, activities, experiences, and expressions it empowers
>
> Learning based on collective seeking, sieving, and synthesizing experiences rather than individually locating and absorbing information from some single best source
>
> Active learning based on experience (real and simulated) that includes frequent opportunities for reflection

> Expression through nonlinear, associational webs of representations rather than linear "stories" (e.g., authoring a simulation and a web page to express understanding rather than a paper)
>
> Codesign of learning experiences personalized to individual needs and preferences (p. 1)

As the School District of Gilman continues to assess its level of implementing WITLS into its curriculum by the end of Grade 8, teachers and students will need to be actively involved in developing programs that reflect and encourage critical thinking, the use of media, active learning, and differentiated instruction based upon students' prior knowledge.

Technology Literacy Assessments

Local districts in the state of Wisconsin were given the choice on how to demonstrate that 100% of its students are technologically literate by the end of Grade 8. The only directive given was that districts must have documentation to support reporting requirements. The State Educational Technology Directors Association (SETDA) (2007) found that 84% of the nation's states assess 8th grade technology literacy at the local level while the remainder provide a state assessment tool. SEDTA was able to determine that 10% of states use a content-based approach, 8% use a performance test (web-based), 2% use a knowledge test (non-web-based), 8% use a knowledge test (web-based), 8% use a technology course, 8% believe that technology literacy is embedded in current state test, and 59% of the states reported using a different method (p. 6).

Other assessment tools are available online such as Tech Points, Learning.com, ISTE NETS, Office Proficiency and Certification (OPAC) Assessment for example. Each

of these technology literacy assessment tools varied in what was measured, format, grade level and readability, cost, and content as the assessment tool may or may not relate to WITLS. Tech Points was a multiple choice test that measured NCLB standards with an associated cost per student. Learning.com seemed to correlate to WITLS, was online, but had a $1,500 one time set up fee plus a $5 per student fee. ISTE NETS measured NETS standards, was online, and was free; however, the test was lengthy and involved intensive reading. OPAC was based on the specific skills needed to be proficient in using office productivity software and had an associated fee of $2,300 for licensure.

Since Wisconsin allowed districts to determine locally how to assess student achievement in information and technology, the School District of Gilman selected representative information and technology-rich instructional units as its indicators for meeting DPI requirements. This selection was made by administration in that the district provides instruction in information and technology beginning in Grade 4 and many of the state standards performance indicators were included in documented curricular instructional units in which students were required to demonstrate proficiency.

Chapter III: Methodology

For this study state and federal mandates were analyzed and used to determine the importance of establishing a level of proficiency for School District of Gilman students in completing tasks related to the Wisconsin Information and Technology Literacy Standards by the end of Grade 8. The Wisconsin Department of Public Instruction requires that all students demonstrate proficiency and that documentation exists to support district claims. This study compared students' perceptions of their skill level in information and technology and teacher perceptions of student skill levels when asked to apply information and technology skills. Comparison data obtained was used to identify standards and related performance tasks in need of review for possible curricular changes or staff development.

Subject Selection and Description

This study was completed with a management-oriented evaluation approach. It focused on the perceived differences of student performance in using 21st Century skills as defined in WITLS. Quantitative data was collected and analyzed from a student survey and a teacher survey. There were thirty-eight (38) students in the School District of Gilman 2008-2009 Grade 8 class of which thirty-six (36) participated in the survey. Transfer students were not included as part of the study. Seventeen (17) teachers who instruct students at this grade level were also surveyed. New teaching staff for the 2009-2010 school year were not included as part of the study.

Instrumentation

A survey tool (Appendix D) was designed for this program evaluation and piloted by a student who completed Grade 8. The survey was given to thirty-six (36) students

who completed Grade 8 at the School District of Gilman at the end of the 2008-2009 school year. The tool was developed to collect data on students' perceived skill level for each technology skill performance indicator given in the WITL standards.

The table shown below was the response category key that students used to make a choice on perceived skill level.

Table 1 Category Key of Student Responses to Survey

Can do this task easily	You can include this task in your daily use of the computer.
Can do this task with help	You need someone to remind you how to do the task but are generally able to continue on your own without much assistance.
Unable to do this task	You remember learning something about this task, but you need a lot of assistance to continue with the task.
No idea what this task means	You cannot remember learning about this task in any of your courses.

A similar tool (Appendix E) was given to teachers of students in Grade 8 to provide feedback on perceptions of student ability when asked to complete tasks related to information and technology skills. Table 2 illustrates the response categories teachers chose from for the study. These categories related closely to the corresponding student categories.

Table 2 Category Key of Teacher Responses to Survey

Most can do this task easily	You can include the task in an assignment and most can do the task without asking for help.
Most can do this task with help	You need to give a simple, short, general overview so most students are reminded of the task and how to proceed without a lot of assistance.
Unable to do this task	You have included the task in a class assignment, and most students cannot remember how to continue with the task without a lot of reteaching and assistance.
Not observed	This task is not included in curricular activities.

Additional questions related to knowledge of standards and WITLS documentation were included in the teacher survey tool.

Data Collection Procedures

A twenty-two (22) question survey with subtasks (Appendix D) was administered at the beginning of the 2009-2010 school year to those students who attended the School District of Gilman through the end of the 2008-2009 school year in Grade 8. Students granted permission by their parent or guardian reported to a high school computer lab to take the student survey electronically. Students were told the purpose of the survey and the response category key was read and explained before starting the survey. Students were monitored while taking the survey.

A twenty-eight (28) question survey with subtasks (Appendix E) was administered to teachers of students in Grade 8 through an online electronic survey during the first day back for the 2009-2010 school year. The purpose of the survey was explained to staff and the response category key clarified as needed.

Data Analysis

The percentage of Grade 8 students that find they are able to do tasks easily, can do tasks with help, or unable to do the tasks related to each WITLS performance indicator was directly compared to the percentage of Grade 8 teachers that perceive student ability as able to do the task easily, can do tasks with help, or unable to do the task. Students being able to do the task easily was the category needing to be achieved according to the Department of Public Instruction. A percentage difference between the perceptions students have of their skill level related to each WITLS and their corresponding performance indicators and the perceptions teachers have of student ability was determined.

District administrators, technology teachers, and technology committee members were interviewed to determine an acceptable difference in teacher and student perception of skill. The district technology leaders for the School District of Gilman determined that a 10% difference in perceptions was acceptable and that percentage differences in perception greater than 10% would be considered as standards and performance tasks in need of review for curricular changes or staff development.

Limitations

A limitation of the study was inherent in the use of student perceptions at Grade 8. It was possible that students did not understand the standard identified and chose to give any response in an effort to complete the survey. Another limitation was the knowledge and capacity of the individual teacher to implement information and technology skills into curriculum. It was also possible that some curricular areas lend themselves to more use of specific technologies than other areas. Since this was the first assessment of student proficiency using information and technology skills, no prior information existed for comparison.

Chapter IV: Results

The School District of Gilman is located in a low socioeconomic area of west central Wisconsin. It is a high priority of the district to receive as much state and federal funding as possible to support its educational and co-curricular programs. In doing so, area residents are less burdened with tax increases related to funding district educational programs. To fulfill its responsibility to students, parents, and community members, and state agencies, the school board implemented an information and technology program that students begin in Grade 4 and are required to participate in through Grade 7. The district chose to provide technology-rich curriculum in which all students must demonstrate proficiency to help meet state standards in information and technology literacy. In addition, teachers were provided training to incorporate the use of 21st Century skills in curricular activities to improve information and technology literacy.

The purpose of this program evaluation was to determine the difference between the teachers and students in perceived level of student proficiency in the WITLS by the end of Grade 8. The data provided will be used in making decisions on curricular changes and staff training.

Parental or legal guardian permission was received from each student who participated in the survey. The student survey consisted of 22 main statements identifying performance tasks for each of the standards. Students were asked to read the task and select what they perceived their level of performance to be. The choices were *can do the task easily*, *can do the task with help*, *unable to do the task*, or *no idea what this task means*. Thirty-six of 38 possible students responded to the survey for a 95% response rate.

Seventeen teachers were invited to take a similar survey (Appendix E) at the opening meeting for the 2009-2010 school year. The teacher survey consisted of 22 statements related to WITLS upon which the teachers could select if they perceived that *most can do the task easily without help*, *most can do the task with help*, *most are unable to do the task*, or *not observed.* Five other statements about state standards and WITLS documentation were also included in which teachers were asked to select a response dependent upon the statement of *most often*, *sometimes*, *seldom*, or *never,* or *strongly agree*, *agree*, *neither agree or disagree*, *disagree*, or *strongly disagree.* All 17 teachers of core and elective classes for students in Grade 8 participated for a 100% response rate.

Item Analysis

The survey results for both teachers and students (Appendix F) were converted to the percentage of responses given for each perception, *do task easily*, *do task with help*, *unable to do the task*, along with an additional choice for teachers in which they could select *did not observe the task.* An additional choice for students included *no idea what the task means*. These results were included in each item analysis. A comparison of data for each standard performance indicator (Appendix G) was done to determine tasks that indicate a difference in perceptions of student performance. Differences that were 10% or less were considered to be an acceptable difference between student and teacher perceptions of *do task easily*, *do task with help,* and *unable to do the task* and were not included for program changes and professional development. Differences greater than 10% for each category compared were used to determine if curriculum needs be addressed or if teacher training is needed or both. The additional survey choices not compared between teacher and student responses were used to provide additional

information in discussion for direction in curricular changes and professional development.

Standard A Media and Technology. The following analysis pertains to Standard A Media and Technology. The content standard is *students in Wisconsin will select and use media and technology to access, organize, create, and communicate information for solving problems and constructing new knowledge, products, and systems.* Each performance standard for Standard A was analyzed separately and the results are given in the table included with the analysis.

Performance Standard A Media and Technology A.8.1 By the end of Grade 8 students will use common media and technology terminology and equipment. The performance indicators for Standard A.8.1 are shown in Table 3. Teacher and student responses were compared to determine a difference in perception of student ability.

Table 3—Data Comparison for Performance Standard A Media and Technology A.8.1

WITLS Performance Indicator	Do task easily			Do task with help			Unable to do task		
	Teachers	Students	% Difference	Teachers	Students	% Difference	Teachers	Students	% Difference
Identify and define computer and networking terms	41%	25%	16%	35%	67%	32%	0%	3%	3%
Demonstrate the correct operation of a computer	65%	47%	18%	29%	36%	7%	0%	6%	6%
Demonstrate touch keyboarding skills at acceptable speed and accuracy levels (20-25 wpm)	47%	83%	36%	35%	11%	24%	0%	6%	6%
Organize and backup files on a computer disk, drive, server, or other storage device	65%	50%	15%	12%	39%	27%	12%	11%	1%
Recognize and solve routine computer hardware and software problems	0%	20%	20%	59%	51%	8%	18%	23%	5%
Use basic content-specific tools to provide evidence/support in a class project	12%	36%	24%	29%	42%	13%	0%	3%	3%
Scan, crop, and save a graphic using a scanner, digital camera, or other digitizing equipment	35%	68%	33%	35%	26%	9%	0%	3%	3%
Use simple graphing calculator functions to solve a problem	24%	81%	57%	29%	16%	13%	6%	3%	3%
Capture, edit, and combine video segments using a multimedia computer with editing software or a video editing system	12%	17%	5%	47%	67%	20%	6%	11%	5%
Composite Score	33%	47%	14%	34%	39%	5%	5%	8%	3%

Task One: Identify and define computer and networking terms. Students responded with 25% perceiving they are able to do the task easily, 67% can do the task with help, 3% were unable to do the task, and 5% had no idea what this task means. Teachers perceived 41% of students able to do the task easily, 35% can do the task with help, 0% were unable to do the task, and 24% indicated they did not observe the task.

The data comparison for the performance task indicated a 16% difference in teacher and student perceptions in students' ability to do the task easily, a 32% difference in the perception that students can do the task with help, and a 3% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Two: Demonstrate the correct operation of a computer system on a network. Students responded with 47% perceiving they are able to do the task easily, 36% can do the task with help, 6% were unable to do the task, and 11% had no idea what this task means. Teachers perceived 65% of students able to do the task easily, 29% can do the task with help, 0% were unable to do the task, and 6% indicated they did not observe the task.

The data comparison for the performance task indicated an 18% difference in teacher and student perceptions in students' ability to do the task easily, a 7% difference in the perception that students can do the task with help, and a 6% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Three: Demonstrate touch keyboarding skills at acceptable speed and accuracy levels (20-25 wpm). Students responded with 83% perceiving they are able to

do the task easily, 11% can do the task with help, 6% were unable to do the task, and 0% had no idea what this task means. Teachers perceived 47% of students able to do the task easily, 35% can do the task with help, 0% were unable to do the task, and 18% indicated they did not observe the task.

The data comparison for the performance task indicated a 36% difference in teacher and student perceptions in students' ability to do the task easily, a 24% difference in the perception that students can do the task with help, and a 6% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Four: Organize and backup files on a computer disk, drive, server, or other storage device. Students responded with 50% perceiving they are able to do the task easily, 39% can do the task with help, 11% were unable to do the task, and 0% had no idea what this task means. Teachers perceived 65% of students able to do the task easily, 12% can do the task with help, 12% were unable to do the task, and 11% indicated they did not observe the task.

The data comparison for the performance task indicated a 15% difference in teacher and student perceptions in students' ability to do the task easily, a 27% difference in the perception that students can do the task with help, and a 1% difference in perceiving that students are unable to do the task. The performance task should be reviewed for possible curricular changes and professional development.

Task Five: Recognize and solve routine computer hardware and software problems. Students responded with 20% perceiving they are able to do the task easily, 51% can do the task with help, 23% were unable to do the task, and 6% had no idea what

this task means. Teachers perceived 0% of students able to do the task easily, 59% can do the task with help, 18% were unable to do the task, and 23% indicated they did not observe the task.

The data comparison for the performance task indicated an 18% difference in teacher and student perceptions in students' ability to do the task easily, a 7% difference in the perception that students can do the task with help, and a 6% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Six: Use basic content-specific tools to provide evidence/support in a class project. Students responded with 36% perceiving they are able to do the task easily, 42% can do the task with help, 3% were unable to do the task, and 19% had no idea what this task means. Teachers perceived 12% of students able to do the task easily, 29% can do the task with help, 0% were unable to do the task, and 59% indicated they did not observe the task.

The data comparison for the performance task indicated a 20% difference in teacher and student perceptions in students' ability to do the task easily, an 8% difference in the perception that students can do the task with help, and a 5% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Seven: Scan, crop, and save a graphic using a scanner, digital camera, or other digitizing equipment. Students responded with 68% perceiving they are able to do the task easily, 26% can do the task with help, 3% were unable to do the task, and 3% had no idea what this task means. Teachers perceived 35% of students able to do the task

easily, 35% can do the task with help, 0% were unable to do the task, and 30% indicated they did not observe the task.

The data comparison for the performance task indicated a 24% difference in teacher and student perceptions in students' ability to do the task easily, a 13% difference in the perception that students can do the task with help, and a 3% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Eight: Use simple graphing calculator functions to solve a problem. Students responded with 81% perceiving they are able to do the task easily, 16% can do the task with help, 3% were unable to do the task, and 0% had no idea what this task means. Teachers perceived 24% of students able to do the task easily, 29% can do the task with help, 6% were unable to do the task, and 41% indicated they did not observe the task.

The data comparison for the performance task indicated a 57% difference in teacher and student perceptions in students' ability to do the task easily, a 13% difference in the perception that students can do the task with help, and a 3% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Nine: Capture, edit, and combine video segments using a multimedia computer with editing software or a video editing system. Students responded with 17% perceiving they are able to do the task easily, 67% can do the task with help, 11% were unable to do the task, and 5% had no idea what this task means. Teachers perceived 12% of students able to do the task easily, 47% can do the task with help, 6% were unable to do the task, and 35% indicated they did not observe the task.

The data comparison for the performance task indicated a 5% difference in teacher and student perceptions in students' ability to do the task easily, a 20% difference in the perception that students can do the task with help, and a 5% difference in perceiving that students are unable to do the task. The performance standard should be reviewed for curricular changes to strengthen student understanding and ability level.

In reviewing the category of being able to do the task easily as required by the district and the DPI, 33% of the teachers and 47% of the students reported that they could do Performance Standard A.8.1 tasks easily. Thus, a discrepancy between the two was 14% which illustrated a need for work on this standard.

Performance Standard A Media and Technology A.8.2 By the end of Grade 8 students will identify and use common media formats. The performance indicators for Standard A.8.2 are shown in Table 4. Teacher and student responses were compared to determine a difference in perception of student ability.

Table 4—Data Comparison for Performance Standard A Media and Technology A.8.2

WITLS Performance Indicators	Do task easily			Do task with help			Unable to do task		
	Teachers	Students	% Difference	Teachers	Students	% Difference	Teachers	Students	% Difference
Define the operating and file management software of a computer	71%	63%	8%	17%	28%	11%	0%	6%	6%
Identify the various organizational patterns used in different kinds o reference books	0%	43%	43%	47%	37%	10%	0%	20%	20%
Define the basic types of learning software	12%	51%	39%	47%	37%	10%	6%	3%	3%
Use electronic encyclopedias, almanacs, indexes, and catalogs to retrieve and select information	71%	74%	3%	17%	20%	3%	0%	6%	6%
Describe the various applications of productivity software programs	59%	77%	18%	23%	20%	3%	0%	0%	0%
Identify common integrated software packages or application suites	59%	49%	10%	12%	40%	28%	6%	5%	1%
Use a common graphics program to create or modify detail to an image or picture	35%	89%	54%	41%	8%	33%	0%	3%	3%
Define the operating and file management software of a computer	71%	63%	8%	17%	28%	11%	0%	6%	6%
Identify the various organizational patterns used in different kinds of reference books	0%	43%	43%	47%	37%	10%	0%	20%	20%
Define the basic types of learning software	12%	51%	39%	47%	37%	10%	6%	3%	3%
Use electronic encyclopedias, almanacs, indexes, and catalogs to retrieve and select information	71%	74%	3%	17%	20%	3%	0%	6%	6%
Describe the various applications of productivity software programs	59%	77%	18%	23%	20%	3%	0%	0%	0%
Identify common integrated software packages or application suites	59%	49%	10%	12%	40%	28%	6%	5%	1%
Use a common graphics program to create or modify detail to an image or picture	35%	89%	54%	41%	8%	33%	0%	3%	3%
Composite Score	44%	64%	20%	29%	27%	2%	2%	6%	4%

Task One: Define the operating and file management software of a computer. Students responded with 63% perceiving they are able to do the task easily, 28% can do the task with help, 6% were unable to do the task, and 3% had no idea what this task means. Teachers perceived 71% of students able to do the task easily, 17% can do the task with help, 0% were unable to do the task, and 12% indicated they did not observe the task.

The data comparison for the performance task indicated an 8% difference in teacher and student perceptions in students' ability to do the task easily, an 11% difference in the perception that students can do the task with help, and a 6% difference

in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Two: Identify the various organizational patterns used in different kinds of reference books. Students responded with 43% perceiving they are able to do the task easily, 37% can do the task with help, 20% were unable to do the task, and 0% had no idea what this task means. Teachers perceived 0% of students able to do the task easily, 47% can do the task with help, 0% were unable to do the task, and 53% indicated they did not observe the task.

The data comparison for the performance task indicated a 43% difference in teacher and student perceptions in students' ability to do the task easily, a 10% difference in the perception that students can do the task with help, and a 20% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Three: Define the basic types of learning software. Students responded with 51% perceiving they are able to do the task easily, 37% can do the task with help, 3% were unable to do the task, and 9% had no idea what this task means. Teachers perceived 12% of students able to do the task easily, 47% can do the task with help, 6% were unable to do the task, and 35% indicated they did not observe the task.

The data comparison for the performance task indicated a 39% difference in teacher and student perceptions in students' ability to do the task easily, a 10% difference in the perception that students can do the task with help, and a 3% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Four: Use electronic encyclopedias, almanacs, indexes, and catalogs to retrieve and select information. Students responded with 74% perceiving they are able to do the task easily, 20% can do the task with help, 6% were unable to do the task, and 0% had no idea what this task means. Teachers perceived 71% of students able to do the task easily, 17% can do the task with help, 0% were unable to do the task, and 12% indicated they did not observe the task.

The data comparison for the performance task indicated a 3% difference in teacher and student perceptions in students' ability to do the task easily, a 3% difference in the perception that students can do the task with help, and a 6% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Five: Describe the various applications of productivity software programs. Students responded with 77% perceiving they are able to do the task easily, 20% can do the task with help, 0% were unable to do the task, and 3% had no idea what this task means. Teachers perceived 59% of students able to do the task easily, 23% can do the task with help, 0% were unable to do the task, and 18% indicated they did not observe the task.

The data comparison for the performance task indicated a 18% difference in teacher and student perceptions in students' ability to do the task easily, a 3% difference in the perception that students can do the task with help, and a 0% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Six: Identify common integrated software packages or application suites. Students responded with 49% perceiving they are able to do the task easily, 40% can do the task with help, 5% were unable to do the task, and 6% had no idea what this task means. Teachers perceived 59% of students able to do the task easily, 12% can do the task with help, 6% were unable to do the task, and 23% indicated they did not observe the task.

The data comparison for the performance task indicated a 10% difference in teacher and student perceptions in students' ability to do the task easily, a 28% difference in the perception that students can do the task with help, and a 1% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Seven: Use a common graphics program to create or modify detail to an image or picture. Students responded with 89% perceiving they are able to do the task easily, 8% can do the task with help, 3% were unable to do the task, and 0% had no idea what this task means. Teachers perceived 35% of students able to do the task easily, 41% can do the task with help, 0% were unable to do the task, and 24% indicated they did not observe the task.

The data comparison for the performance task indicated a 54% difference in teacher and student perceptions in students' ability to do the task easily, a 33% difference in the perception that students can do the task with help, and a 3% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

In reviewing the category of being able to do the task easily as required by the district and the DPI, 44% of the teachers and 64% of the students reported that they could do Performance Standard A.8.2 tasks easily. Thus, a discrepancy between the two was 20% which illustrated a need for work on this standard.

Performance Standard A Media and Technology A.8.3 By the end of Grade 8 students will use a computer and productivity software to organize and create information. The performance indicators for Standard A.8.3 are shown in Table 5. Teacher and student responses were compared to determine a difference in perception of student ability.

Table 5—Data Comparison for Performance Standard A Media and Technology A.8.3

WITLS Performance Indicators	Do task easily			Do task with help			Unable to do task		
	Teachers	Students	% Difference	Teachers	Students	% Difference	Teachers	Students	% Difference
Explain the use of basic word processing functions	71%	83%	12%	17%	14%	3%	0%	0%	0%
Use the spell checker and thesaurus functions of a word processing program	82%	92%	10%	12%	8%	4%	0%	0%	0%
Move textual and graphics data from on document to another	65%	83%	18%	17%	17%	0%	0%	0%	0%
Use graphics software to import pictures, images, and charts into documents	41%	83%	42%	35%	14%	21%	0%	3%	3%
Use a graphical organizer program to construct outlines or webs that organize ideas and information	6%	39%	33%	41%	50%	9%	12%	8%	4%
Compose a class report using advanced text formatting and layout styles	41%	89%	48%	41%	11%	30%	0%	0%	0%
Classify collected data and construct a simple database by defining fields, entering and sorting data, and producing a report	0%	72%	72%	71%	19%	52%	0%	3%	3%
Construct a simple spreadsheet, enter data, and interpret the information	18%	83%	65%	53%	11%	42%	6%	6%	0%
Plot and use different types of charts and graphs	6%	64%	58%	47%	30%	17%	12%	3%	9%
Incorporate database and spreadsheet information into a word-processed document	18%	75%	57%	41%	22%	19%	6%	3%	3%
Composite Score	35%	76%	41%	38%	20%	18%	4%	3%	1%

Task One: Explain the use of basic word processing functions. Students responded with 83% perceiving they are able to do the task easily, 14% can do the task

with help, 0% were unable to do the task, and 3% had no idea what this task means. Teachers perceived 71% of students able to do the task easily, 17% can do the task with help, 0% were unable to do the task, and 12% indicated they did not observe the task.

The data comparison for the performance task indicated a 12% difference in teacher and student perceptions in students' ability to do the task easily, a 3% difference in the perception that students can do the task with help, and a 0% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Two: Use the spell checker and thesaurus functions of a word processing program. Students responded with 92% perceiving they are able to do the task easily, 8% can do the task with help, 0% were unable to do the task, and 0% had no idea what this task means. Teachers perceived 82% of students able to do the task easily, 12% can do the task with help, 0% were unable to do the task, and 6% indicated they did not observe the task.

The data comparison for the performance task indicated a 10% difference in teacher and student perceptions in students' ability to do the task easily, a 2% difference in the perception that students can do the task with help, and a 0% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Three: Move textual and graphics data from one document to another. Students responded with 83% perceiving they are able to do the task easily, 17% can do the task with help, 0% were unable to do the task, and 0% had no idea what this task means. Teachers perceived 65% of students able to do the task easily, 17% can do the

task with help, 0% were unable to do the task, and 18% indicated they did not observe the task.

The data comparison for the performance task indicated an 18% difference in teacher and student perceptions in students' ability to do the task easily, a 0% difference in the perception that students can do the task with help, and a 0% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Four: Use graphics software to import pictures, images, and charts into documents. Students responded with 83% perceiving they are able to do the task easily, 14% can do the task with help, 3% were unable to do the task, and 0% had no idea what this task means. Teachers perceived 41% of students able to do the task easily, 35% can do the task with help, 0% were unable to do the task, and 24% indicated they did not observe the task.

The data comparison for the performance task indicated a 42% difference in teacher and student perceptions in students' ability to do the task easily, a 21% difference in the perception that students can do the task with help, and a 3% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Five: Use a graphical organizer program to construct outlines or webs that organize ideas and information. Students responded with 39% perceiving they are able to do the task easily, 50% can do the task with help, 8% were unable to do the task, and 3% had no idea what this task means. Teachers perceived 6% of students able to do the task

easily, 41% can do the task with help, 12% were unable to do the task, and 41% indicated they did not observe the task.

The data comparison for the performance task indicated a 33% difference in teacher and student perceptions in students' ability to do the task easily, a 9% difference in the perception that students can do the task with help, and a 4% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Six: Compose a class report using advanced text formatting and layout styles. Students responded with 89% perceiving they are able to do the task easily, 11% can do the task with help, 0% were unable to do the task, and 0% had no idea what this task means. Teachers perceived 41% of students able to do the task easily, 41% can do the task with help, 0% were unable to do the task, and 18% indicated they did not observe the task.

The data comparison for the performance task indicated a 48% difference in teacher and student perceptions in students' ability to do the task easily, a 30% difference in the perception that students can do the task with help, and a 0% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Seven: Classify collected data and construct a simple database by defining fields, entering and sorting data, and producing a report. Students responded with 72% perceiving they are able to do the task easily, 19% can do the task with help, 3% were unable to do the task, and 6% had no idea what this task means. Teachers perceived 0%

of students able to do the task easily, 71% can do the task with help, 0% were unable to do the task, and 29% indicated they did not observe the task.

The data comparison for the performance task indicated a 72% difference in teacher and student perceptions in students' ability to do the task easily, a 52% difference in the perception that students can do the task with help, and a 3% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Eight: Construct a simple spreadsheet, enter data, and interpret the information. Students responded with 83% perceiving they are able to do the task easily, 11% can do the task with help, 6% were unable to do the task, and 0% had no idea what this task means. Teachers perceived 18% of students able to do the task easily, 53% can do the task with help, 6% were unable to do the task, and 23% indicated they did not observe the task.

The data comparison for the performance task indicated a 65% difference in teacher and student perceptions in students' ability to do the task easily, a 42% difference in the perception that students can do the task with help, and a 0% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Nine: Plot and use different types of charts and graphs from a spreadsheet program. Students responded with 64% perceiving they are able to do the task easily, 30% can do the task with help, 3% were unable to do the task, and 3% had no idea what this task means. Teachers perceived 6% of students able to do the task easily, 47% can do

the task with help, 12% were unable to do the task, and 35% indicated they did not observe the task.

The data comparison for the performance task indicated a 58% difference in teacher and student perceptions in students' ability to do the task easily, a 17% difference in the perception that students can do the task with help, and a 9% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Ten: Incorporate database and spreadsheet information into a word-processed document. Students responded with 75% perceiving they are able to do the task easily, 22% can do the task with help, 3% were unable to do the task, and 0% had no idea what this task means. Teachers perceived 18% of students able to do the task easily, 41% can do the task with help, 6% were unable to do the task, and 35% indicated they did not observe the task.

The data comparison for the performance task indicated a 57% difference in teacher and student perceptions in students' ability to do the task easily, a 19% difference in the perception that students can do the task with help, and a 3% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

In reviewing the category of being able to do the task easily as required by the district and the DPI, 35% of the teachers and 76% of the students reported that they could do Performance Standard A.8.3 tasks easily. Thus, a discrepancy between the two was 41% which illustrated a need for work on this standard.

Performance Standard A Media and Technology A.8.4 By the end of Grade 8 students will use a computer and communications software to access and transmit information. The performance indicators for Standard A.8.4 are shown in Table 6. Teacher and student responses were compared to determine a difference in perception of student ability.

Table 6—Data Comparison for Performance Standard A Media and Technology A.8.4

WITLS Performance Indicators	Do task easily			Do task with help			Unable to do task		
	Teachers	Students	% Difference	Teachers	Students	% Difference	Teachers	Students	% Difference
Define basic on-line searching and internet terminology	47%	56%	9%	29%	33%	4%	6%	8%	2%
Send an e-mail message with an attachment to several persons simultaneously	76%	78%	2%	12%	19%	7%	0%	3%	3%
Access information using a modem or network connection to the internet or other on-line information services	76%	75%	1%	18%	11%	7%	0%	14%	4%
View, print, save, and open a document from the internet or other on-line sources	88%	89%	1%	12%	11%	1%	0%	0%	0%
Use basic search engines and directories to locate resources on a specific topic	82%	86%	4%	12%	8%	4%	0%	3%	3%
Demonstrate efficient internet navigation	88%	74%	14%	12%	20%	8%	0%	3%	3%
Organize World Wide Web bookmarks by subject or topic	65%	53%	12%	6%	31%	25%	0%	11%	11%
Composite Score	75%	73%	2%	14%	19%	5%	1%	6%	5%

Task One: Define basic on-line searching and internet terminology. Students responded with 56% perceiving they are able to do the task easily, 33% can do the task with help, 8% were unable to do the task, and 3% had no idea what this task means. Teachers perceived 47% of students able to do the task easily, 29% can do the task with help, 6% were unable to do the task, and 18% indicated they did not observe the task.

The data comparison for the performance task indicated a 9% difference in teacher and student perceptions in students' ability to do the task easily, a 4% difference in the perception that students can do the task with help, and a 2% difference in

perceiving that students are unable to do the task. The performance task should not be reviewed for curricular changes to strengthen student understanding and ability level.

Task Two: Send an e-mail message with an attachment to several persons simultaneously. Students responded with 78% perceiving they are able to do the task easily, 19% can do the task with help, 3% were unable to do the task, and 0% had no idea what this task means. Teachers perceived 76% of students able to do the task easily, 12% can do the task with help, 0% were unable to do the task, and 12% indicated they did not observe the task.

The data comparison for the performance task indicated a 2% difference in teacher and student perceptions in students' ability to do the task easily, a 7% difference in the perception that students can do the task with help, and a 3% difference in perceiving that students are unable to do the task. The performance task should not be reviewed for curricular changes to strengthen student understanding and ability level.

Task Three: Access information using a modem or network connection to the internet or other on-line information services. Students responded with 75% perceiving they are able to do the task easily, 11% can do the task with help, 14% were unable to do the task, and 0% had no idea what this task means. Teachers perceived 76% of students able to do the task easily, 18% can do the task with help, 0% were unable to do the task, and 6% indicated they did not observe the task.

The data comparison for the performance task indicated a 1% difference in teacher and student perceptions in students' ability to do the task easily, a 7% difference in the perception that students can do the task with help, and a 14% difference in

perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Four: View, print, save, and open a document from the internet or other on-line sources. Students responded with 89% perceiving they are able to do the task easily, 11% can do the task with help, 0% were unable to do the task, and 0% had no idea what this task means. Teachers perceived 88% of students able to do the task easily, 12% can do the task with help, 0% were unable to do the task, and 0% indicated they did not observe the task.

The data comparison for the performance task indicated a 1% difference in teacher and student perceptions in students' ability to do the task easily, a 1% difference in the perception that students can do the task with help, and a 0% difference in perceiving that students are unable to do the task. The performance task should not be reviewed for curricular changes to strengthen student understanding and ability level.

Task Five: Use basic search engines and directories to locate resources on a specific topic. Students responded with 86% perceiving they are able to do the task easily, 8% can do the task with help, 3% were unable to do the task, and 3% had no idea what this task means. Teachers perceived 82% of students able to do the task easily, 12% can do the task with help, 0% were unable to do the task, and 6% indicated they did not observe the task.

The data comparison for the performance task indicated a 4% difference in teacher and student perceptions in students' ability to do the task easily, a 4% difference in the perception that students can do the task with help, and a 3% difference in

perceiving that students are unable to do the task. The performance task should not be reviewed for curricular changes to strengthen student understanding and ability level.

Task Six: Demonstrate efficient internet navigation. Students responded with 74% perceiving they are able to do the task easily, 20% can do the task with help, 3% were unable to do the task, and 3% had no idea what this task means. Teachers perceived 88% of students able to do the task easily, 12% can do the task with help, 0% were unable to do the task, and 0% indicated they did not observe the task.

The data comparison for the performance task indicated a 14% difference in teacher and student perceptions in students' ability to do the task easily, an 8% difference in the perception that students can do the task with help, and a 3% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Seven: Organize World Wide Web bookmarks (favorites) by subject or topic. Students responded with 53% perceiving they are able to do the task easily, 31% can do the task with help, 11% were unable to do the task, and 5% had no idea what this task means. Teachers perceived 65% of students able to do the task easily, 6% can do the task with help, 0% were unable to do the task, and 29% indicated they did not observe the task.

The data comparison for the performance task indicated a 12% difference in teacher and student perceptions in students' ability to do the task easily, a 25% difference in the perception that students can do the task with help, and an 11% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

In reviewing the category of being able to do the task easily as required by the district and the DPI, 75% of the teachers and 73% of the students reported that they could do Performance Standard A.8.4 tasks easily. Thus, a discrepancy between the two was 2% which illustrated no need for work on this standard.

Performance Standard A Media and Technology A.8.5 By the end of Grade 8 students will use media and technology to create and present information. The performance indicators for Standard A.8.5 are shown in Table 7. Teacher and student responses were compared to determine a difference in perception of student ability.

Table 7—Data Comparison for Performance Standard A Media and Technology A.8.5

WITLS Performance Indicators	Do task easily			Do task with help			Unable to do task		
	Teachers	Students	% Difference	Teachers	Students	% Difference	Teachers	Students	% Difference
Use draw, paint, or graphics software to create visuals that will enhance a class project or report	24%	83%	59%	53%	17%	36%	0%	0%	0%
Design and produce a multimedia program	35%	63%	28%	30%	34%	4%	0%	3%	3%
Plan and deliver a presentation using media and technology appropriate to topic, audience, purpose, or content	44%	57%	13%	31%	31%	0%	0%	6%	6%
Composite Score	34%	68%	34%	38%	27%	11%	0%	3%	3%

Task One: Use draw, paint, or graphics software to create visuals that will enhance a class project or report. Students responded with 83% perceiving they are able to do the task easily, 17% can do the task with help, 0% were unable to do the task, and 0% had no idea what this task means. Teachers perceived 24% of students able to do the task easily, 53% can do the task with help, 0% were unable to do the task, and 23% indicated they did not observe the task.

The data comparison for the performance task indicated a 59% difference in teacher and student perceptions in students' ability to do the task easily, a 36% difference in the perception that students can do the task with help, and a 0% difference in

perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Two: Design and produce a multimedia program. Students responded with 63% perceiving they are able to do the task easily, 34% can do the task with help, 3% were unable to do the task, and 0% had no idea what this task means. Teachers perceived 35% of students able to do the task easily, 30% can do the task with help, 0% were unable to do the task, and 35% indicated they did not observe the task.

The data comparison for the performance task indicated a 28% difference in teacher and student perceptions in students' ability to do the task easily, a 4% difference in the perception that students can do the task with help, and a 3% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Three: Plan and deliver a presentation using media and technology appropriate to topic, audience, purpose, or content. Students responded with 57% perceiving they are able to do the task easily, 31% can do the task with help, 6% were unable to do the task, and 6% had no idea what this task means. Teachers perceived 44% of students able to do the task easily, 31% can do the task with help, 0% were unable to do the task, and 25% indicated they did not observe the task.

The data comparison for the performance task indicated a 13% difference in teacher and student perceptions in students' ability to do the task easily, a 0% difference in the perception that students can do the task with help, and a 6% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

In reviewing the category of being able to do the task easily as required by the district and the DPI, 34% of the teachers and 68% of the students reported that they could do Performance Standard A.8.5 tasks easily. Thus, a discrepancy between the two was 34% which illustrated a need for work on this standard.

Performance Standard A Media and Technology A.8.6 By the end of Grade 8 students will evaluate the use of media and technology in a production or presentation. The performance indicators for Standard A.8.6 are shown in Table 8. Teacher and student responses were compared to determine a difference in perception of student ability.

Table 8—Data Comparison for Performance Standard A Media and Technology A.8.6

WITLS Performance Indicators	Do task easily			Do task with help			Unable to do task		
	Teachers	Students	% Difference	Teachers	Students	% Difference	Teachers	Students	% Difference
Determine the purpose of a specific production or presentation	30%	56%	26%	35%	29%	6%	6%	6%	0%
Describe the effectiveness of the media and technology used in a production or presentation	12%	37%	15%	53%	37%	16%	6%	17%	11%
Identify criteria for judging the technical quality of a production or presentation	12%	43%	31%	41%	34%	7%	12%	12%	0%
Judge how well the production or presentation meets identified criteria	6%	71%	65%	53%	14%	29%	6%	9%	3%
Recommend ways to improve future productions or presentations	6%	63%	57%	53%	29%	24%	6%	8%	2%
Composite Score	13%	54%	41%	47%	29%	18%	7%	10%	3%

Task One: Determine the purpose of a specific production or presentation. Students responded with 56% perceiving they are able to do the task easily, 29% can do the task with help, 6% were unable to do the task, and 9% had no idea what this task means. Teachers perceived 30% of students able to do the task easily, 35% can do the task with help, 6% were unable to do the task, and 29% indicated they did not observe the task.

The data comparison for the performance task indicated a 26% difference in teacher and student perceptions in students' ability to do the task easily, a 6% difference

in the perception that students can do the task with help, and a 0% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Two: Describe the effectiveness of the media and technology used in a production or presentation. Students responded with 37% perceiving they are able to do the task easily, 37% can do the task with help, 17% were unable to do the task, and 9% had no idea what this task means. Teachers perceived 12% of students able to do the task easily, 53% can do the task with help, 6% were unable to do the task, and 29% indicated they did not observe the task.

The data comparison for the performance task indicated a 15% difference in teacher and student perceptions in students' ability to do the task easily, a 16% difference in the perception that students can do the task with help, and an 11% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Three: Identify criteria for judging the technical quality of a production or presentation. Students responded with 43% perceiving they are able to do the task easily, 34% can do the task with help, 12% were unable to do the task, and 11% had no idea what this task means. Teachers perceived 12% of students able to do the task easily, 41% can do the task with help, 12% were unable to do the task, and 35% indicated they did not observe the task.

The data comparison for the performance task indicated a 31% difference in teacher and student perceptions in students' ability to do the task easily, a 7% difference in the perception that students can do the task with help, and a 0% difference in

perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Four: Judge how well the production or presentation meets identified criteria. Students responded with 71% perceiving they are able to do the task easily, 14% can do the task with help, 9% were unable to do the task, and 6% had no idea what this task means. Teachers perceived 6% of students able to do the task easily, 53% can do the task with help, 6% were unable to do the task, and 35% indicated they did not observe the task.

The data comparison for the performance task indicated a 65% difference in teacher and student perceptions in students' ability to do the task easily, a 29% difference in the perception that students can do the task with help, and a 3% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Five: Recommend ways to improve future productions or presentations. Students responded with 63% perceiving they are able to do the task easily, 29% can do the task with help, 8% were unable to do the task, and 0% had no idea what this task means. Teachers perceived 6% of students able to do the task easily, 53% can do the task with help, 6% were unable to do the task, and 35% indicated they did not observe the task.

The data comparison for the performance task indicated a 57% difference in teacher and student perceptions in students' ability to do the task easily, a 24% difference in the perception that students can do the task with help, and a 2% difference in

perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

In reviewing the category of being able to do the task easily as required by the district and the DPI, 13% of the teachers and 54% of the students reported that they could do Performance Standard A.8.1 tasks easily. Thus, a discrepancy between the two was 41% which illustrated a need for work on this standard.

Standard B Information and Inquiry. The following analysis pertains to Standard B Information and Inquiry. The content standard is *students in Wisconsin will access, evaluate, and apply information efficiently and effectively from a variety of sources in print, nonprint, and electronic formats to meet personal and academic needs.* Each performance standard for Standard B was analyzed separately and the results presented in the table included with the analysis.

Standard B Information and Inquiry B.8.1 By the end of Grade 8 students will define the need for information. The performance indicators for Standard B.8.1 are shown in Table 9. Teacher and student responses were compared to determine a difference in perception of student ability.

Table 9—Data Comparison for Performance Standard B Information and Inquiry B.8.1

WITLS Performance Indicators	Do task easily			Do task with help			Unable to do task		
	Teachers	Students	% Difference	Teachers	Students	% Difference	Teachers	Students	% Difference
Identify the information problem or question to be resolved	35%	54%	19%	35%	37%	2%	0%	3%	3%
Relate what is already known to the information needed	6%	51%	45%	59%	43%	4%	6%	3%	3%
Formulate general and specific research questions using a variety of questioning skills	0%	49%	49%	59%	40%	19%	12%	6%	6%
Revise and narrow the information questions to focus on the information need	6%	40%	34%	59%	43%	16%	6%	14%	8%
Composite Score	12%	49%	37%	53%	41%	12%	6%	7%	1%

Task One: Identify the information problem or question to be resolved. Students responded with 54% perceiving they are able to do the task easily, 37% can do the task with help, 3% were unable to do the task, and 6% had no idea what this task means. Teachers perceived 35% of students able to do the task easily, 35% can do the task with help, 0% were unable to do the task, and 30% indicated they did not observe the task.

The data comparison for the performance task indicated a 19% difference in teacher and student perceptions in students' ability to do the task easily, a 2% difference in the perception that students can do the task with help, and a 3% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Two: Relate what is already known to the information needed. Students responded with 51% perceiving they are able to do the task easily, 43% can do the task with help, 3% were unable to do the task, and 3% had no idea what this task means. Teachers perceived 6% of students able to do the task easily, 59% can do the task with help, 6% were unable to do the task, and 29% indicated they did not observe the task.

The data comparison for the performance task indicated a 45% difference in teacher and student perceptions in students' ability to do the task easily, a 4% difference in the perception that students can do the task with help, and a 3% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Three: Formulate general and specific research questions using a variety of questioning skills. Students responded with 49% perceiving they are able to do the task easily, 40% can do the task with help, 6% were unable to do the task, and 5% had no idea

what this task means. Teachers perceived 0% of students able to do the task easily, 59% can do the task with help, 12% were unable to do the task, and 29% indicated they did not observe the task.

The data comparison for the performance task indicated a 49% difference in teacher and student perceptions in students' ability to do the task easily, a 19% difference in the perception that students can do the task with help, and a 6% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Four: Revise and narrow the information questions to focus on the information need. Students responded with 40% perceiving they are able to do the task easily, 43% can do the task with help, 14% were unable to do the task, and 3% had no idea what this task means. Teachers perceived 6% of students able to do the task easily, 59% can do the task with help, 6% were unable to do the task, and 29% indicated they did not observe the task.

The data comparison for the performance task indicated a 34% difference in teacher and student perceptions in students' ability to do the task easily, a 16% difference in the perception that students can do the task with help, and an 8% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

In reviewing the category of being able to do the task easily as required by the district and the DPI, 12% of the teachers and 49% of the students reported that they could do Performance Standard B.8.1 tasks easily. Thus, a discrepancy between the two was 37% which illustrated a need for work on this standard.

Standard B Information and Inquiry B.8.2 By the end of Grade 8 students will develop information seeking strategies. The performance indicators for Standard B.8.2 are shown in Table 10. Teacher and student responses were compared to determine a difference in perception of student ability.

Table 10—Data Comparison for Performance Standard B Information and Inquiry B.8.2

WITLS Performance Indicators	Do task easily			Do task with help			Unable to do task		
	Teachers	Students	% Difference	Teachers	Students	% Difference	Teachers	Students	% Difference
Identify relevant sources of information including print, nonprint, electronic, human, and community resources	29%	37%	8%	53%	54%	1%	0%	3%	3%
Evaluate possible sources of information based on criteria of timeliness, genre, point of view, bias, and authority	12%	56%	44%	47%	25%	22%	12%	11%	1%
Select multiple sources that reflect differing or supporting points of view	6%	61%	55%	59%	31%	28%	6%	0%	6%
Identify and select keywords and phrases for each source, recognizing that different sources use different terminology for similar concepts	18%	69%	51%	59%	17%	42%	0%	0%	0%
Organize ideas, concepts, and phrases using webbing, outlines, trees, or other visual or graphic tools	6%	55%	49%	53%	39%	14%	12%	3%	9%
Focus search strategies on matching information needs with available resources	12%	56%	44%	53%	28%	25%	6%	11%	5%
Composite Score	14%	56%	42%	54%	32%	22%	6%	5%	1%

Task One: Identify relevant sources of information including print, nonprint, electronic, human, and community resources. Students responded with 37% perceiving they are able to do the task easily, 54% can do the task with help, 3% were unable to do the task, and 6% had no idea what this task means. Teachers perceived 29% of students able to do the task easily, 53% can do the task with help, 0% were unable to do the task, and 18% indicated they did not observe the task.

The data comparison for the performance task indicated a 8% difference in teacher and student perceptions in students' ability to do the task easily, a 1% difference in the perception that students can do the task with help, and a 3% difference in

perceiving that students are unable to do the task. The performance task should not be reviewed for curricular changes to strengthen student understanding and ability level.

Task Two: Evaluate possible sources of information based on criteria of timeliness, genre, point of view, bias, and authority. Students responded with 56% perceiving they are able to do the task easily, 25% can do the task with help, 11% were unable to do the task, and 8% had no idea what this task means. Teachers perceived 12% of students able to do the task easily, 47% can do the task with help, 12% were unable to do the task, and 29% indicated they did not observe the task.

The data comparison for the performance task indicated a 44% difference in teacher and student perceptions in students' ability to do the task easily, a 22% difference in the perception that students can do the task with help, and a 1% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Three: Select multiple sources that reflect differing or supporting points of view. Students responded with 61% perceiving they are able to do the task easily, 31% can do the task with help, 0% were unable to do the task, and 8% had no idea what this task means. Teachers perceived 6% of students able to do the task easily, 59% can do the task with help, 6% were unable to do the task, and 29% indicated they did not observe the task.

The data comparison for the performance task indicated a 55% difference in teacher and student perceptions in students' ability to do the task easily, a 28% difference in the perception that students can do the task with help, and a 6% difference in

perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Four: Identify and select keywords and phrases for each source, recognizing that different sources use different terminology for similar concepts. Students responded with 69% perceiving they are able to do the task easily, 17% can do the task with help, 0% were unable to do the task, and 14% had no idea what this task means. Teachers perceived 18% of students able to do the task easily, 59% can do the task with help, 0% were unable to do the task, and 23% indicated they did not observe the task.

The data comparison for the performance task indicated a 51% difference in teacher and student perceptions in students' ability to do the task easily, a 42% difference in the perception that students can do the task with help, and a 0% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Five: Organize ideas, concepts, and phrases using webbing, outlines, trees, or other visual or graphic tools. Students responded with 55% perceiving they are able to do the task easily, 39% can do the task with help, 3% were unable to do the task, and 3% had no idea what this task means. Teachers perceived 6% of students able to do the task easily, 53% can do the task with help, 12% were unable to do the task, and 29% indicated they did not observe the task.

The data comparison for the performance task indicated a 49% difference in teacher and student perceptions in students' ability to do the task easily, a 14% difference in the perception that students can do the task with help, and a 9% difference in

perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Six: Focus search strategies on matching information needs with available resources. Students responded with 56% perceiving they are able to do the task easily, 28% can do the task with help, 11% were unable to do the task, and 5% had no idea what this task means. Teachers perceived 12% of students able to do the task easily, 53% can do the task with help, 6% were unable to do the task, and 29% indicated they did not observe the task.

The data comparison for the performance task indicated a 44% difference in teacher and student perceptions in students' ability to do the task easily, a 25% difference in the perception that students can do the task with help, and a 5% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

In reviewing the category of being able to do the task easily as required by the district and the DPI, 14% of the teachers and 56% of the students reported that they could do Performance Standard B.8.2 tasks easily. Thus, a discrepancy between the two was 42% which illustrated a need for work on this standard.

Standard B Information and Inquiry B.8.3 By the end of Grade 8 students will locate and access information sources. The performance indicators for Standard B.8.3 are shown in Table 11. Teacher and student responses were compared to determine a difference in perception of student ability.

Table 11—Data Comparison for Performance Standard B Information and Inquiry B.8.3

WITLS Performance Indicators	Do task easily			Do task with help			Unable to do task		
	Teachers	Students	% Difference	Teachers	Students	% Difference	Teachers	Students	% Difference
Identify the classification system used in the school library media center, public library, and other local libraries	30%	50%	20%	29%	39%	10%	0%	6%	6%
Locate materials using the classification systems of the school library media center and the public library	30%	53%	23%	29%	39%	10%	0%	3%	3%
Recognize differences in searching bibliographic records, abstracts, or full text databases	0%	47%	47%	47%	42%	5%	12%	3%	9%
Search for information by subject, author, title, and keyword	53%	86%	33%	35%	14%	21%	0%	0%	0%
Use Boolean operators with human or programmed guidance to narrow or broaden searches	0%	19%	19%	47%	56%	9%	0%	0%	0%
Use biographical dictionaries, thesauri, and other common reference tools in both print and electronic formats	29%	56%	27%	53%	28%	25%	0%	8%	8%
Use a search engine to locate appropriate internet or intranet resources	65%	86%	21%	29%	11%	18%	0%	0%	0%
Composite Score	30%	57%	27%	38%	33%	5%	2%	3%	1%

Task One: Identify the classification system used in the school library media center, public library, and other local libraries. Students responded with 50% perceiving they are able to do the task easily, 39% can do the task with help, 6% were unable to do the task, and 5% had no idea what this task means. Teachers perceived 30% of students able to do the task easily, 29% can do the task with help, 0% were unable to do the task, and 41% indicated they did not observe the task.

The data comparison for the performance task indicated a 20% difference in teacher and student perceptions in students' ability to do the task easily, a 10% difference in the perception that students can do the task with help, and a 6% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Two: Locate materials using the classification systems of the school library media center and the public library. Students responded with 53% perceiving they are able to do the task easily, 39% can do the task with help, 3% were unable to do the task, and 5% had no idea what this task means. Teachers perceived 30% of students able to do the task easily, 29% can do the task with help, 0% were unable to do the task, and 41% indicated they did not observe the task.

The data comparison for the performance task indicated a 23% difference in teacher and student perceptions in students' ability to do the task easily, a 10% difference in the perception that students can do the task with help, and a 3% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Three: Recognize differences in searching bibliographic records, abstracts, or full text databases. Students responded with 47% perceiving they are able to do the task easily, 42% can do the task with help, 3% were unable to do the task, and 8% had no idea what this task means. Teachers perceived 0% of students able to do the task easily, 47% can do the task with help, 12% were unable to do the task, and 41% indicated they did not observe the task.

The data comparison for the performance task indicated a 47% difference in teacher and student perceptions in students' ability to do the task easily, a 5% difference in the perception that students can do the task with help, and a 9% difference in perceiving that students are unable to do the task. The performance standard should be reviewed for possible curricular changes and professional development.

Task Four: Search for information by subject, author, title, and keyword. Students responded with 86% perceiving they are able to do the task easily, 14% can do the task with help, 0% were unable to do the task, and 0% had no idea what this task means. Teachers perceived 53% of students able to do the task easily, 35% can do the task with help, 0% were unable to do the task, and 12% indicated they did not observe the task.

The data comparison for the performance task indicated a 33% difference in teacher and student perceptions in students' ability to do the task easily, a 21% difference in the perception that students can do the task with help, and a 0% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Five: Use Boolean operators with human or programmed guidance to narrow or broaden searches. Students responded with 19% perceiving they are able to do the task easily, 56% can do the task with help, 0% were unable to do the task, and 25% had no idea what this task means. Teachers perceived 0% of students able to do the task easily, 47% can do the task with help, 0% were unable to do the task, and 53% indicated they did not observe the task.

The data comparison for the performance task indicated a 19% difference in teacher and student perceptions in students' ability to do the task easily, a 9% difference in the perception that students can do the task with help, and a 0% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Six: Use biographical dictionaries, thesauri, and other common reference tools in both print and electronic formats. Students responded with 56% perceiving they

are able to do the task easily, 28% can do the task with help, 8% were unable to do the task, and 8% had no idea what this task means. Teachers perceived 29% of students able to do the task easily, 53% can do the task with help, 0% were unable to do the task, and 18% indicated they did not observe the task.

The data comparison for the performance task indicated a 27% difference in teacher and student perceptions in students' ability to do the task easily, a 25% difference in the perception that students can do the task with help, and an 8% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Seven: Use a search engine to locate appropriate internet or intranet resources. Students responded with 86% perceiving they are able to do the task easily, 11% can do the task with help, 0% were unable to do the task, and 3% had no idea what this task means. Teachers perceived 65% of students able to do the task easily, 29% can do the task with help, 0% were unable to do the task, and 6% indicated they did not observe the task.

The data comparison for the performance task indicated a 21% difference in teacher and student perceptions in students' ability to do the task easily, an 18% difference in the perception that students can do the task with help, and a 0% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

In reviewing the category of being able to do the task easily as required by the district and the DPI, 30% of the teachers and 57% of the students reported that they could

do Performance Standard B.8.3 tasks easily. Thus, a discrepancy between the two was 27% which illustrated a need for work on this standard.

Performance Standard B Information and Inquiry B.8.4 By the end of Grade 8 students will evaluate and select information from a variety of print, nonprint, and electronic formats. The performance indicators for Standard B.8.4 are shown in Table 12. Teacher and student responses were compared to determine a difference in perception of student ability.

Table 12—Data Comparison for Performance Standard B Information and Inquiry B.8.4

WITLS Performance Indicators	Do task easily			Do task with help			Unable to do task		
	Teachers	Students	% Difference	Teachers	Students	% Difference	Teachers	Students	% Difference
Examine selected resources for pertinent information using previewing techniques to scan for major concepts for keywords	24%	42%	18%	35%	42%	7%	0%	5%	5%
Differentiate between primary and secondary sources	12%	56%	44%	29%	31%	2%	12%	5%	7%
Distinguish between fact and opinion; recognize point of view or bias	6%	72%	66%	53%	19%	34%	12%	6%	6%
Determine if information is timely, valid, accurate, comprehensive, and relevant	12%	71%	59%	59%	17%	42%	12%	9%	3%
Analyze and evaluate information presented in charts, graphs, and tables	19%	78%	59%	44%	14%	30%	6%	8%	2%
Locate indicators of authority for all sources of information	12%	42%	30%	35%	44%	9%	12%	3%	9%
Select resources in formats appropriate to content and information need and compatible with their own learning style	6%	56%	50%	47%	31%	16%	12%	5%	7%
Composite Score	13%	60%	47%	43%	28%	15%	9%	6%	3%

Task One: Examine selected resources for pertinent information. Students responded with 42% perceiving they are able to do the task easily, 42% can do the task with help, 5% were unable to do the task, and 11% had no idea what this task means. Teachers perceived 24% of students able to do the task easily, 35% can do the task with help, 0% were unable to do the task, and 41% indicated they did not observe the task.

The data comparison for the performance task indicated an 18% difference in teacher and student perceptions in students' ability to do the task easily, a 7% difference in the perception that students can do the task with help, and a 5% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Two: Differentiate between primary and secondary sources. Students responded with 56% perceiving they are able to do the task easily, 31% can do the task with help, 5% were unable to do the task, and 8% had no idea what this task means. Teachers perceived 12% of students able to do the task easily, 29% can do the task with help, 12% were unable to do the task, and 47% indicated they did not observe the task.

The data comparison for the performance task indicated a 44% difference in teacher and student perceptions in students' ability to do the task easily, a 2% difference in the perception that students can do the task with help, and a 7% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Three: Distinguish between fact and opinion; recognize point of view or bias. Students responded with 72% perceiving they are able to do the task easily, 19% can do the task with help, 6% were unable to do the task, and 3% had no idea what this task means. Teachers perceived 6% of students able to do the task easily, 53% can do the task with help, 12% were unable to do the task, and 29% indicated they did not observe the task.

The data comparison for the performance task indicated a 66% difference in teacher and student perceptions in students' ability to do the task easily, a 34% difference

in the perception that students can do the task with help, and a 6% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Four: Determine if information is timely, valid, accurate, comprehensive, and relevant. Students responded with 71% perceiving they are able to do the task easily, 17% can do the task with help, 9% were unable to do the task, and 3% had no idea what this task means. Teachers perceived 12% of students able to do the task easily, 59% can do the task with help, 12% were unable to do the task, and 17% indicated they did not observe the task.

The data comparison for the performance task indicated a 59% difference in teacher and student perceptions in students' ability to do the task easily, a 42% difference in the perception that students can do the task with help, and a 3% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Five: Analyze and evaluate information presented in charts, graphs, and tables. Students responded with 78% perceiving they are able to do the task easily, 14% can do the task with help, 8% were unable to do the task, and 0% had no idea what this task means. Teachers perceived 19% of students able to do the task easily, 44% can do the task with help, 6% were unable to do the task, and 31% indicated they did not observe the task.

The data comparison for the performance task indicated a 59% difference in teacher and student perceptions in students' ability to do the task easily, a 30% difference in the perception that students can do the task with help, and a 2% difference in

perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Six: Locate indicators of authority for all sources of information. Students responded with 55% perceiving they are able to do the task easily, 39% can do the task with help, 3% were unable to do the task, and 3% had no idea what this task means. Teachers perceived 6% of students able to do the task easily, 53% can do the task with help, 12% were unable to do the task, and 29% indicated they did not observe the task.

The data comparison for the performance task indicated a 30% difference in teacher and student perceptions in students' ability to do the task easily, a 9% difference in the perception that students can do the task with help, and a 9% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Seven: Select resources in formats appropriate to content and information need and compatible with their own learning style. Students responded with 56% perceiving they are able to do the task easily, 31% can do the task with help, 5% were unable to do the task, and 8% had no idea what this task means. Teachers perceived 6% of students able to do the task easily, 47% can do the task with help, 12% were unable to do the task, and 35% indicated they did not observe the task.

The data comparison for the performance task indicated a 50% difference in teacher and student perceptions in students' ability to do the task easily, a 16% difference in the perception that students can do the task with help, and a 7% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

In reviewing the category of being able to do the task easily as required by the district and the DPI, 13% of the teachers and 60% of the students reported that they could do Performance Standard B.8.4 tasks easily. Thus, a discrepancy between the two was 47% which illustrated a need for work on this standard.

Performance Standard B Information and Inquiry B.8.5 By the end of Grade 8 students will record and organize information. The performance indicators for Standard B.8.5 are shown in Table 13. Teacher and student responses were compared to determine a difference in perception of student ability.

Table 13—Data Comparison for Performance Standard B Information and Inquiry B.8.5

WITLS Performance Indicators	Do task easily			Do task with help			Unable to do task		
	Teachers	Students	% Difference	Teachers	Students	% Difference	Teachers	Students	% Difference
Use notetaking strategies including summarizing and paraphrasing	6%	61%	55%	53%	25%	28%	12%	3%	9%
Record concise notes in a prescribed manner, including bibliographic information	0%	42%	42%	53%	42%	11%	18%	5%	13%
Cite the source of specific quotations or visuals using footnotes, endnotes, or internal citation formats	6%	50%	44%	47%	36%	11%	12%	8%	4%
Organize and compare information using graphic organizers, storyboarding, and other relational techniques	12%	42%	30%	35%	42%	7%	6%	8%	2%
Organize information in a systematic manner appropriate to question, audience, and intended format of presentation	18%	42%	24%	35%	47%	12%	18%	3%	15%
Record sources of information in a standardized bibliographic format	6%	42%	36%	53%	42%	11%	6%	3%	3%
Composite Score	8%	47%	39%	46%	39%	7%	12%	5%	7%

Task One: Use notetaking strategies including summarizing and paraphrasing. Students responded with 61% perceiving they are able to do the task easily, 25% can do the task with help, 3% were unable to do the task, and 11% had no idea what this task means. Teachers perceived 6% of students able to do the task easily, 53% can do the task with help, 12% were unable to do the task, and 29% indicated they did not observe the task.

The data comparison for the performance task indicated a 55% difference in teacher and student perceptions in students' ability to do the task easily, a 28% difference in the perception that students can do the task with help, and a 9% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Two: Record concise notes in a prescribed manner, including bibliographic information. Students responded with 42% perceiving they are able to do the task easily, 42% can do the task with help, 5% were unable to do the task, and 11% had no idea what this task means. Teachers perceived 0% of students able to do the task easily, 53% can do the task with help, 18% were unable to do the task, and 29% indicated they did not observe the task.

The data comparison for the performance task indicated a 42% difference in teacher and student perceptions in students' ability to do the task easily, an 11% difference in the perception that students can do the task with help, and a 13% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Three: Cite the source of specific quotations or visuals using footnotes, endnotes, or internal citation formats. Students responded with 50% perceiving they are able to do the task easily, 36% can do the task with help, 8% were unable to do the task, and 6% had no idea what this task means. Teachers perceived 6% of students able to do the task easily, 47% can do the task with help, 12% were unable to do the task, and 35% indicated they did not observe the task.

The data comparison for the performance task indicated a 44% difference in teacher and student perceptions in students' ability to do the task easily, a 11% difference in the perception that students can do the task with help, and a 4% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Four: Organize and compare information using graphic organizers, storyboarding, and other relational techniques. Students responded with 42% perceiving they are able to do the task easily, 42% can do the task with help, 8% were unable to do the task, and 8% had no idea what this task means. Teachers perceived 12% of students able to do the task easily, 35% can do the task with help, 6% were unable to do the task, and 47% indicated they did not observe the task.

The data comparison for the performance task indicated a 30% difference in teacher and student perceptions in students' ability to do the task easily, a 7% difference in the perception that students can do the task with help, and a 2% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Five: Organize information in a systematic manner appropriate to question, audience, and intended format of presentation. Students responded with 42% perceiving they are able to do the task easily, 47% can do the task with help, 3% were unable to do the task, and 8% had no idea what this task means. Teachers perceived 18% of students able to do the task easily, 35% can do the task with help, 18% were unable to do the task, and 29% indicated they did not observe the task.

The data comparison for the performance task indicated a 24% difference in teacher and student perceptions in students' ability to do the task easily, a 12% difference in the perception that students can do the task with help, and a 15% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Six: Record sources of information in a standardized bibliographic format. Students responded with 42% perceiving they are able to do the task easily, 42% can do the task with help, 3% were unable to do the task, and 13% had no idea what this task means. Teachers perceived 6% of students able to do the task easily, 53% can do the task with help, 6% were unable to do the task, and 35% indicated they did not observe the task.

The data comparison for the performance task indicated a 36% difference in teacher and student perceptions in students' ability to do the task easily, an 11% difference in the perception that students can do the task with help, and a 3% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

In reviewing the category of being able to do the task easily as required by the district and the DPI, 8% of the teachers and 47% of the students reported that they could do Performance Standard B.8.5 tasks easily. Thus, a discrepancy between the two was 39% which illustrated a need for work on this standard.

Performance Standard B Information and Inquiry B.8.6 By the end of Grade 8 students will interpret and use information to solve the problem or answer the question. The performance indicators for Standard B.8.6 are shown in Table 14. Teacher and

student responses were compared to determine a difference in perception of student ability.

Table 14—Data Comparison for Performance Standard B Information and Inquiry B.8.6

WITLS Performance Indicators	Do task easily			Do task with help			Unable to do task		
	Teachers	Students	% Difference	Teachers	Students	% Difference	Teachers	Students	% Difference
Compare and integrate new information with prior knowledge	18%	70%	52%	53%	19%	34%	6%	3%	3%
Analyze information for relevance to the question	12%	61%	49%	59%	20%	39%	6%	8%	2%
Analyze findings to determine need for additional information	6%	75%	69%	59%	19%	40%	6%	0%	6%
Gather and synthesize additional information as needed	6%	69%	63%	47%	17%	30%	18%	3%	15%
Draw conclusions to address the problem or question	12%	75%	63%	47%	17%	30%	18%	5%	**13%**
Composite Score	11%	70%	59%	53%	18%	35%	11%	4%	7%

Task One: Compare and integrate new information with prior knowledge. Students responded with 70% perceiving they are able to do the task easily, 19% can do the task with help, 3% were unable to do the task, and 8% had no idea what this task means. Teachers perceived 18% of students able to do the task easily, 53% can do the task with help, 6% were unable to do the task, and 23% indicated they did not observe the task.

The data comparison for the performance task indicated a 52% difference in teacher and student perceptions in students' ability to do the task easily, a 34% difference in the perception that students can do the task with help, and a 3% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Two: Analyze information for relevance to the question. Students responded with 61% perceiving they are able to do the task easily, 20% can do the task with help, 8% were unable to do the task, and 11% had no idea what this task means. Teachers

perceived 12% of students able to do the task easily, 59% can do the task with help, 6% were unable to do the task, and 23% indicated they did not observe the task.

The data comparison for the performance task indicated a 49% difference in teacher and student perceptions in students' ability to do the task easily, a 39% difference in the perception that students can do the task with help, and a 2% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Three: Analyze findings to determine need for additional information. Students responded with 75% perceiving they are able to do the task easily, 19% can do the task with help, 0% were unable to do the task, and 6% had no idea what this task means. Teachers perceived 6% of students able to do the task easily, 59% can do the task with help, 6% were unable to do the task, and 29% indicated they did not observe the task.

The data comparison for the performance task indicated a 69% difference in teacher and student perceptions in students' ability to do the task easily, a 40% difference in the perception that students can do the task with help, and a 6% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Four: Gather and synthesize additional information as needed. Students responded with 69% perceiving they are able to do the task easily, 17% can do the task with help, 3% were unable to do the task, and 11% had no idea what this task means. Teachers perceived 6% of students able to do the task easily, 47% can do the task with help, 18% were unable to do the task, and 29% indicated they did not observe the task.

The data comparison for the performance task indicated a 63% difference in teacher and student perceptions in students' ability to do the task easily, a 30% difference in the perception that students can do the task with help, and a 15% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Five: Draw conclusions to address the problem or question. Students responded with 75% perceiving they are able to do the task easily, 17% can do the task with help, 5% were unable to do the task, and 3% had no idea what this task means. Teachers perceived 12% of students able to do the task easily, 47% can do the task with help, 18% were unable to do the task, and 23% indicated they did not observe the task.

The data comparison for the performance task indicated a 63% difference in teacher and student perceptions in students' ability to do the task easily, a 30% difference in the perception that students can do the task with help, and a 13% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

In reviewing the category of being able to do the task easily as required by the district and the DPI, 11% of the teachers and 70% of the students reported that they could do Performance Standard B.8.6 tasks easily. Thus, a discrepancy between the two was 59% which illustrated a need for work on this standard.

Performance Standard B Information and Inquiry B.8.7 By the end of Grade 8 students will communicate the results of research and inquiry in an appropriate format. The performance indicators for Standard B.8.7 are shown in Table 15. Teacher and

student responses were compared to determine a difference in perception of student ability.

Table 15—Data Comparison for Performance Standard B Information and Inquiry B.8.7

WITLS Performance Indicators	Do task easily			Do task with help			Unable to do task		
	Teachers	Students	% Difference	Teachers	Students	% Difference	Teachers	Students	% Difference
Determine the audience and purpose for the product or presentation	30%	61%	31%	41%	33%	8%	0%	3%	3%
Identify possible communication or production formats	12%	72%	60%	41%	22%	19%	12%	3%	9%
Select a presentation format appropriate to the topic, audience, purpose, content, and technology available	6%	70%	63%	56%	22%	34%	0%	0%	0%
Develop an original product or presentation which addresses the information problem or question	12%	58%	46%	59%	31%	28%	0%	6%	6%
Composite Score	15%	65%	50%	49%	27%	22%	3%	3%	0%

Task One: Determine the audience and purpose for the product or presentation. Students responded with 61% perceiving they are able to do the task easily, 33% can do the task with help, 3% were unable to do the task, and 3% had no idea what this task means. Teachers perceived 30% of students able to do the task easily, 41% can do the task with help, 0% were unable to do the task, and 29% indicated they did not observe the task.

The data comparison for the performance task indicated a 31% difference in teacher and student perceptions in students' ability to do the task easily, a 8% difference in the perception that students can do the task with help, and a 3% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Two: Identify possible communication or production formats. Students responded with 72% perceiving they are able to do the task easily, 22% can do the task with help, 3% were unable to do the task, and 3% had no idea what this task means.

Teachers perceived 12% of students able to do the task easily, 41% can do the task with help, 12% were unable to do the task, and 35% indicated they did not observe the task.

The data comparison for the performance task indicated a 60% difference in teacher and student perceptions in students' ability to do the task easily, a 19% difference in the perception that students can do the task with help, and a 9% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Three: Select a presentation format appropriate to the topic, audience, purpose, content, and technology available. Students responded with 70% perceiving they are able to do the task easily, 22% can do the task with help, 0% were unable to do the task, and 8% had no idea what this task means. Teachers perceived 6% of students able to do the task easily, 56% can do the task with help, 0% were unable to do the task, and 38% indicated they did not observe the task.

The data comparison for the performance task indicated a 63% difference in teacher and student perceptions in students' ability to do the task easily, a 34% difference in the perception that students can do the task with help, and a 0% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Four: Develop an original product or presentation which addresses the information problem or question. Students responded with 58% perceiving they are able to do the task easily, 31% can do the task with help, 6% were unable to do the task, and 5% had no idea what this task means. Teachers perceived 12% of students able to do the

task easily, 59% can do the task with help, 0% were unable to do the task, and 29% indicated they did not observe the task.

The data comparison for the performance task indicated a 46% difference in teacher and student perceptions in students' ability to do the task easily, a 28% difference in the perception that students can do the task with help, and a 6% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

In reviewing the category of being able to do the task easily as required by the district and the DPI, 15% of the teachers and 65% of the students reported that they could do Performance Standard B.8.7 tasks easily. Thus, a discrepancy between the two was 50% which illustrated a need for work on this standard.

Performance Standard B Information and Inquiry B.8.8 By the end of Grade 8 students will evaluate the information product and process. The performance indicators for Standard B.8.8 are shown in Table 16. Teacher and student responses were compared to determine a difference in perception of student ability.

Table 16—Data Comparison for Performance Standard B Information and Inquiry B.8.8

WITLS Performance Indicators	Do task easily			Do task with help			Unable to do task		
	Teachers	Students	% Difference	Teachers	Students	% Difference	Teachers	Students	% Difference
Identify the criteria to be used in judging both the product and the process	12%	44%	32%	35%	42%	7%	6%	6%	0%
Determine how well research conclusions and product meet the original information need or question based on the identified criteria	13%	36%	23%	31%	50%	19%	6%	6%	0%
Assess the process based on identified criteria	12%	70%	58%	35%	22%	13%	6%	8%	2%
Summarize ways in which the process and product can be improved	12%	58%	46%	35%	39%	4%	6%	0%	6%
Composite Score	12%	52%	40%	34%	38%	4%	6%	5%	1%

Task One: Identify the criteria to be used in judging both the product and the process. Students responded with 44% perceiving they are able to do the task easily, 42% can do the task with help, 6% were unable to do the task, and 8% had no idea what this task means. Teachers perceived 12% of students able to do the task easily, 35% can do the task with help, 6% were unable to do the task, and 47% indicated they did not observe the task.

The data comparison for the performance task indicated a 32% difference in teacher and student perceptions in students' ability to do the task easily, a 7% difference in the perception that students can do the task with help, and a 0% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Two: Determine how well research conclusions and product meet the original information need or question based on the identified criteria. Students responded with 36% perceiving they are able to do the task easily, 50% can do the task with help, 6% were unable to do the task, and 8% had no idea what this task means Teachers perceived 13% of students able to do the task easily, 31% can do the task with help, 6% were unable to do the task, and 50% indicated they did not observe the task.

The data comparison for the performance task indicated a 23% difference in teacher and student perceptions in students' ability to do the task easily, a 19% difference in the perception that students can do the task with help, and a 0% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Three: Assess the process based on identified criteria. Students responded with 70% perceiving they are able to do the task easily, 22% can do the task with help, 8% were unable to do the task, and 0% had no idea what this task means. Teachers perceived 12% of students able to do the task easily, 35% can do the task with help, 6% were unable to do the task, and 47% indicated they did not observe the task.

The data comparison for the performance task indicated a 58% difference in teacher and student perceptions in students' ability to do the task easily, a 13% difference in the perception that students can do the task with help, and a 2% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Four: Summarize ways in which the process and product can be improved. Students responded with 58% perceiving they are able to do the task easily, 39% can do the task with help, 0% were unable to do the task, and 3% had no idea what this task means. Teachers perceived 12% of students able to do the task easily, 35% can do the task with help, 6% were unable to do the task, and 47% indicated they did not observe the task.

The data comparison for the performance task indicated a 46% difference in teacher and student perceptions in students' ability to do the task easily, a 4% difference in the perception that students can do the task with help, and a 6% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

In reviewing the category of being able to do the task easily as required by the district and the DPI, 12% of the teachers and 52% of the students reported that they could

do Performance Standard B.8.8 tasks easily. Thus, a discrepancy between the two was 40% which illustrated a need for work on this standard.

Standard C Independent Learning. The following analysis pertains to Standard C Independent Learning. The content standard is *students in Wisconsin will apply information and technology skills to issues of personal and academic interest by actively and independently seeking information; demonstrating critical and discriminating reading, listening, and viewing habits; and, striving for personal excellence in learning and career pursuits.* Each performance standard for Standard C was analyzed separately and the results presented in the table included with each analysis.

Performance Standard C Independent Learning C.8.1 By the end of Grade 8 students will pursue information related to various dimensions of personal well-being and academic success. The performance indicators for Standard C.8.1 are shown in Table 17. Teacher and student responses were compared to determine a difference in perception of student ability.

Table 17—Data Comparison for Performance Standard C Independent Learning C.8.1

WITLS Performance Indicators	Do task easily			Do task with help			Unable to do task		
	Teachers	Students	% Difference	Teachers	Students	% Difference	Teachers	Students	% Difference
Identify topics of interest and seek relevant information about them	59%	75%	16%	35%	22%	13%	0%	3%	3%
Identify information appropriate for decision-making and personal interest	47%	66%	19%	47%	28%	19%	0%	3%	3%
Recognize that accurate and complete information is basic to sound decisions in both personal and academic pursuits	41%	58%	17%	53%	28%	25%	0%	11%	11%
Composite Score	49%	66%	17%	45%	26%	19%	0%	6%	6%

Task One: Identify topics of interest and seek relevant information about them. Students responded with 75% perceiving they are able to do the task easily, 22% can do the task with help, 3% were unable to do the task, and 0% had no idea what this task

means. Teachers perceived 59% of students able to do the task easily, 35% can do the task with help, 0% were unable to do the task, and 6% indicated they did not observe the task.

The data comparison for the performance task indicated a 16% difference in teacher and student perceptions in students' ability to do the task easily, a 13% difference in the perception that students can do the task with help, and a 3% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Two: Identify information appropriate for decision-making and personal interest. Students responded with 66% perceiving they are able to do the task easily, 28% can do the task with help, 3% were unable to do the task, and 3% had no idea what this task means. Teachers perceived 47% of students able to do the task easily, 47% can do the task with help, 0% were unable to do the task, and 6% indicated they did not observe the task.

The data comparison for the performance task indicated a 19% difference in teacher and student perceptions in students' ability to do the task easily, a 19% difference in the perception that students can do the task with help, and a 3% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Three: Recognize that accurate and complete information is basic to sound decision in both personal and academic pursuits. Students responded with 58% perceiving they are able to do the task easily, 28% can do the task with help, 11% were unable to do the task, and 3% had no idea what this task means. Teachers perceived 41%

of students able to do the task easily, 53% can do the task with help, 0% were unable to do the task, and 6% indicated they did not observe the task.

The data comparison for the performance task indicated a 17% difference in teacher and student perceptions in students' ability to do the task easily, a 25% difference in the perception that students can do the task with help, and an 11% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

In reviewing the category of being able to do the task easily as required by the district and the DPI, 49% of the teachers and 66% of the students reported that they could do Performance Standard C.8.1 tasks easily. Thus, a discrepancy between the two was 17% which illustrated a need for work on this standard.

Performance Standard C Independent Learning C.8.2 By the end of Grade 8 students will appreciate and derive meaning from literature and other creative expressions of information. The performance indicators for Standard C.8.2 are shown in Table 18. Teacher and student responses were compared to determine a difference in perception of student ability.

Table 18—Data Comparison for Performance Standard C Independent Learning C.8.2

WITLS Performance Indicators	Do task easily			Do task with help			Unable to do task		
	Teachers	Students	% Difference	Teachers	Students	% Difference	Teachers	Students	% Difference
Recognize that reviews, evaluations, and guidance from teacher, library media specialists, and others assist in the selection of appropriate literature and creative expression of information	35%	39%	4%	41%	42%	1%	0%	0%	0%
Identify and pursue personal criteria for choosing literature and other creative expressions of information	29%	53%	24%	53%	30%	23%	0%	3%	3%
Relate literature and creative expressions of information to personal experiences	18%	67%	49%	53%	22%	31%	6%	6%	0%
Relate literature and creative expressions of information to other literature or creative expressions of information	18%	47%	29%	47%	36%	11%	6%	0%	6%
Composite Score	25%	52%	27%	49%	33%	16%	3%	2%	1%

Task One: Recognize that reviews, evaluations, and guidance from teacher, library media specialists, and others assist in the selection of appropriate literature and creative expression of information. Students responded with 39% perceiving they are able to do the task easily, 42% can do the task with help, 0% were unable to do the task, and 9% had no idea what this task means. Teachers perceived 35% of students able to do the task easily, 42% can do the task with help, 0% were unable to do the task, and 24% indicated they did not observe the task.

The data comparison for the performance task indicated a 4% difference in teacher and student perceptions in students' ability to do the task easily, a 1% difference in the perception that students can do the task with help, and a 0% difference in perceiving that students are unable to do the task. The performance task should not be reviewed for curricular changes to strengthen student understanding and ability level.

Task Two: Identify and pursue personal criteria for choosing literature and other creative expressions of information. Students responded with 53% perceiving they are

able to do the task easily, 30% can do the task with help, 3% were unable to do the task, and 14% had no idea what this task means. Teachers perceived 29% of students able to do the task easily, 53% can do the task with help, 0% were unable to do the task, and 18% indicated they did not observe the task.

The data comparison for the performance task indicated a 24% difference in teacher and student perceptions in students' ability to do the task easily, a 23% difference in the perception that students can do the task with help, and a 3% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Three: Relate literature and creative expressions of information to personal experiences. Students responded with 67% perceiving they are able to do the task easily, 22% can do the task with help, 6% were unable to do the task, and 5% had no idea what this task means. Teachers perceived 18% of students able to do the task easily, 53% can do the task with help, 6% were unable to do the task, and 23% indicated they did not observe the task.

The data comparison for the performance task indicated a 49% difference in teacher and student perceptions in students' ability to do the task easily, a 31% difference in the perception that students can do the task with help, and a 0% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Four: Relate literature and creative expressions of information to other literature or creative expression of information. Students responded with 47% perceiving they are able to do the task easily, 36% can do the task with help, 0% were unable to do

the task, and 17% had no idea what this task means. Teachers perceived 18% of students able to do the task easily, 47% can do the task with help, 6% were unable to do the task, and 29% indicated they did not observe the task.

The data comparison for the performance task indicated a 29% difference in teacher and student perceptions in students' ability to do the task easily, a 11% difference in the perception that students can do the task with help, and an 6% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

In reviewing the category of being able to do the task easily as required by the district and the DPI, 25% of the teachers and 52% of the students reported that they could do Performance Standard C.8.2 tasks easily. Thus, a discrepancy between the two was 27% which illustrated a need for work on this standard.

Performance Standard C Independent Learning C.8.3 By the end of Grade 8 students will develop competence and selectivity in reading, listening, and viewing. The performance indicators for Standard C.8.3 are shown in Table 19. Teacher and student responses were compared to determine a difference in perception of student ability.

Table 19—Data Comparison for Performance Standard C Independent Learning C.8.3

WITLS Performance Indicators	Do task easily			Do task with help			Unable to do task		
	Teachers	Students	% Difference	Teachers	Students	% Difference	Teachers	Students	% Difference
Choose materials at appropriate developmental levels	23%	74%	51%	53%	20%	33%	0%	6%	6%
Identify and select materials that reflect diverse perspectives	18%	54%	36%	59%	37%	22%	0%	0%	0%
Identify characteristics of common literary forms	24%	54%	30%	29%	37%	8%	12%	0%	12%
Composite Score	22%	61%	39%	47%	31%	16%	4%	2%	2%

Task One: Choose materials at appropriate developmental levels. Students responded with 74% perceiving they are able to do the task easily, 20% can do the task

with help, 6% were unable to do the task, and 0% had no idea what this task means. Teachers perceived 23% of students able to do the task easily, 53% can do the task with help, 0% were unable to do the task, and 24% indicated they did not observe the task.

The data comparison for the performance task indicated a 51% difference in teacher and student perceptions in students' ability to do the task easily, a 33% difference in the perception that students can do the task with help, and a 6% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Two: Identify and select materials that reflect diverse perspectives. Students responded with 54% perceiving they are able to do the task easily, 37% can do the task with help, 0% were unable to do the task, and 9% had no idea what this task means. Teachers perceived 18% of students able to do the task easily, 59% can do the task with help, 0% were unable to do the task, and 23% indicated they did not observe the task.

The data comparison for the performance task indicated a 36% difference in teacher and student perceptions in students' ability to do the task easily, a 22% difference in the perception that students can do the task with help, and a 0% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Three: Identify characteristics of common literacy forms. Students responded with 54% perceiving they are able to do the task easily, 37% can do the task with help, 0% were unable to do the task, and 9% had no idea what this task means. Teachers perceived 24% of students able to do the task easily, 29% can do the task with help, 12% were unable to do the task, and 35% indicated they did not observe the task.

The data comparison for the performance task indicated a 30% difference in teacher and student perceptions in students' ability to do the task easily, an 8% difference in the perception that students can do the task with help, and a 12% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Four: Recognize how words, images, sounds, and illustrations can be constructed to convey specific messages, viewpoints, and values. Students responded with 65% perceiving they are able to do the task easily, 26% can do the task with help, 6% were unable to do the task, and 3% had no idea what this task means. Teachers perceived 12% of students able to do the task easily, 65% can do the task with help, 0% were unable to do the task, and 23% indicated they did not observe the task.

The data comparison for the performance task indicated a 53% difference in teacher and student perceptions in students' ability to do the task easily, a 39% difference in the perception that students can do the task with help, and a 6% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

In reviewing the category of being able to do the task easily as required by the district and the DPI, 22% of the teachers and 61% of the students reported that they could do Performance Standard C.8.3 tasks easily. Thus, a discrepancy between the two was 39% which illustrated a need for work on this standard.

Performance Standard C Independent Learning C.8.4 By the end of Grade 8 students will develop competence and selectivity in reading, listening, and viewing. The

performance indicators for Standard C.8.4 are shown in Table 20. Teacher and student responses were compared to determine a difference in perception of student ability.

Table 20—Data Comparison for Performance Standard C Independent Learning C.8.4

WITLS Performance Indicators	Do task easily			Do task with help			Unable to do task		
	Teachers	Students	% Difference	Teachers	Students	% Difference	Teachers	Students	% Difference
Participate in decisions about group and classroom projects and learning objectives	47%	72%	25%	53%	25%	28%	0%	3%	3%
Identify and select topics of personal interest to expand classroom learning projects	47%	61%	14%	47%	31%	16%	0%	5%	5%
Recommend criteria for judging success of learning projects	23%	55%	32%	53%	42%	11%	12%	0%	12%
Establish goals and develop a plan for completing projects on time and within the scope of the assignment	41%	72%	31%	41%	25%	16%	0%	3%	3%
Evaluate progress and quality of personal learning	29%	61%	32%	47%	36%	11%	12%	0%	12%
Establish personal goals in pursuit of individual interests, academic requirements, and career paths	35%	64%	29%	47%	33%	14%	6%	3%	3%
Composite Score	37%	64%	27%	48%	32%	16%	5%	2%	3%

Task One: Participate in decisions about group and classroom projects and learning objectives. Students responded with 72% perceiving they are able to do the task easily, 25% can do the task with help, 3% were unable to do the task, and 0% had no idea what this task means. Teachers perceived 47% of students able to do the task easily, 53% can do the task with help, 0% were unable to do the task, and 0% indicated they did not observe the task.

The data comparison for the performance task indicated a 25% difference in teacher and student perceptions in students' ability to do the task easily, a 28% difference in the perception that students can do the task with help, and a 3% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Two: Identify and select topics of personal interest to expand classroom learning projects. Students responded with 61% perceiving they are able to do the task easily, 31% can do the task with help, 5% were unable to do the task, and 3% had no idea what this task means. Teachers perceived 47% of students able to do the task easily, 47% can do the task with help, 0% were unable to do the task, and 6% indicated they did not observe the task.

The data comparison for the performance task indicated a 14% difference in teacher and student perceptions in students' ability to do the task easily, a 16% difference in the perception that students can do the task with help, and a 5% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Three: Recommend criteria for judging success of learning projects. Students responded with 55% perceiving they are able to do the task easily, 42% can do the task with help, 0% were unable to do the task, and 3% had no idea what this task means. Teachers perceived 23% of students able to do the task easily, 53% can do the task with help, 12% were unable to do the task, and 12% indicated they did not observe the task.

The data comparison for the performance task indicated a 32% difference in teacher and student perceptions in students' ability to do the task easily, an 11% difference in the perception that students can do the task with help, and a 12% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Four: Establish goals and develop a plan for completing projects on time and within the scope of the assignment. Students responded with 72% perceiving they are able to do the task easily, 25% can do the task with help, 3% were unable to do the task, and 0% had no idea what this task means. Teachers perceived 41% of students able to do the task easily, 41% can do the task with help, 0% were unable to do the task, and 18% indicated they did not observe the task.

The data comparison for the performance task indicated a 31% difference in teacher and student perceptions in students' ability to do the task easily, a 16% difference in the perception that students can do the task with help, and a 3% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Five: Evaluate progress and quality of personal learning. Students responded with 61% perceiving they are able to do the task easily, 36% can do the task with help, 0% were unable to do the task, and 3% had no idea what this task means. Teachers perceived 29% of students able to do the task easily, 47% can do the task with help, 12% were unable to do the task, and 12% indicated they did not observe the task.

The data comparison for the performance task indicated a 32% difference in teacher and student perceptions in students' ability to do the task easily, an 11% difference in the perception that students can do the task with help, and a 0% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Six: Establish personal goal in pursuit of individual interests, academic requirements, and career paths. Students responded with 64% perceiving they are able to

do the task easily, 33% can do the task with help, 3% were unable to do the task, and 0% had no idea what this task means. Teachers perceived 35% of students able to do the task easily, 47% can do the task with help, 6% were unable to do the task, and 12% indicated they did not observe the task.

The data comparison for the performance task indicated a 29% difference in teacher and student perceptions in students' ability to do the task easily, a 14% difference in the perception that students can do the task with help, and a 3% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

In reviewing the category of being able to do the task easily as required by the district and the DPI, 37% of the teachers and 64% of the students reported that they could do Performance Standard C.8.4 tasks easily. Thus, a discrepancy between the two was 27% which illustrated a need for work on this standard.

Standard D The Learning Community. The following analysis pertains to Standard D The Learning Community. The content standard is *students in Wisconsin will demonstrate the ability to work collaboratively in teams or groups, use information and technology in a responsible manner, respect intellectual property rights, and recognize the importance of intellectual freedom and access to information in a democratic society.* Each performance standard for Standard D was analyzed separately and the results presented in the table included with each analysis.

Performance Standard D The Learning Community D.8.1 By the end of Grade 8 students will participate productively in workgroups or other collaborative learning environments. The performance indicators for Standard D.8.1 are shown in Table 21.

Teacher and student responses were compared to determine a difference in perception of student ability.

Table 21—Data Comparison for Performance Standard D The Learning Community D.8.1

WITLS Performance Indicators	Do task easily			Do task with help			Unable to do task		
	Teachers	Students	% Difference	Teachers	Students	% Difference	Teachers	Students	% Difference
Collaborate with others to identify information needs and seek solutions	53%	58%	5%	41%	33%	8%	0%	3%	3%
Demonstrate acceptance to new ideas and strategies from workgroup members	35%	61%	26%	59%	31%	28%	0%	3%	3%
Determine workgroup goals and equitable distribution of individual or subgroup responsibilities and tasks	30%	53%	23%	41%	39%	2%	6%	3%	3%
Plan for the efficient use and allocation of time	17%	56%	39%	65%	33%	32%	12%	3%	9%
Complete the workgroup projects on time	35%	64%	29%	59%	33%	26%	0%	3%	3%
Evaluate completed projects to determine how the workgroup could have functioned more efficiently and productively	23%	67%	44%	53%	22%	31%	6%	8%	2%
Composite Score	32%	60%	28%	53%	32%	21%	4%	4%	0%

Task One: Collaborate with others to identify information needs and seek solutions. Students responded with 58% perceiving they are able to do the task easily, 33% can do the task with help, 3% were unable to do the task, and 6% had no idea what this task means. Teachers perceived 53% of students able to do the task easily, 41% can do the task with help, 0% were unable to do the task, and 6% indicated they did not observe the task.

The data comparison for the performance task indicated a 5% difference in teacher and student perceptions in students' ability to do the task easily, a 8% difference in the perception that students can do the task with help, and an 3% difference in perceiving that students are unable to do the task. The performance task should not be reviewed for curricular changes to strengthen student understanding and ability level.

Task Two: Demonstrate acceptance to new ideas and strategies from workgroup members. Students responded with 61% perceiving they are able to do the task easily,

31% can do the task with help, 3% were unable to do the task, and 5% had no idea what this task means. Teachers perceived 35% of students able to do the task easily, 59% can do the task with help, 0% were unable to do the task, and 6% indicated they did not observe the task.

The data comparison for the performance task indicated a 26% difference in teacher and student perceptions in students' ability to do the task easily, a 28% difference in the perception that students can do the task with help, and a 3% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Three: Determine workgroup goals and equitable distribution of individual or subgroup responsibilities and tasks. Students responded with 53% perceiving they are able to do the task easily, 39% can do the task with help, 3% were unable to do the task, and 5% had no idea what this task means. Teachers perceived 30% of students able to do the task easily, 41% can do the task with help, 6% were unable to do the task, and 23% indicated they did not observe the task.

The data comparison for the performance task indicated a 23% difference in teacher and student perceptions in students' ability to do the task easily, a 2% difference in the perception that students can do the task with help, and a 3% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Four: Plan for the efficient use and allocation of time. Students responded with 56% perceiving they are able to do the task easily, 33% can do the task with help, 3% were unable to do the task, and 8% had no idea what this task means. Teachers

perceived 17% of students able to do the task easily, 65% can do the task with help, 12% were unable to do the task, and 6% indicated they did not observe the task.

The data comparison for the performance task indicated a 39% difference in teacher and student perceptions in students' ability to do the task easily, a 32% difference in the perception that students can do the task with help, and a 9% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Five: Complete the workgroup projects on time. Students responded with 64% perceiving they are able to do the task easily, 33% can do the task with help, 3% were unable to do the task, and 0% had no idea what this task means. Teachers perceived 35% of students able to do the task easily, 59% can do the task with help, 0% were unable to do the task, and 6% indicated they did not observe the task.

The data comparison for the performance task indicated a 29% difference in teacher and student perceptions in students' ability to do the task easily, a 26% difference in the perception that students can do the task with help, and a 3% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Six: Evaluate completed projects to determine how the workgroup could have functioned more efficiently and productively. Students responded with 67% perceiving they are able to do the task easily, 22% can do the task with help, 8% were unable to do the task, and 3% had no idea what this task means. Teachers perceived 23% of students able to do the task easily, 53% can do the task with help, 6% were unable to do the task, and 18% indicated they did not observe the task.

The data comparison for the performance task indicated a 44% difference in teacher and student perceptions in students' ability to do the task easily, a 31% difference in the perception that students can do the task with help, and a 2% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

In reviewing the category of being able to do the task easily as required by the district and the DPI, 32% of the teachers and 60% of the students reported that they could do Performance Standard D.8.1 tasks easily. Thus, a discrepancy between the two was 28% which illustrated a need for work on this standard.

Performance Standard D The Learning Community D.8.2 By the end of Grade 8 students will use information, media, and technology in a responsible manner. The performance indicators for Standard D.8.2 are shown in Table 22. Teacher and student responses were compared to determine a difference in perception of student ability.

Table 22—Data Comparison for Performance Standard D The Learning Community D.8.2

WITLS Performance Indicators	Do task easily			Do task with help			Unable to do task		
	Teachers	Students	% Difference	Teachers	Students	% Difference	Teachers	Students	% Difference
Return all borrowed materials	41%	91%	50%	59%	9%	50%	0%	0%	0%
Describe and explain the school policy on technology and network use, media borrowing, and internet access	23%	53%	30%	65%	32%	33%	0%	15%	15%
Demonstrate responsible use of the internet and other electronic resources consistent with the school's acceptable use policy	53%	77%	24%	35%	23%	12%	0%	0%	0%
Recognize that using media and technology to defame or libel another person or group constitutes unacceptable behavior	41%	71%	30%	41%	17%	24%	6%	6%	0%
Identify and define the consequences of violations to the school's policies on media and technology use	47%	60%	13%	41%	31%	10%	0%	9%	9%
Recognize the need for privacy and protection of personal information	53%	86%	33%	41%	14%	27%	0%	0%	0%
Composite Score	43%	73%	30%	47%	21%	26%	1%	5%	4%

Task One: Return all borrowed materials on time. Students responded with 91% perceiving they are able to do the task easily, 9% can do the task with help, 0% were unable to do the task, and 0% had no idea what this task means. Teachers perceived 41% of students able to do the task easily, 49% can do the task with help, 0% were unable to do the task, and 0% indicated they did not observe the task.

The data comparison for the performance task indicated a 50% difference in teacher and student perceptions in students' ability to do the task easily, a 50% difference in the perception that students can do the task with help, and a 0% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Two: Describe and explain the school policy on technology and network use, media borrowing, and internet access. Students responded with 53% perceiving they are able to do the task easily, 32% can do the task with help, 15% were unable to do the task, and 0% had no idea what this task means. Teachers perceived 23% of students able to do the task easily, 65% can do the task with help, 0% were unable to do the task, and 12% indicated they did not observe the task.

The data comparison for the performance task indicated a 30% difference in teacher and student perceptions in students' ability to do the task easily, a 33% difference in the perception that students can do the task with help, and a 15% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Three: Demonstrate responsible use of the internet and other electronic resources consistent with the school's acceptable use policy. Students responded with

77% perceiving they are able to do the task easily, 23% can do the task with help, 0% were unable to do the task, and 0% had no idea what this task means. Teachers perceived 53% of students able to do the task easily, 35% can do the task with help, 0% were unable to do the task, and 12% indicated they did not observe the task.

The data comparison for the performance task indicated a 24% difference in teacher and student perceptions in students' ability to do the task easily, a 12% difference in the perception that students can do the task with help, and a 0% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Four: Recognize that using media and technology to defame or libel another person or group constitutes unacceptable behavior. Students responded with 71% perceiving they are able to do the task easily, 17% can do the task with help, 6% were unable to do the task, and 6% had no idea what this task means. Teachers perceived 41% of students able to do the task easily, 41% can do the task with help, 6% were unable to do the task, and 12% indicated they did not observe the task.

The data comparison for the performance task indicated a 30% difference in teacher and student perceptions in students' ability to do the task easily, a 24% difference in the perception that students can do the task with help, and a 0% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Five: Identify and define the consequences of violations to the school's policies on media and technology use. Students responded with 60% perceiving they are able to do the task easily, 31% can do the task with help, 9% were unable to do the task,

and 0% had no idea what this task means. Teachers perceived 47% of students able to do the task easily, 41% can do the task with help, 0% were unable to do the task, and 12% indicated they did not observe the task.

The data comparison for the performance task indicated a 13% difference in teacher and student perceptions in students' ability to do the task easily, a 10% difference in the perception that students can do the task with help, and a 9% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Six: Recognize the need for privacy and protection of personal information. Students responded with 86% perceiving they are able to do the task easily, 14% can do the task with help, 0% were unable to do the task, and 0% had no idea what this task means. Teachers perceived 53% of students able to do the task easily, 41% can do the task with help, 0% were unable to do the task, and 6% indicated they did not observe the task.

The data comparison for the performance task indicated a 33% difference in teacher and student perceptions in students' ability to do the task easily, a 27% difference in the perception that students can do the task with help, and a 0% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

In reviewing the category of being able to do the task easily as required by the district and the DPI, 43% of the teachers and 73% of the students reported that they could do Performance Standard D.8.2 tasks easily. Thus, a discrepancy between the two was 30% which illustrated a need for work on this standard.

Performance Standard D The Learning Community D.8.3 By the end of Grade 8 students will respect intellectual property rights. The performance indicators for Standard D.8.3 are shown in Table 23. Teacher and student responses were compared to determine a difference in perception of student ability.

Table 23—Data Comparison for Standard D The Learning Community D.8.3

WITLS Performance Indicators	Do task easily			Do task with help			Unable to do task		
	Teachers	Students	% Difference	Teachers	Students	% Difference	Teachers	Students	% Difference
Define the purpose of copyright and copyright law	23%	83%	60%	53%	17%	36%	12%	0%	12%
Identify what kinds of works of authorship can by copyrighted	18%	64%	46%	41%	36%	5%	35%	0%	35%
Explain the concept of "fair use" as it pertains to the copyright law	6%	67%	61%	59%	25%	34%	24%	5%	19%
Recognize that the "fair use" provision may differ depending on the media format	6%	67%	61%	53%	28%	25%	29%	3%	26%
Relate examples of copyright violations	12%	69%	57%	53%	28%	25%	18%	3%	15%
Cite the source for works which are quoted verbatim and for pictures, graphics, and audio or video segments which are used in a product or presentation	12%	53%	41%	53%	39%	24%	18%	8%	10%
Composite Score	13%	67%	54%	52%	29%	23%	23%	3%	20%

Task One: Define the purpose of copyright and copyright law. Students responded with 83% perceiving they are able to do the task easily, 17% can do the task with help, 0% were unable to do the task, and 0% had no idea what this task means. Teachers perceived 23% of students able to do the task easily, 53% can do the task with help, 12% were unable to do the task, and 12% indicated they did not observe the task.

The data comparison for the performance task indicated a 60% difference in teacher and student perceptions in students' ability to do the task easily, a 36% difference in the perception that students can do the task with help, and a 12% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Two: Identify what kinds of works of authorship can be copyrighted. Students responded with 64% perceiving they are able to do the task easily, 36% can do the task with help, 0% were unable to do the task, and 0% had no idea what this task means. Teachers perceived 18% of students able to do the task easily, 41% can do the task with help, 35% were unable to do the task, and 6% indicated they did not observe the task.

The data comparison for the performance task indicated a 46% difference in teacher and student perceptions in students' ability to do the task easily, a 5% difference in the perception that students can do the task with help, and a 35% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Three: Explain the concept of "fair use" as it pertains to the copyright law. Students responded with 67% perceiving they are able to do the task easily, 25% can do the task with help, 5% were unable to do the task, and 3% had no idea what this task means. Teachers perceived 6% of students able to do the task easily, 59% can do the task with help, 24% were unable to do the task, and 11% indicated they did not observe the task.

The data comparison for the performance task indicated a 61% difference in teacher and student perceptions in students' ability to do the task easily, a 34% difference in the perception that students can do the task with help, and a 19% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Four: Recognize that the "fair use" provision may differ depending on the media format. Students responded with 67% perceiving they are able to do the task easily, 28% can do the task with help, 3% were unable to do the task, and 2% had no idea what this task means. Teachers perceived 6% of students able to do the task easily, 53% can do the task with help, 29% were unable to do the task, and 12% indicated they did not observe the task.

The data comparison for the performance task indicated a 61% difference in teacher and student perceptions in students' ability to do the task easily, a 25% difference in the perception that students can do the task with help, and a 26% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Five: Relate examples of copyright violations. Students responded with 69% perceiving they are able to do the task easily, 28% can do the task with help, 3% were unable to do the task, and 0% had no idea what this task means. Teachers perceived 12% of students able to do the task easily, 53% can do the task with help, 18% were unable to do the task, and 17% indicated they did not observe the task.

The data comparison for the performance task indicated a 57% difference in teacher and student perceptions in students' ability to do the task easily, a 25% difference in the perception that students can do the task with help, and a 15% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Six: Cite the source for works which are quoted verbatim and for pictures, graphics, and audio or video segments which are used in a product or presentation.

Students responded with 53% perceiving they are able to do the task easily, 39% can do the task with help, 8% were unable to do the task, and 0% had no idea what this task means. Teachers perceived 12% of students able to do the task easily, 53% can do the task with help, 18% were unable to do the task, and 17% indicated they did not observe the task.

The data comparison for the performance task indicated a 41% difference in teacher and student perceptions in students' ability to do the task easily, a 24% difference in the perception that students can do the task with help, and a 10% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

In reviewing the category of being able to do the task easily as required by the district and the DPI, 13% of the teachers and 67% of the students reported that they could do Performance Standard D.8.3 tasks easily. Thus, a discrepancy between the two was 54% which illustrated a need for work on this standard.

Performance Standard D The Learning Community D.8.4 By the end of Grade 8 students will recognize the importance of intellectual freedom and access to information in a democratic society. The performance indicators for Standard D.8.4 are shown in Table 24. Teacher and student responses were compared to determine a difference in perception of student ability.

Table 24—Data Comparison for Performance Standard D The Learning Community D.8.4

WITLS Performance Indicators	Do task easily			Do task with help			Unable to do task		
	Teachers	Students	% Difference	Teachers	Students	% Difference	Teachers	Students	% Difference
Explain the concept of intellectual freedom	6%	58%	52%	41%	23%	18%	6%	8%	2%
Identify examples and explain the implications of censorship in the United States and in other countries	6%	67%	61%	35%	33%	2%	12%	0%	12%
Explain the importance of the principle of equitable access to information	0%	47%	47%	47%	41%	6%	6%	6%	0%
Compare and contrast freedom of the press in different situations and geographic areas	0%	64%	64%	41%	25%	16%	6%	8%	2%
Recognize that the free-flow of information contributes to an informed citizenry resulting in sound decisions for the common good	6%	56%	50%	29%	28%	1%	6%	8%	2%
Composite Score	4%	58%	54%	39%	30%	9%	7%	6%	1%

Task One: Explain the concept of intellectual freedom. Students responded with 58% perceiving they are able to do the task easily, 23% can do the task with help, 8% were unable to do the task, and 11% had no idea what this task means. Teachers perceived 6% of students able to do the task easily, 41% can do the task with help, 6% were unable to do the task, and 47% indicated they did not observe the task.

The data comparison for the performance task indicated a 52% difference in teacher and student perceptions in students' ability to do the task easily, an 18% difference in the perception that students can do the task with help, and a 2% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Two: Identify examples and explain the implications of censorship in the United States and in other countries. Students responded with 67% perceiving they are able to do the task easily, 33% can do the task with help, 0% were unable to do the task, and 0% had no idea what this task means. Teachers perceived 6% of students able to do

the task easily, 35% can do the task with help, 12% were unable to do the task, and 47% indicated they did not observe the task.

The data comparison for the performance task indicated a 61% difference in teacher and student perceptions in students' ability to do the task easily, a 2% difference in the perception that students can do the task with help, and a 12% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Three: Explain the importance of the principle of equitable access to information. Students responded with 47% perceiving they are able to do the task easily, 41% can do the task with help, 6% were unable to do the task, and 6% had no idea what this task means. Teachers perceived 0% of students able to do the task easily, 47% can do the task with help, 6% were unable to do the task, and 47% indicated they did not observe the task.

The data comparison for the performance task indicated a 47% difference in teacher and student perceptions in students' ability to do the task easily, a 6% difference in the perception that students can do the task with help, and an 0% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Four: Compare and contrast freedom of the press in different situations and geographic areas. Students responded with 64% perceiving they are able to do the task easily, 25% can do the task with help, 8% were unable to do the task, and 3% had no idea what this task means. Teachers perceived 0% of students able to do the task easily, 41%

can do the task with help, 6% were unable to do the task, and 53% indicated they did not observe the task.

The data comparison for the performance task indicated a 64% difference in teacher and student perceptions in students' ability to do the task easily, a 16% difference in the perception that students can do the task with help, and a 2% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

Task Five: Recognize that the free-flow of information contributes to an informed citizenry resulting in sound decisions for the common good. Students responded with 56% perceiving they are able to do the task easily, 28% can do the task with help, 8% were unable to do the task, and 8% had no idea what this task means. Teachers perceived 6% of students able to do the task easily, 29% can do the task with help, 6% were unable to do the task, and 59% indicated they did not observe the task.

The data comparison for the performance task indicated a 50% difference in teacher and student perceptions in students' ability to do the task easily, a 1% difference in the perception that students can do the task with help, and a 2% difference in perceiving that students are unable to do the task. The performance task should be reviewed for curricular changes to strengthen student understanding and ability level.

In reviewing the category of being able to do the task easily as required by the district and the DPI, 4% of the teachers and 58% of the students reported that they could do Performance Standard D.8.4 tasks easily. Thus, a discrepancy between the two was 54% which illustrated a need for work on this standard.

Additional Question One on Teacher Survey: Do you indicate in your gradebook in some way which student activities meet Wisconsin Information and Technology Literacy Standards (WITLS)? Of the teacher responses, 18% indicated most often, 12% indicated sometimes, 35% indicated seldom, and 41% indicated that they never indicate which activities meet WITLS.

Additional Question Two on Teacher Survey: Do you label WITLS in your lesson plans? Teacher responses indicated that 12% do most often, 18% do sometimes, 35% seldom label WITLS, and 35% never label WITLS in their lesson plans.

Additional Question Three on Teacher Survey: I am aware of the ten Wisconsin Teaching Standards. Teachers responded with 24% strongly agreeing, 47% agree, 29% neither agree nor disagree.

Additional Question Four on Teacher Survey: I am aware of the National Educational Technology Standards for Teachers. Twelve percent of teachers strongly agree, 47% of teachers agree, 35% of teachers neither agree nor disagree, and 6% of teachers disagree.

Additional Question Five on Teacher Survey: I am aware of the National Educational Technology Standards for Students. Twelve percent of teacher respondents strongly agree, 35% of teachers agree, 47% of teachers neither agree nor disagree, and 6% of teachers disagree.

Additional Question Six on Teacher Survey: I use a standard tool for problem solving activities in the classroom. Six percent of teachers strongly agree, 29% of teachers agree, 47% of teachers neither agree nor disagree, and 18% of teachers disagree.

Overall, the survey data showed that teacher perceptions of student ability in performing information and technology tasks by the end of Grade 8 most often varied significantly from student perceptions of their skill in being able to do the performance task easily or to do the task with help. Perceptions in student inability to do the task most often did not vary significantly. In 111 of 124 (90%) information and technology tasks included in the survey, teacher and student perceptions differed in student ability to do the task easily. In 85% of the performance tasks, students perceived their ability to be greater than what teachers perceived. Teachers and students differed in perception on 64% of the performance tasks for student ability to do the performance task with help. Teacher and student perceptions differed 15% in students being unable to do the task.

The overall results indicated that students have a higher perception of their ability to do information and technology task easily than teachers perceive. Teachers indicated more often that they perceived students need help to be able to do the task. Both teacher and student survey results indicated that there were few tasks in which students were perceived unable to do.

Chapter V: Discussion

As the School District of Gilman began year one of its three-year action plan developed through the goals and objectives given in the 2009-2012 information and technology plan, stakeholders wanted to determine the difference in teacher and student perceptions of student abilities in using information and technology literacy skills by the end of Grade 8. The district provided student access to networked equipment, current software, and the internet. The technology framework was in place for students to apply 21st Century skills in their learning activities and projects, and the district believed that teachers should expect that students have the skill level needed to complete technology-rich projects.

However, when teachers responded to an information technology survey in the fall of 2008, the district was reported to be at a beginning stage of implementing information and technology skills in classroom learning even though students had successfully completed the information and technology courses provided. This study was to help determine if teacher and student perceptions differed in student ability to complete technology-related tasks. A difference in teacher and student perceptions of ability may have deterred the use of information and technology skills in the classroom. Table 25 lists the composite scores for all WITLS.

Table 25—Composite Scores for Standards A, B, C, and D

Standard	Do task easily			Do task with help			Unable to do task		
	Teachers	Students	% Difference	Teachers	Students	% Difference	Teachers	Students	% Difference
Standard A Media and Technology	39%	64%	25%	33%	29%	4%	3%	6%	3%
Standard B Information and Inquiry	14%	57%	43%	46%	32%	14%	7%	5%	2%
Standard C Independent Learning	33%	61%	28%	47%	31%	16%	3%	3%	0%
Standard D The Learning Community	23%	65%	42%	48%	28%	20%	9%	9%	0%

It is required by the district and the DPI that all students do WITLS tasks easily. The composite scores in teacher and student perception of student ability in the category to *do task easily* are shown to exceed the acceptable difference of 10% in all standards and performance indicators. The results indicated that teachers who participated in this survey perceived that students have not met district and DPI requirements of proficiency. The composite scores for teacher and student perceptions in being able to *do the task with help* indicated lower differences in perception; however, teachers chose this category more often than *do task easily* indicating that WITLS standards and performance indicators need improvement. Also, survey results indicated that students perceived they needed help to complete WITLS tasks which does not meet district and DPI requirements of proficiency. The composite scores indicated that teachers and students viewed student ability higher than *unable to do the task* in that this category was chosen less than 10% of the time for all standards, and the composite scores indicated perception differences in this category for all standards and performance indicators as less than 10%.

Wisconsin DPI required that 100% of the state's students by the end of Grade 8 demonstrate proficiency in using information and technology skills. The district does offer information and technology classes to help meet DPI requirements in which all its students demonstrated being able to do technology tasks easily. This level of student proficiency is reinforced by applying WITLS skills throughout students' educational experiences. Teachers who participated in this study seemed to not be integrating information and technology tasks into their activities. A difference in teacher and student perceptions in being able to do information and technology tasks easily may cause teachers to not include technology-related tasks because they perceive students not to be

able to do the tasks easily. Or, teachers are not familiar with the tasks or skills required. It is likely that some students may have not learned the skill well enough to transfer it to another class.

It is possible that some students would need to be reminded of how to do or implement information and technology tasks and would be able to do the task with help. The difference in this perception may help determine if teachers are concerned about having to reteach technology rather than just having students apply information and technology skills. Teachers may not have the skill to reteach or to require assignments that use technological skills.

The district chose to use technology-rich instructional units to provide evidence of meeting the standards and teachers were directed to document in their lesson plans the instructional units that implement information and technology tasks, yet very few teachers have WITLS noted in their plans. It is possible that outside of the structured information and technology program provided to students that not many learning experiences included projects implementing 21st Century skills, and therefore, no documentation existed either.

Most of the performance standards fell within the range for review of possible curricular modifications and staff development due to differences in teacher and student perceptions with only 6% of the performance indicators identified as having an acceptable difference in perceptions.

One of the WITL performance standards which resulted in higher percentage differences in perception was *Performance Standard A Media and Technology A.8.3*. The

composite score shown in Table 5 resulted in a 41% difference in teacher and student perceptions in being able to identify and use common media formats.

Performance Standard A Media and Technology A.8.6 was another performance standard in which the composite score shown in Table 8 indicated teacher and student perceptions to be at a high 41% difference in student ability to evaluate the use of media and technology to create and present information.

Performance Standard B Information and Inquiry B.8.2 composite scores are shown in Table 10 in which a 42% difference resulted in teacher and student perceptions to do the tasks easily. A difference of 22% was also determined in teacher and students perceptions of student ability to do the task with help when asked to develop information seeking strategies.

Performance Standard B Information and Inquiry B.8.4 was another standard which reportedly had a high difference in teacher and student perception of student ability. The composite score for the standard indicated that a 47% difference in perception existed in the ability to evaluate and select information from a variety of print, nonprint, and electronic formats.

The composite scores for *Performance Standard B Information and Inquiry B.8.5* shown in Table 13 indicate a high 39% difference in teacher and student perceptions of being able to easily record and organize information.

Performance Standard B Information and Inquiry B.8.6 resulted in the highest difference in perception between teachers and students as shown in Table 14. A composite score of 59% difference in perception of being able to do the task easily was

determined for this standard in which students interpret and use information to solve the problem or answer the question.

Performance Standard C Independent Learning C.8.3 composite scores indicated a 39% difference in student ability to do the tasks related to developing competence and selectivity in reading, listening, and viewing.

Performance Standard D proved to have composite scores which indicated higher differences in teacher and student perceptions of student ability to do *all* performance standards easily. However, two performance standards for Standard D ranked highest in their composite score differences in student ability to do the task easily.

Performance Standard D The Learning Community D.8.3 results shown in Table 23 indicated that teachers and students perceive a 54% difference in student ability to respect intellectual property rights.

Performance Standard D The Learning Community D.8.4 shown in Table 24 indicated a 54% difference in perceived student ability to recognize the importance of intellectual freedom and access to information in a democratic society.

Teacher responses to the category *did not observe* (Appendix F) were greatest in the following standards.

Performance Standard A Media and Technology A.8.5 By the end of Grade 8 students will use media and technology to create and present information

Performance Standard A Media and Technology A.8.6 By the end of Grade 8 students will evaluate the use of media and technology in a production or presentation

Standard B Information and Inquiry B.8.3 By the end of Grade 8 students will locate and access information sources

Performance Standard B Information and Inquiry B.8.4 By the end of Grade 8 students will evaluate and select information from a variety of print, nonprint, and electronic formats

Performance Standard B Information and Inquiry B.8.8 By the end of Grade 8 students will evaluate the information product and process

Performance Standard D The Learning Community D.8.4 By the end of Grade 8 students will recognize the importance of intellectual freedom and access to information in a democratic society

Survey results indicated that the Performance Standard D.8.4 has a high percentage of teachers perceiving that students are unable to perform tasks related to the use of information. Six tasks related to copyright, authorship, "fair use", violations, and citing sources were selected as ones that should be reviewed for difference in perceptions of student ability. According to the district principal, Performance Standard D of WITLS was not specifically written as an instructional unit in any one curriculum at this time.

Student responses to the category *no idea what task means* (Appendix F) were greatest in the following specific performance indicators:

Using basic content-specific tools to provide evidence/support in a class project

Identifying and selecting keywords and phrases for each source, recognizing that different sources use different terminology for similar concepts

Using Boolean operators with human or programmed guidance to narrow or broaden searches

Recognizing that reviews, evaluations, and guidance from teacher, library media specialists, and others assist in the selection of appropriate literature and creative expression of information

Relating literature and creative expressions of information to other literature or creative expressions of information.

Additional questions given to teachers about documenting WITLS lessons and activities and being aware of state and national standards resulted in responses that clearly identified a need for the district and may indicate a lack of implementation of WITLS. Of the respondents, 76% indicated that they seldom or never indicate which student activities meet WITLS and 70% of the respondents seldom or never label WITLS activities in lesson plans. Most teachers indicated that they are aware of the ten Wisconsin Teaching Standards, the National Educational Technology Standards for Teachers, and The National Educational Technology Standards for Students. The majority of teacher respondents chose to neither agree nor disagree or disagreed when asked if they use a standard tool for problem-solving activities.

Teachers are responsible and evaluated for adhering to WITLS and district initiatives to meet state requirements. To have information and technology tasks not observed could be interpreted that these 21st Century skills are not implemented into curricular activities. For example, survey items with a high percentage of teachers not observing the skill included identifying organizational patterns in reference books, defining learning software, using a common graphic program to import, and create or modify an image or picture. Eighty-three (83%) percent of students think they can easily work with graphics yet 24% of teachers did not observe a project or assignment where

students performed the task. Other areas where students perceived being able to do performance tasks easily yet teachers indicated they did not observe the activity included constructing a simple database, constructing a simple spreadsheet, using different types of charts and graphs, and incorporating database and spreadsheet information into a word-processed document. Forty-one (41%) percent of teachers said they had not observed students using the library media center to locate materials, use the classification system, or search bibliographic records, abstracts, or full text databases.

Standard B Information and Inquiry B.8.8 appeared to be one standard in most need of improvement. Teachers responded that 47-50% did not observe students identifying criteria to be used in judging product and process of a project, determining how well research conclusions meet the original question or criteria, assessing the process, and summarizing ways in which the process and product can be improved.

Possibly content specific, but given as information and technology tasks identified under Standard D The Learning Community D.8.4. that all teachers are to implement, are tasks in which almost 50% of the teachers of students in Grade 8 did not observe students discussing intellectual freedom, censorship, access to information, freedom of the press, or the importance of an informed citizenry resulting in sound decisions for the common good.

Limitations

A limitation of the study is inherent in the use of student perceptions at Grade 8. It is possible that students did not understand the standard identified and chose to give any response in an effort to complete the survey. Another limitation is the knowledge and capacity of the individual teacher to implement information and technology skills into

curriculum. It is also possible that some curricular areas lend themselves to more use of specific technologies than other areas. Since this is the first study of perceived student proficiency for each information and technology skill, no prior information exists for comparison.

Conclusions

The School District of Gilman required the implementation of WITLS to assist in educating students for the 21st Century by its entire teaching staff by the end of the 2008-2009 school year. To meet state requirements and district technology goals, students demonstrated the ability to complete WITLS performance tasks easily through specific instruction provided through the district's information and technology program. However, a difference in student and teacher perceptions of student ability by the end of Grade 8 was evident for most of WITLS performance indicators included in the study. The composite scores shown in Table 25 for Standard A Media and Technology indicated a 25% difference in teacher and student perceived student ability to complete the performance tasks easily. Standard B Information and Inquiry resulted in a 43% difference in student ability to complete the task easily. Standard C Independent Learning also indicated a perceived difference of 28% in student ability to complete performance tasks easily. Finally, Standard D The Learning Community represented the standard with the most indicators in which teacher and student perceptions differed. The composite score for this standard indicated a 42% difference in perceptions of student ability to do tasks easily and a 20% difference in students being able to do the task with help.

Other findings from the study indicated that perceived differences in student inability to perform WITLS tasks were less than 10% overall. Additional findings of the

study showed that 47% percent of information and technology tasks were not observed by at least 25% of the teaching staff.

The selected method of documenting WITLS success was appropriate for the district based upon Wisconsin technology literacy assessment requirements yet survey results indicated that most teachers of Grade 8 students do not document technology-rich instructional units.

Recommendations

Findings from the study indicated that the difference in student and teacher perceptions of student ability may be a factor in teacher implementation of WITLS. The district implemented a formal information and technology program for the past eight years yet teacher perceptions of student ability differ in comparison to students' perceived ability for most WITLS tasks. The School District of Gilman needs to formally address WITLS with its teaching staff on the importance of implementing WITLS to reinforce student ability to perform 21st Century skills easily. Training needs to continue on designing technology-rich instructional units and activities that implement WITLS tasks in all curricular areas.

The School District of Gilman may look to develop a different way to document technology- rich instructional units other than noting WTLS in the gradebook or in lesson plans. The majority of teachers indicated that documenting WTLS activities and graded assignments was done *seldom* or *never* and doing so was one of the core indicators of student achievement the district chose to use for DPI reporting.

Many standards were identified through analysis of the study as those that should be reviewed to strengthen student understanding and ability level. Those skill areas

identified may need to be included in district curriculum as instructional units, and the district should look to see which department could easily integrate the skills into course curriculum. The entire teaching staff needs to continue making curricular modifications to include technology-rich instructional units that will provide mastery of the information and technology skills needed for the 21st Century.

References

Business-Higher Education Forum. (2005). *A commitment to America's future: Responding to the crisis in mathematics & science education.* Washington, DC: Author. Retrieved November 12, 2009, from http://www.bhef.com/www/publications/documents/commitment_future_05.pdf

Dede, C. (2005). Planning for neomillennial learning styles. *EDUCAUSE Quarterly, 28*(1), 7-13. Retrieved October 8, 2009, from http://www.educause.edu/EDUCAUSE+Quarterly/EDUCAUSEQuarterlyMagazineVolum/PlanningforNeomillennialLearni/157325

Federal Communications Commission, Telecommunications Act of 1996, Pub. LA. No. 104-104, 110 Stat. 56. (1996). Retrieved October 29, 2009, from http://www.fcc.gov/Reports/tcom1996.pdf

LoTi Profiler Guide, 2005 Learning Quest. Retrieved October 8, 2009, from http://lizzie.lqhome.com/wiki/index.php/LoTi_Profiler_Guide#Understanding_Each_LoTi_Level

Project Tomorrow. *Speak up 2008 for students, teachers, parents and administrators.* (2009) [Electronic Version] 1-13.

Stanford University. *Stanford Copyright & Fair Use—The TEACH Act.* Retrieved November 9, 2009, from http://fairuse.stanford.edu/primary_materials/legislation/teach.html

State Educational Technology Directors Association (SETDA). 2007 Technology Literacy Assessment and Educational Standards Report [Electronic version]. 1-11.

Task Force on the Future of American Innovation. (2005). *The knowledge economy: Is the United States losing its competitive edge?* Retrieved October 10, 2009, from http://futureofinnovation.org/PDF/Benchmarks.pdf

Technology and Copyright Harmonization (TEACH) Act of 2001. 107th Congress, 1st Session, S.487. (2001). Retrieved October 29, 2009, from http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=107_cong_bills &docid= f:s487es.txt.pdf

The ISTE National Educational Technology Standards (NETS•S) and Performance Indicators for Students. (2007). Retrieved October 8, 2009, from http://www.iste.org/Content/NavigationMenue/NETS/forStudents/NETS_for_ Students.htm

Dede, C., Korte, S., Nelson, R., Valdez, G., Ward, D. (2005). *Transforming learning for the 21st century: An economic imperative.* [Electronic version]. 1-66.

Ezziane, Z. (2007) Information technology literacy: Implications on teaching and learning. *Journal of Educational Technology & Society, 10*(3), 175-191.

U.S. Department of Education, No Child Left Behind Act of 2001, Enhancing Education Through Technology. Retrieved November 9, 2009, from http://www.ed. gov/policy/elsec/leg/esea02/pg34.html

United States Department of Education, Office of Elementary and Secondary Education. (2009). Retrieved November 12, 2009, from http://www.ed.gov/admins/lead/ account/ cornerstones/wi.pdf

Wisconsin Department of Public Instruction, Chapter PI 26 Education for Employment Plans and Program. (2004). Retrieved October 8, 2009, from http://www.legis.state.wi.us/rsb/code/pi/pi026.pdf

Wisconsin Department of Public Instruction. Information (Library Media) & Technology Planning Rationale & Guidance. (2003). Retrieved August 12, 2009 from http://dpi.wi.gov/imt/pdf/planguidance.pdf

Appendix A: Wisconsin's Model Academic Standards for Information and Technology Literacy

The information and technology literacy standards are grouped into four categories or content standards specifying what a student should know and be able to do. The first two content standards focus on technology use and information processing skills. The latter two build upon these by adding performance standards that deal with attitudes, appreciation, independent learning, teamwork skills, and personal and social responsibility. The four content standards are:

A. Media and Technology
B. Information and Inquiry
C. Independent Learning
D. The Learning Community

Each content standard is followed by performance standards that tell how students will show that they are meeting the content standard. Each performance standard includes a number of indicators (the bullet points) that detail how students will demonstrate proficiency in a particular performance area. When students demonstrate proficiency in these performance standards and indicators, they will have mastered a literacy that is basic to success in the world of the 21st century.

A. MEDIA AND TECHNOLOGY

Content Standard -- Students in Wisconsin will select and use media and technology to access, organize, create, and communicate information for solving problems and constructing new knowledge, products, and systems.

Performance Standard: A.8.1 -- By the end of grade eight students will use common media and technology terminology and equipment

Performance Indicator Examples:

- identify and define computer and networking terms (e.g., modem, file server, client station, LAN, Internet/Intranet, data storage device)
- demonstrate the correct operation of a computer system on a network
- demonstrate touch keyboarding skills at acceptable speed and accuracy levels (suggested range 20-25 wpm)
- organize and backup files on a computer disk, drive, server, or other storage device
- recognize and solve routine computer hardware and software problems
- use basic content-specific tools (e.g., environmental probes, measurement sensors) to provide evidence/support in a class project
- scan, crop, and save a graphic using a scanner, digital camera, or other digitizing equipment
- use simple graphing calculator functions to solve a problem
- capture, edit, and combine video segments using a multimedia computer with editing software or a video editing system

Performance Standard: A.8.2 -- By the end of grade eight students will identify and use common media formats

Performance Indicator Examples:

- describe the operating and file management software of a computer (e.g., desktop, file, window, folder, directory, pull-down menu, dialog box)
- identify the various organizational patterns used in different kinds of reference books
- define the basic types of learning software (e.g., drill and practice, tutorial, simulation)
- use electronic encyclopedias, almanacs, indexes, and catalogs to retrieve and select information
- describe the various applications of productivity software programs (e.g., word processing, database, spreadsheet, presentation, communication, drawing, desktop publishing)
- identify common integrated software packages or applications suites
- use a graphics program to create or modify detail to an image or picture

Performance Standard: A.8.3 -- By the end of grade eight students will use a computer and productivity software to organize and create information

Performance Indicator Examples:

- explain the use of basic word processing functions (e.g., menu, tool bars, dialog boxes, radio buttons, spell checker, thesaurus, page layout, headers and footers, word count, tabs)
- use the spell checker and thesaurus functions of a word processing program
- move textual and graphics data from one document to another
- use graphics software to import pictures, images, and charts into documents
- use a graphical organizer program to construct outlines or webs that organize ideas and information
- compose a class report using advanced text formatting and layout styles (e.g., single and double spacing, different size and style of fonts, indents, headers and footers, pagination, table of contents, bibliography)
- classify collected data and construct a simple database by defining fields, entering and sorting data, and producing a report
- construct a simple spreadsheet, enter data, and interpret the information
- plot and use different types of charts and graphs (e.g., line, bar, stacked, scatter diagram, area, pie charts, pictogram) from a spreadsheet program
- incorporate database and spreadsheet information (e.g., charts, graphs, lists) in word-processed documents

Performance Standard: A.8.4 -- By the end of grade eight students will use a computer and communications software to access and transmit information

Performance Indicator Examples:

- define basic on-line searching and Internet terminology (e.g., website, HTML, home page, hypertext link, bookmark, URL address)
- send an e-mail message with an attachment to several persons simultaneously

- access information using a modem or network connection to the Internet or other on-line information services
- view, print, save, and open a document from the Internet or other on-line sources
- use basic search engines and directories to locate resources on a specific topic
- demonstrate efficient Internet navigation
- organize World Wide Web bookmarks by subject or topic

Performance Standard: A.8.5 -- By the end of grade eight students will use media and technology to create and present information

Performance Indicator Examples:

- use draw, paint, or graphics software to create visuals that will enhance a class project or report
- design and produce a multimedia program
- plan and deliver a presentation using media and technology appropriate to topic, audience, purpose, or content

Performance Standard: A.8.6 -- By the end of grade eight students will evaluate the use of media and technology in a production or presentation

Performance Indicator Examples:

- determine the purpose of a specific production or presentation
- describe the effectiveness of the media and technology used in a production or presentation
- identify criteria for judging the technical quality of a production or presentation
- judge how well the production or presentation meets identified criteria
- recommend ways to improve future productions or presentations

B. INFORMATION AND INQUIRY

Content Standard -- Students in Wisconsin will access, evaluate, and apply information efficiently and effectively from a variety of sources in print, nonprint, and electronic formats to meet personal and academic needs.

Performance Standard: B.8.1 -- By the end of grade eight students will define the need for information

Performance Indicator Examples:

- identify the information problem or question to be resolved
- relate what is already known to the information need
- formulate general and specific research questions using a variety of questioning skills
- revise and narrow the information questions to focus on the information need

Performance Standard: B.8.2 -- By the end of grade eight students will develop information seeking strategies

Performance Indicator Examples:

- identify relevant sources of information including print, nonprint, electronic, human, and community resources
- evaluate possible sources of information based on criteria of timeliness, genre, point of view, bias, and authority
- select multiple sources that reflect differing or supporting points of view
- identify and select keywords and phrases for each source, recognizing that different sources use different terminology for similar concepts
- organize ideas, concepts, and phrases using webbing, outlines, trees, or other visual or graphic tools
- focus search strategies on matching information needs with available resources

Performance Standard: B.8.3 -- By the end of grade eight students will locate and access information sources

Performance Indicator Examples:

- identify the classification system used in the school library media center, public library, and other local libraries
- locate materials using the classification systems of the school library media center and the public library
- use an on-line catalog and other databases of print and electronic resources
- recognize differences in searching bibliographic records, abstracts, or full text databases
- search for information by subject, author, title, and keyword
- use Boolean operators with human or programmed guidance to narrow or broaden searches
- use biographical dictionaries, thesauri, and other common reference tools in both print and electronic formats
- use a search engine to locate appropriate Internet or Intranet resources

Performance Standard: B.8.4 -- By the end of grade eight students will evaluate and select information from a variety of print, nonprint, and electronic formats

Performance Indicator Examples:

- examine selected resources for pertinent information using previewing techniques to scan for major concepts and keywords
- differentiate between primary and secondary sources
- distinguish between fact and opinion; recognize point of view or bias
- determine if information is timely, valid, accurate, comprehensive, and relevant
- analyze and evaluate information presented in charts, graphs, and tables
- locate indicators of authority for all sources of information
- select resources in formats appropriate to content and information need and compatible with their own learning style

Performance Standard: B.8.5 -- By the end of grade eight students will record and organize information

Performance Indicator Examples:

- use notetaking strategies including summarizing and paraphrasing

- record concise notes in a prescribed manner, including bibliographic information
- cite the source of specific quotations or visuals using footnotes, endnotes, or internal citation formats
- organize and compare information using graphic organizers, storyboarding, and other relational techniques
- organize information in a systematic manner appropriate to question, audience, and intended format of presentation
- record sources of information in a standardized bibliographic format

Performance Standard: B.8.6 -- By the end of grade eight students will interpret and use information to solve the problem or answer the question

Performance Indicator Examples:

- compare and integrate new information with prior knowledge
- analyze information for relevance to the question
- analyze findings to determine need for additional information
- gather and synthesize additional information as needed
- draw conclusions to address the problem or question

Performance Standard: B.8.7 -- By the end of grade eight students will communicate the results of research and inquiry in an appropriate format

Performance Indicator Examples:

- determine the audience and purpose for the product or presentation
- identify possible communication or production formats
- select a presentation format appropriate to the topic, audience, purpose, content, and technology available
- develop an original product or presentation which addresses the information problem or question

Performance Standard: B.8.8 -- By the end of grade eight students will evaluate the information product and process

Performance Indicator Examples:

- identify the criteria to be used in judging both the product (or presentation) and the process
- determine how well research conclusions and product meet the original information need or question based on the identified criteria
- assess the process based on identified criteria
- summarize ways in which the process and product can be improved

C. INDEPENDENT LEARNING

Content Standard -- Students in Wisconsin will apply information and technology skills to issues of personal and academic interest by actively and independently seeking information; demonstrating critical and discriminating reading, listening, and viewing habits; and, striving for personal excellence in learning and career pursuits.

Performance Standard: C.8.1 -- By the end of grade eight students will pursue information related to various dimensions of personal well-being and academic success

Performance Indicator Examples:

- identify topics of interest and seek relevant information about them
- identify information appropriate for decision-making and personal interest
- recognize that accurate and complete information is basic to sound decisions in both personal and academic pursuits

Performance Standard: C.8.2 -- By the end of grade eight students will appreciate and derive meaning from literature and other creative expressions of information

Performance Indicator Examples:

- recognize that reviews, evaluations, and guidance from teachers, library media specialists, and others assist in the selection of appropriate literature and creative expressions of information
- identify and use personal criteria for choosing literature and other creative expressions of information
- relate literature and creative expressions of information to personal experiences
- relate literature and creative expressions of information to other literature or creative expressions of information

Performance Standard: C.8.3 -- By the end of grade eight students will develop competence and selectivity in reading, listening, and viewing

Performance Indicator Examples:

- choose materials at appropriate developmental levels
- identify and select materials that reflect diverse perspectives
- identify characteristics of common literary forms
- recognize how words, images, sounds, and illustrations can be constructed to convey specific messages, viewpoints, and values

Performance Standard: C.8.4 -- By the end of grade eight students will demonstrate self-motivation and increasing responsibility for their learning

Performance Indicator Examples:

- participate in decisions about group and classroom projects and learning objectives
- identify and select topics of personal interest to expand classroom learning projects
- recommend criteria for judging success of learning projects
- establish goals and develop a plan for completing projects on time and within the scope of the assignment
- evaluate progress and quality of personal learning
- establish personal goals in pursuit of individual interests, academic requirements, and career paths

D. THE LEARNING COMMUNITY

Content Standard -- Students in Wisconsin will demonstrate the ability to work collaboratively in teams or groups, use information and technology in a responsible manner, respect intellectual property rights, and recognize the importance of intellectual freedom and access to information in a democratic society.

Performance Standard: D.8.1 -- By the end of grade eight students will participate productively in workgroups or other collaborative learning environments

Performance Indicator Examples:

- collaborate with others to identify information needs and seek solutions
- demonstrate acceptance to new ideas and strategies from workgroup members
- determine workgroup goals and equitable distribution of individual or subgroup responsibilities and tasks
- plan for the efficient use and allocation of time
- complete workgroup projects on time
- evaluate completed projects to determine how the workgroup could have functioned more efficiently and productively

Performance Standard: D.8.2 -- By the end of grade eight students will use information, media, and technology in a responsible manner

Performance Indicator Examples:

- return all borrowed materials on time
- describe and explain the school policy on technology and network use, media borrowing, and Internet access
- demonstrate responsible use of the Internet and other electronic resources consistent with the school's acceptable use policy
- recognize that using media and technology to defame or libel another person or group constitutes unacceptable behavior
- identify and define the consequences of violations to the school's policies on media and technology use
- recognize the need for privacy and protection of personal information

Performance Standard: D.8.3 -- By the end of grade eight students will respect intellectual property rights

Performance Indicator Examples:

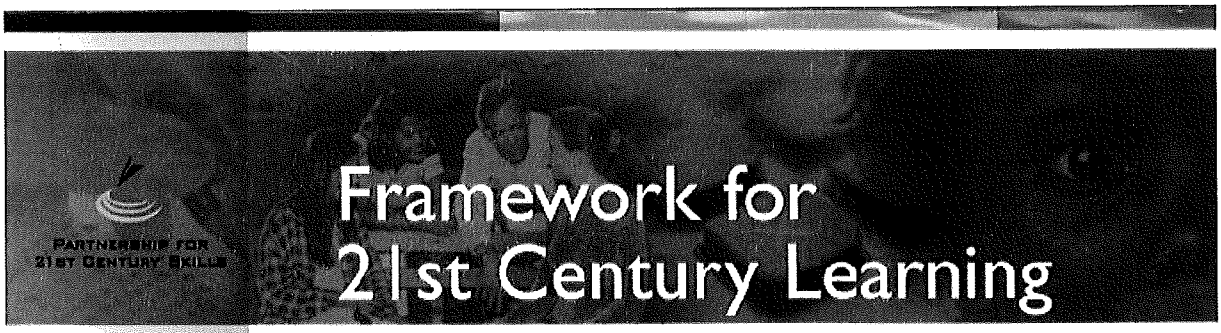
- define the purpose of copyright and copyright law
- identify what kinds of works of authorship can be copyrighted
- explain the concept of "fair use" as it pertains to the copyright law
- recognize that the "fair use" provisions may differ depending on the media format
- relate Examples: of copyright violations
- cite the source for words which are quoted verbatim and for pictures, graphics, and audio or video segments which are used in a product or presentation
- explain and differentiate the purposes of a patent, trademark, and logo

Performance Standard: D.8.4 -- By the end of grade eight students will recognize the importance of intellectual freedom and access to information in a democratic society

Performance Indicator Examples:

- explain the concept of intellectual freedom
- identify Examples: and explain the implications of censorship in the United States and in other countries
- explain the importance of the principle of equitable access to information
- compare and contrast freedom of the press in different situations and geographic areas
- recognize that the free-flow of information contributes to an informed citizenry resulting in sound decisions for the common good

Appendix B: Framework for 21st Century Learning



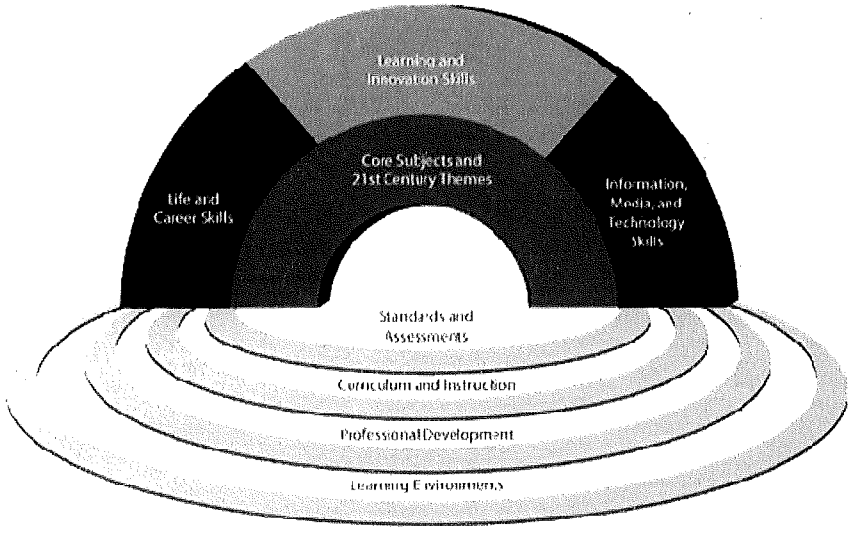
Member Organizations

- Adobe Systems Inc.
- American Association of School Librarians
- Apple
- AT&T
- Blackboard Inc.
- Cable in the Classroom
- Cisco Systems Inc.
- Corporation for Public Broadcasting
- Davis Publications Inc.
- Dell Inc.
- Discovery Education
- EF Education
- Educational Testing Service
- Education Networks of America
- Ford Motor Company Fund
- Intel Foundation
- JA Worldwide
- KnowledgeWorks Foundation
- Leapfrog SchoolHouse
- McGraw-Hill Education
- Microsoft Corporation
- National Education Association
- Oracle Education Foundation
- Pearson Education
- PolyVision
- SAP
- SAS Institute
- Texas Instruments
- THINKronize
- Thomson Gale
- Verizon

Publication date: 07/13/07

The Partnership for 21st Century Skills has developed a vision for 21st century student success in the new global economy.

21st Century Student Outcomes and Support Systems



21ST CENTURY STUDENT OUTCOMES

The elements described in this section as "21st century student outcomes" (represented by the rainbow) are the skills, knowledge and expertise students should master to succeed in work and life in the 21st century.

Core Subjects and 21st Century Themes

Mastery of **core subjects and 21st century themes** is essential for students in the 21st century. Core subjects include English, reading or language arts, world languages, arts, mathematics, economics, science, geography, history, government and civics.

We believe schools must move beyond a focus on basic competency in core subjects to promoting understanding of academic content at much higher levels by weaving **21st century interdisciplinary themes** into core subjects:

- **Global Awareness**
- **Financial, Economic, Business and Entrepreneurial Literacy**
- **Civic Literacy**
- **Health Literacy**

Appendix C: 2009-2012 District Information and Technology Plan

Section 5 – Goals and Objectives

Goals and Objectives Development Process

The three members of the team that attended the summer workshop worked with the needs statements and district mission statement to determine a reasonable set of goals (see Table 3 District Technology Goals). We then presented the goals to the full committee at our August 2008 meeting. The goals were accepted by the whole committee. We divided into four sub committees, each taking a goal to develop objectives for that goal. During September 2008 we met as sub committees to develop the objectives. At the November meeting the goals and objectives were discussed, modified and accepted by the committee. In December 2009 we presented the goals and objectives to the staff, and at the January 2009 school board meeting we submitted the goals and objectives to the board.

District Technology Goals
Integrate 21st Century skills into the curriculum to increase student achievement.
Create a better information exchange between the school, students, staff, and the community.
Continue current programs and implement new initiatives to provide learning opportunities for work, for home or for leisure.
Maintain and upgrade the technology infrastructure to support the district in meeting it's mission and goals.

Table 3District Technology Goals

Description of Goals and Objectives

Instead of creating unrealistic expectations with several unobtainable goals, the committee decided to concentrate on four goals that we felt could be achieved and would benefit students. We looked at the needs we identified and decided to develop one goal for each need the district has. We used the same rational when developing objectives to meet our goals. We limited ourselves to just a few objectives for each goal.

We felt that previous technology plans had begun the process of technology integration, and with this plan we wanted to emphasize that technology alone was not sufficient. The district needs to focus on integrating 21st century skills into the curriculum. Our first goal was to integrate those skills into the curriculum and to document the district's students meeting the eighth grade technology literacy standards.

Appendix D: Student Survey on WITLS

WITLS STUDENT SURVEY "This research has been approved by the UW-Stout IRB as required by the Code of Federal regulations Title 45 Part 46."

Response Category Key:

Can do this task easily	**You can include this task in your daily use of the computer when doing assignments or for your personal use.**
Can do this task with help	**You need someone to remind you how to do the task but are generally able to continue on your own without too much assistance.**
Unable to do this task	**You remember learning something about this task but you need a lot of assistance to continue with the task.**
No idea what this task means	**You cannot remember learning about this task in any of your courses.**

WITLS STUDENT SURVEY "This research has been approved by the UW-Stout IRB as required by the Code of Federal regulations Title 45 Part 46."

Standard A Media and Technology A.8.1
By the end of Grade 8 students will use common media and technology terminology and equipment.

Please choose what you believe to be your level of proficiency in doing each of the following:

	Can do this task easily	Can do this task with help	Unable to do this task	No idea what this task means
Identify and define computer and networking terms (e.g., modem, file server, client station, LAN, Internet/Intranet, data storage device)				
Demonstrate the correct operation of a computer system on a network				
Demonstrate touch keyboarding skills at acceptable speed and accuracy levels (20-25 wpm)				
Organize and backup files on a computer disk, drive, server, or other storage device				
Recognize and solve routine computer hardware and software problems				
Use basic content-specific tools (e.g., environmental probes, measurement sensors) to provide evidence/support in a class project				
Scan, crop, and save a graphic using a scanner, digital camera, or other digitizing equipment				
Use simple graphing calculator functions to solve a problem				
Capture, edit, and combine video segments using a multimedia computer with editing software or a video editing system				

Standard A Media and Technology A.8.2
By the end of Grade 8 students will identify and use common media formats.

Please choose what you believe to be your level of proficiency in doing each of the following:

	Can do this task easily	Can do this task with help	Unable to do the task	No idea what this task means
Define the operating and file management software of a computer (e.g. desktop, file, window, folder, directory, pull-down menu, dialog box				
Identify the various organizational patterns used in different kinds of reference books				
Define the basic types of learning software (e.g., drill and practice, tutorial, simulation)				
Use electronic encyclopedias, almanacs, indexes, and catalogs to retrieve and select information				
Describe the various applications of productivity software programs (e.g., word processing , database, spreadsheet, presentation, communication, drawing, desktop publishing)				

Identify common integrated software packages or application suites (e.g., Microsoft Office)	◎	◎	◎	◎
Use a common graphics program to create or modify detail to an image or picture (e.g., Photoshop, Paint, Gimp)	◎	◎	◎	◎

Standard A Media and Technology A.8.3
By the end of Grade 8 students will use a computer and productivity software to organize and create information.

Please choose what you believe to be your level of proficiency in doing each of the following:

	Can do this task easily	Can do this task with help	Unable to do the task	No idea what this task means
Explain the use of basic word processing functions (e.g., menu, tool bars, dialog boxes, radio buttons, spell checker, thesaurus, page layout, headers and footers, word count, tabs)	◎	◎	◎	◎
Use the spell checker and thesaurus functions of a word processing program	◎	◎	◎	◎
Move textual and graphics data from one document to another	◎	◎	◎	◎
Use graphics software to import pictures, images, and charts into documents (i.e. insert pictures and charts into Word documents)	◎	◎	◎	◎
Use a graphical organizer program to construct outlines or webs that organize ideas and information (e.g., Inspiration, WORD Drawing Objects)	◎	◎	◎	◎
Compose a class report using advanced text formatting and layout styles (e.g., single and double spacing, different size and style of fonts, indents, headers and footers, page numbering, table of contents, bibliography)	◎	◎	◎	◎
Classify collected data and construct a simple database by defining fields, entering and sorting data, and producing a report	◎	◎	◎	◎
Construct a simple spreadsheet, enter data, and interpret (explain) the information	◎	◎	◎	◎
Plot and use different types of charts and graphs (e.g., line, bar, stacked, scatter diagram, area, pie charts, pictogram) from a spreadsheet program	◎	◎	◎	◎
Incorporate (insert/copy/paste) database and spreadsheet information (e.g., charts, graphs, lists) into a word-processed document	◎	◎	◎	◎

Standard A Media and Technology A.8.4
By the end of Grade 8 students will use a computer and communications software to access and transmit information.

Please choose what you believe to be your level of proficiency in doing each of the following:

	Can do this task easily	Can do this task with help	Unable to do the task	No idea what this task means
Define basic on-line searching and Internet terminology (e.g., website, HTML, home page,	◎	◎	◎	◎

hypertext link, bookmark, URL address)				
Send an e-mail message with an attachment to several persons simultaneously				
Access information using a modem or network connection to the Internet or other on-line information services				
View, print, save, and open a document from the Internet or other on-line sources				
Use basic search engines and directories to locate resources on a specific topic				
Demonstrate efficient Internet navigation				
Organize World Wide Web bookmarks (favorites) by subject or topic				

Standard A Media and Technology A.8.5
By the end of Grade 8 students will use media and technology to create and present information

Please choose what you believe to be your level of proficiency in doing each of the following:

	Can do this task easily	Can do this task with help	Unable to do the task	No idea what this task means
Use draw, paint, or graphics software (e.g., Photoshop) to create visuals that will enhance a class project or report				
Design and produce a multimedia program (e.g., PowerPoint, Digital Editing, Flash)				
Plan and deliver a presentation using media and technology appropriate to topic, audience, purpose, or content				

Standard A Media and Technology A.8.6
By the end of Grade 8 students will evaluate the use of media and technology in a production or presentation

Please choose what you believe to be your level of proficiency in doing each of the following:

	Can do this task easily	Can do this task with help	Unable to do the task	No idea what this task means
Determine the purpose of a specific production or presentation				
Describe the effectiveness of the media and technology used in a production or presentation				
Identify criteria for judging the technical quality of a production or presentation				
Judge how well the production or presentation meets identified criteria				
Recommend ways to improve future productions or presentations				

Standard B Information and Inquiry B.8.1
By the end of Grade 8 students will define the need for information

Please choose what you believe to be your level of proficiency in doing each of the following:

	Can do this task easily	Can do this task with help	Unable to do the task	No idea what this task means
Identify the information problem or question to be resolved	○	○	○	○
Relate what is already known to the information needed	○	○	○	○
Formulate general and specific research questions using a variety of questioning skills	○	○	○	○
Revise and narrow the information questions to focus on the information need	○	○	○	○

Standard B Information and Inquiry B.8.2
By the end of Grade 8 students will develop information seeking strategies

Please choose what you believe to be your level of proficiency in doing each of the following:

	Can do this task easily	Can do this task with help	Unable to do the task	No idea what this task means
Identify relevant sources of information including print, nonprint, electronic, human, and community resources	○	○	○	○
Evaluate possible sources of information based on criteria of timeliness, genre, point of view, bias, and authority	○	○	○	○
Select multiple sources that reflect differing or supporting points of view	○	○	○	○
Identify and select keywords and phrases for each source, recognizing that different sources use different terminology for similar concepts	○	○	○	○
Organize ideas, concepts, and phrases using webbing, outlines, trees, or other visual or graphic tools	○	○	○	○
Focus search strategies on matching information needs with available resources	○	○	○	○

Standard B Information and Inquiry B.8.3
By the end of Grade 8 students will locate and access information sources

Please choose what you believe to be your level of proficiency in doing each of the following:

	Can do this task easily	Can do this task with help	Unable to do the task	No idea what this task means
Identify the classification system used in the school library media center, public library, and other local libraries	○	○	○	○
Locate materials using the classification systems of the school library media center and the public library	○	○	○	○
Recognize differences in searching bibliographic records, abstracts, or full text databases	○	○	○	○
Search for information by subject, author, title, and keyword	○	○	○	○
Use Boolean operators (e.g., AND, NOT, OR)				

with human or programmed guidance to narrow or broaden searches	○	○	○	○
Use biographical dictionaries, thesauri, and other common reference tools in both print and electronic formats	○	○	○	○
Use a search engine to locate appropriate Internet or Intranet resources	○	○	○	○

Standard B Information and Inquiry B.8.4
By the end of Grade 8 students will evaluate and select information from a variety of print, nonprint, and electronic formats

Please choose what you believe to be your level of proficiency in doing each of the following:

	Can do this task easily	Can do this task with help	Unable to do the task	No idea what this task means
Examine selected resources for pertinent information using previewing techniques to scan for major concepts and keywords	○	○	○	○
Differentiate between primary and secondary sources	○	○	○	○
Distinguish between fact and opinion; recognize point of view or bias	○	○	○	○
Determine if information is timely, valid, accurate, comprehensive, and relevant	○	○	○	○
Analyze and evaluate information presented in charts, graphs, and tables	○	○	○	○
Locate indicators of authority for all sources of information (is the source valid)	○	○	○	○
Select resources in formats appropriate to content and information need and compatible with their own learning style	○	○	○	○

Standard B Information and Inquiry B.8.5
By the end of Grade 8 students will record and organize information

Please choose what you believe to be your level of proficiency in doing each of the following:

	Can do this task easily	Can do this task with help	Unable to do the task	No idea what this task means
Use notetaking strategies including summarizing and paraphrasing	○	○	○	○
Record concise notes in a prescribed manner, including bibliographic information	○	○	○	○
Cite the source of specific quotations or visuals using footnotes, endnotes, or internal citation formats	○	○	○	○
Organize and compare information using graphic organizers, storyboarding, and other relational techniques	○	○	○	○
Organize information in a systematic manner appropriate to question, audience, and intended format of presentation	○	○	○	○
Record sources of information in a standardized bibliographic format	○	○	○	○

Standard B Information and Inquiry B.8.6
By the end of Grade 8 students will interpret and use information to solve the problem or answer the question

Please choose what you believe to be your level of proficiency in doing each of the following:

	Can do this task easily	Can do this task with help	Unable to do the task	No idea what this task means
Compare and integrate new information with prior knowledge	○	○	○	○
Analyze information for relevance to the question	○	○	○	○
Analyze findings to determine need for additional information	○	○	○	○
Gather and synthesize additional information as needed	○	○	○	○
Draw conclusions to address the problem or question	○	○	○	○

Standard B Information and Inquiry B.8.7
By the end of Grade 8 students will communicate the results of research and inquiry in an appropriate format

Please choose what you believe to be your level of proficiency in doing each of the following:

	Can do this task easily	Can do this task with help	Unable to do the task	No idea what this task means
Determine the audience and purpose for the product or presentation	○	○	○	○
Identify possible communication or production formats (e.g., PowerPoint, FrontPage Website)	○	○	○	○
Select a presentation format appropriate to the topic, audience, purpose, content, and technology available	○	○	○	○
Develop an original product or presentation which addresses the information problem or question	○	○	○	○

Standard B Information and Inquiry B.8.8
By the end of Grade 8 students will evaluate the information product and process

Please choose what you believe to be your level of proficiency in doing each of the following:

	Can do this task easily	Can do this task with help	Unable to do the task	No idea what this task means
Identify the criteria to be used in judging both the product (or presentation) and the process	○	○	○	○
Determine how well research conclusions and product meet the original information need or question based on the identified criteria	○	○	○	○
Assess the process based on identified criteria (i.e. decide if you met the goals and how well you developed the project)	○	○	○	○
Summarize ways in which the process and product can be improved	○	○	○	○

Standard C Independent Learning C.8.1
By the end of Grade 8 students will pursue information related to various dimensions of personal well-being and academic success

Please choose what you believe to be your level of proficiency in doing each of the following:

	Can do this task easily	Can do this task with help	Unable to do the task	No idea what this task means
Identify topics of interest and seek relevant information about them	○	○	○	○
Identify information appropriate for decision-making and personal interest	○	○	○	○
Recognize that accurate and complete information is basic to sound decision in both personal and academic pursuits	○	○	○	○

Standard C Independent Learning C.8.2
By the end of Grade 8 students will appreciate and derive meaning from literature and other creative expressions of information

Please choose what you believe to be your level of proficiency in doing each of the following:

	Can do this task easily	Can do this task with help	Unable to do the task	No idea what this task means
Recognize that reviews, evaluations, and guidance from teacher, library media specialists, and others assist in the selection of appropriate literature and creative expression of information	○	○	○	○
Identify and pursue personal criteria for choosing literature and other creative expressions of information	○	○	○	○
Relate literature and creative expressions of information to personal experiences	○	○	○	○
Relate literature and creative expressions of information to other literature or creative expression of information	○	○	○	○

Standard C Independent Learning C.8.3
By the end of Grade 8 students will develop competence and selectivity in reading, listening, and viewing

Please choose what you believe to be your level of proficiency in doing each of the following:

	Can do this task easily	Can do this task with help	Unable to do the task	No idea what this task means
Choose materials at appropriate developmental levels	○	○	○	○
Identify and select materials that reflect diverse perspectives	○	○	○	○
Identify characteristics of common literary forms	○	○	○	○
Recognize how words, images, sounds, and illustrations can be constructed to convey specific messages, viewpoints, and values	○	○	○	○

Standard C Independent Learning C.8.4
By the end of Grade 8 students will develop competence and selectivity in reading, listening, and viewing

Please choose what you believe to be your level of proficiency in doing each of the following:

	Can do this task easily	Can do this task with help	Unable to do the task	No idea what this task means
Participate in decisions about group and classroom projects and learning objectives	○	○	○	○
Identify and select topics of personal interest to expand classroom learning projects	○	○	○	○
Recommend criteria for judging success of learning projects	○	○	○	○
Establish goals and develop a plan for completing projects on time and within the scope of the assignment	○	○	○	○
Evaluate progress and quality of personal learning	○	○	○	○
Establish personal goals in pursuit of individual interests, academic requirements, and career paths	○	○	○	○

Standard D The Learning Community D.8.1
By the end of Grade 8 students will participate productively in workgroups or other collaborative learning environments

Please choose what you believe to be your level of proficiency in doing each of the following:

	Can do this task easily	Can do this task with help	Unable to do the task	No idea what this task means
Collaborate with others to identify information needs and seek solutions	○	○	○	○
Demonstrate acceptance to new ideas and strategies from workgroup members	○	○	○	○
Determine workgroup goals and equitable distribution of individual or subgroup responsibilities and tasks	○	○	○	○
Plan for the efficient use and allocation of time	○	○	○	○
Complete the workgroup projects on time	○	○	○	○
Evaluate completed projects to determine how the workgroup could have functioned more efficiently and productively	○	○	○	○

Standard D The Learning Community D.8.2
By the end of Grade 8 students will use information, media, and technology in a responsible manner

Please choose what you believe to be your level of proficiency in doing each of the following:

	Can do this task easily	Can do this task with help	Unable to do the task	No idea what this task means
Return all borrowed materials on time	○	○	○	○
Describe and explain the school policy on technology and network use, media borrowing, and Internet access	○	○	○	○

Demonstrate responsible use of the Internet and other electronic resources consistent with the school's acceptable use policy	○	○	○	○
Recognize that using media and technology to defame or libel another person or group constitutes unacceptable behavior	○	○	○	○
Identify and define the consequences of violations to the school's policies on media and technology use	○	○	○	○
Recognize the need for privacy and protection of personal information	○	○	○	○

Standard D The Learning Community D.8.3
By the end of Grade 8 students will respect intellectual property rights

Please choose what you believe to be your level of proficiency in doing each of the following:

	Can do this task easily	Can do this task with help	Unable to do the task	No idea what this task means
Define the purpose of copyright and copyright law	○	○	○	○
Identify what kinds of works of authorship can be copyrighted	○	○	○	○
Explain the concept of "fair use" as it pertains to the copyright law	○	○	○	○
Recognize that the "fair use" provision may differ depending on the media format	○	○	○	○
Relate examples of copyright violations	○	○	○	○
Cite the source for works which are quoted verbatim and for pictures, graphics, and audio or video segments which are used in a product or presentation	○	○	○	○

Standard D The Learning Community D.8.4
By the end of Grade 8 students will recognize the importance of intellectual freedom and access to information in a democratic society

Please choose what you believe to be your level of proficiency in doing each of the following:

	Can do this task easily	Can do this task with help	Unable to do the task	No idea what this task means
Explain the concept of intellectual freedom	○	○	○	○
Identify examples and explain the implications of censorship in the United States and in other countries	○	○	○	○
Explain the importance of the principle of equitable access to information (equitable means that all citizens have access)	○	○	○	○
Compare and contrast freedom of the press in different situations and geographic areas	○	○	○	○
Recognize that the free-flow of information contributes to an informed citizenry resulting in sound decisions for the common good	○	○	○	○

Appendix E: Teacher Survey on WITLS

Wisconsin Information & Technology Literacy Standards (WITLS)

"This research has been approved by the UW-Stout IRB as required by the Code of Federal regulations Title 45 Part 46."

Response Category Key:

Most can do this task easily without help	**You can include the task in an assignment and most can do the task without asking you for help.**
Most can do this task with help	**You need to give a simple, short, general overview so most students are reminded of the task and how to proceed without a lot of assistance.**
Most are unable to do this task	**You have included the task in a class assignment and most students cannot remember how to continue with the task without a lot of reteaching and assistance.**
Not observed	**This task is not included in curricular activities.**

WITLS TEACHER SURVEY Implementation of Wisconsin Information & Technology Literacy Standards

Wisconsin Information & Technology Literacy Standards (WITLS)

"This research has been approved by the UW-Stout IRB as required by the Code of Federal regulations Title 45 Part 46."

WITLS TEACHER SURVEY Implementation of Wisconsin Information & Technology Literacy Standards

Standard A Media and Technology A.8.1
By the end of Grade 8 students will use common media and technology terminology and equipment.

Please choose the overall skill level you observed during the 2008-2009 school year in Gilman students-Grade 8.

	Most can do this task easily without help	Most can do this task with help	Most are unable to do this task	Not observed
Identify and define computer and networking terms (e.g., modem, file server, client station, LAN, Internet/Intranet, data storage device)	○	○	○	○
Demonstrate the correct operation of a computer system on a network	○	○	○	○
Demonstrate touch keyboarding skills at acceptable speed and accuracy levels (20-25 wpm)	○	○	○	○
Organize and backup files on a computer disk, drive, server, or other storage device	○	○	○	○
Recognize and solve routine computer hardware and software problems	○	○	○	○
Use basic content-specific tools (e.g., environmental probes, measurement sensors) to provide evidence/support in a class project	○	○	○	○
Scan, crop, and save a graphic using a scanner, digital camera, or other digitizing equipment	○	○	○	○
Use simple graphing calculator functions to solve a problem	○	○	○	○
Capture, edit, and combine video segments using a multimedia computer with editing software or a video editing system	○	○	○	○

Standard A Media and Technology A.8.2
By the end of Grade 8 students will identify and use common media formats.

Please choose the overall skill level you observed during the 2008-2009 school year in Gilman students-Grade 8.

	Most can do this task easily without help	Most can do this task with help	Most are unable to do this task	Not observed
Define the operating and file management software of a computer (e.g. desktop, file, window, folder, directory, pull-down menu, dialog box)	○	○	○	○
Identify the various organizational patterns used in different kinds of reference books	○	○	○	○

Define the basic types of learning software (e.g., drill and practice, tutorial, simulation)				
Use electronic encyclopedias, almanacs, indexes, and catalogs to retrieve and select information				
Describe the various applications of productivity software programs (e.g., word processing , database, spreadsheet, presentation, communication, drawing, desktop publishing)				
Identify common integrated software packages or application suites (e.g., Microsoft Office)				
Use a common graphics program to create or modify detail to an image or picture (e.g., Photoshop)				

Standard A Media and Technology A.8.3
By the end of Grade 8 students will use a computer and productivity software to organize and create information.

Please choose the overall skill level you observed during the 2008-2009 school year in Gilman students- Grade 8.

	Most can do this task easily without help	Most can do this task with help	Most are unable to do this task	Not observed
Explain the use of basic word processing functions (e.g., menu, tool bars, dialog boxes, radio buttons, spell checker, thesaurus, page layout, headers and footers, word count, tabs)				
Use the spell checker and thesaurus functions of a word processing program				
Move textual and graphics data from one document to another				
Use graphics software to import pictures, images, and charts into documents (i.e. insert pictures and charts into Word documents)				
Use a graphical organizer program to construct outlines or webs that organize ideas and information (e.g., Inspiration)				
Compose a class report using advanced text formatting and layout styles (e.g., single and double spacing, different size and style of fonts, indents, headers and footers, page numbering, table of contents, bibliography)				
Classify collected data and construct a simple database by defining fields, entering and sorting data, and producing a report				
Construct a simple spreadsheet, enter data, and interpret (explain) the information				
Plot and use different types of charts and graphs (e.g., line, bar, stacked, scatter diagram, area, pie charts, pictogram) from a spreadsheet program				
Incorporate (insert/copy/paste) database and spreadsheet information (e.g., charts, graphs, lists) into a word-processed document				

Standard A Media and Technology A.8.4
By the end of Grade 8 students will use a computer and communications software to access and transmit

information.

Please choose the overall skill level you observed during the 2008-2009 school year in Gilman students- Grade 8.

	Most can do this task easily without help	Most can do this task with help	Most are unable to do this task	Not observed
Define basic on-linesearching and Internet terminology (e.g., website, HTML, home page, hypertext link, bookmark, URL address)	○	○	○	○
Send an e-mail message with an attachment to several persons simultaneously	○	○	○	○
Access information using a modem or network connection to the Internet or other on-line information services	○	○	○	○
View, print, save, and open a document from the Internet or other on-line sources	○	○	○	○
Use basic search engines and directories to locate resources on a specific topic	○	○	○	○
Demonstrate efficient Internet navigaiton	○	○	○	○
Organize World Wide Web bookmarks (favorites) by subject or topic	○	○	○	○

Standard A Media and Technology A.8.5
By the end of Grade 8 students will use media and technology to create and present information

Please choose the overall skill level you observed during the 2008-2009 school year in Gilman students- Grade 8.

	Most can do this task easily without help	Most can do this task with help	Most are unable to do this task	Not observed
Use draw, paint, or graphics software (e.g., Photoshop) to create visuals that will enhance a class project or report	○	○	○	○
Design and produce a multimedia program (e.g., PowerPoint, Digital Editing, Flash)	○	○	○	○
Plan and deliver a presentation using media and technology appropriate to topic, audience, purpose, or content	○	○	○	○

Standard A Media and Technology A.8.6
By the end of Grade 8 students will evaluate the use of media and technology in a production or presentation

Please choose the overall skill level you observed during the 2008-2009 school year in Gilman students- Grade 8.

	Most can do this task easily without help	Most can do this task with help	Most are unable to do this task	Not observed
Determine the purpose of a specific production or presentation	○	○	○	○
Describe the effectiveness of the media and technology used in a production or presentation	○	○	○	○
Identify criteria for judging the technical quality of	○	○	○	○

a production or presentation				
Judge how well the production or presentation meets identified criteria				
Recommend ways to improve future productions or presentations				

Standard B Information and Inquiry B.8.1
By the end of Grade 8 students will define the need for information

Please choose the overall skill level you observed during the 2008-2009 school year in Gilman students-Grade 8.

	Most can do this task easily without help	Most can do this task with help	Most are unable to do this task	Not observed
Identify the information problem or question to be resolved				
Relate what is already known to the information needed				
Formulate general and specific research questions using a variety of questioning skills				
Revise and narrow the information questions to focus on the information needed				

Standard B Information and Inquiry B.8.2
By the end of Grade 8 students will develop information seeking strategies

Please choose the overall skill level you observed during the 2008-2009 school year in Gilman students-Grade 8.

	Most can do this task easily without help	Most can do this task with help	Most are unable to do this task	Not observed
Identify relevant sources of information including print, nonprint, electronic, human, and community resources				
Evaluate possible sources of information based on criteria of timeliness, genre, point of view, bias, and authority				
Select multiple sources that reflect differing or supporting points of view				
Identify and select keywords and phrases for each source, recognizing that different sources use different terminology for similar concepts				
Organize ideas, concepts, and phrases using webbing, outlines, trees, or other visual or graphic tools				
Focus search strategies on matching information needs with available resources				

Standard B Information and Inquiry B.8.3
By the end of Grade 8 students will locate and access information sources

Please choose the overall skill level you observed during the 2008-2009 school year in Gilman students-

Grade 8.

	Most can do this task easily without help	Most can do this task with help	Most are unable to do this task	Not observed
Identify the classification system used in the school library media center, public library, and other local libraries				
Locate materials using the classification systems of the school library media center and the public library				
Recognize differences in searching bibliographic records, abstracts, or full text databases				
Search for information by subject, author, title, and keyword				
Use Boolean operators with human or programmed guidance to narrow or broaden searches				
Use biographical dictionaries, thesauri, and other common reference tools in both print and electronic formats				
Use a search engine to locate appropriate Internet or Intranet resources				

Standard B Information and Inquiry B.8.4
By the end of Grade 8 students will evaluate and select information from a variety of print, nonprint, and electronic formats

Please choose the overall skill level you observed during the 2008-2009 school year in Gilman students- Grade 8.

	Most can do this task easily without help	Most can do this task with help	Most are unable to do this task	Not observed
Examine selected resources for pertinent information using previewing techniques to scan for major concepts and keywords				
Differentiate between primary and secondary sources				
Distinguish between fact and opinion; recognize point of view or bias				
Determine if information is timely, valid, accurate, comprehensive, and relevant				
Analyze and evaluate information presented in charts, graphs, and tables				
Locate indicators of authority for all sources of information (is the source valid)				
Select resources in formats appropriate to content and information need and compatible with their own learning style				

Standard B Information and Inquiry B.8.5
By the end of Grade 8 students will record and organize information

Please choose the overall skill level you observed during the 2008-2009 school year in Gilman students- Grade 8.

	Most can do this task easily without help	Most can do this task with help	Most are unable to do this task	Not observed
Use notetaking strategies including summarizing and paraphrasing	◎	◎	◎	◎
Record concise notes in a prescribed manner, including bibliographic information	◎	◎	◎	◎
Cite the source of specific quotations or visuals using footnotes, endnotes, or internal citation formats	◎	◎	◎	◎
Organize and compare information using graphic organizers, storyboarding, and other relational techniques	◎	◎	◎	◎
Organize information in a systematic manner appropriate to question, audience, and intended format of presentation	◎	◎	◎	◎
Record sources of information in a standardized bibliographic format	◎	◎	◎	◎

Standard B Information and Inquiry B.8.6
By the end of Grade 8 students will interpret and use information to solve the problem or answer the question

Please choose the overall skill level you observed during the 2008-2009 school year in Gilman students-Grade 8.

	Most can do this task easily	Most can do this task with help	Most are unable to do this task	Not observed
Compare and integrate new information with prior knowledge	◎	◎	◎	◎
Analyze information for relevance to the question	◎	◎	◎	◎
Analyze findings to determine need for additional information	◎	◎	◎	◎
Gather and synthesize additional information as needed	◎	◎	◎	◎
Draw conclusions to address the problem or question	◎	◎	◎	◎

Standard B Information and Inquiry B.8.7
By the end of Grade 8 students will communicate the results of research and inquiry in an appropriate format

Please choose the overall skill level you observed during the 2008-2009 school year in Gilman students-Grade 8.

	Most can do this task easily without help	Most can do this task with help	Most are unable to do this task	Not observed
Determine the audience and purpose for the product or presentation	◎	◎	◎	◎
Identify possible communication or production formats	◎	◎	◎	◎
Select a presentation format appropriate to the topic, audience, purpose, content, and technology available	◎	◎	◎	◎

Develop an original product or presentation which addresses the information problem or question				

Standard B Information and Inquiry B.8.8
By the end of Grade 8 students will evaluate the information product and process

Please choose the overall skill level you observed during the 2008-2009 school year in Gilman students-Grade 8.

	Most can do this task easily without help	Most can do this task with help	Most are unable to do this task	Not observed
Identify the criteria to be used in judging both the product (or presentation) and the process				
Determine how well research conclusions and product meet the original information need or question based on the identified criteria				
Assess the process based on identified criteria				
Summarize ways in which the process and product can be improved				

Standard C Independent Learning C.8.1
By the end of Grade 8 students will pursue information related to various dimensions of personal well-being and academic success

Please choose the overall skill level you observed during the 2008-2009 school year in Gilman students-Grade 8.

	Most can do this task easily without help	Most can do this task with help	Most are unable to do this task	Not observed
Identify topics of interest and seek relevant information about them				
Identify information appropriate for decision-making and personal interest				
Recognize that accurate and complete information is basic to sound decision in both personal and academic pursuits				

Standard C Independent Learning C.8.2
By the end of Grade 8 students will appreciate and derive meaning from literature and other creative expressions of information

Please choose the overall skill level you observed during the 2008-2009 school year in Gilman students-Grade 8.

	Most can do this task easily without help	Most can do this task with help	Most are unable to do this task	Not observed
Recognize that reviews, evaluations, and guidance from teacher, library media specialists, and others assist in the selection of appropriate literature and creative expression of information				
Identify and pursue personal criteria for choosing literature and other creative expressions of				

information				
Relate literature and creative expressions of information to personal experiences				
Relate literature and creative expressions of information to other literature or creative expression of information				

Standard C Independent Learning C.8.3
By the end of Grade 8 students will develop competence and selectivity in reading, listening, and viewing

Please choose the overall skill level you observed during the 2008-2009 school year in Gilman students-Grade 8.

	Most can do this task easily without help	Most can do this task with help	Most are unable to do this task	Not observed
Choose materials at appropriate developmental levels				
Identify and select materials that reflect diverse perspectives				
Identify characteristics of common literary forms				
Recognize how words, images, sounds, and illustrations can be constructed to convey specific messages, viewpoints, and values				

Standard C Independent Learning C.8.4
By the end of Grade 8 students will develop competence and selectivity in reading, listening, and viewing

Please choose the overall skill level you observed during the 2008-2009 school year in Gilman students-Grade 8.

	Most can do this task easily without help	Most can do this task with help	Most are unable to do this task	Not observed
Participate in decisions about group and classroom projects and learning objectives				
Identify and select topics of personal interest to expand classroom learning projects				
Recommend criteria for judging success of learning projects				
Establish goals and develop a plan for completing projects on time and within the scope of the assignment				
Evaluate progress and quality of personal learning				
Establish personal goals in pursuit of individual interests, academic requirements, and career paths				

Standard D The Learning Community D.8.1
By the end of Grade 8 students will participate productively in workgroups or other collaborative learning environments

Please choose the overall skill level you observed during the 2008-2009 school year in Gilman students- Grade 8.

	Most can do this task easily without help	Most can do this task with help	Most are unable to do this task	Not observed
Collaborate with others to identify information needs and seek solutions	◎	◎	◎	◎
Demonstrate acceptance to new ideas and strategies from workgroup members	◎	◎	◎	◎
Determine workgroup goals and equitable distribution of individual or subgroup responsibilities and tasks	◎	◎	◎	◎
Plan for the efficient use and allocation of time	◎	◎	◎	◎
Complete the workgroup projects on time	◎	◎	◎	◎
Evaluate completed projects to determine how the workgroup could have functioned more efficiently and productively	◎	◎	◎	◎

Standard D The Learning Community D.8.2
By the end of Grade 8 students will use information, media, and technology in a responsible manner

Please choose the overall skill level you observed during the 2008-2009 school year in Gilman students- Grade 8.

	Most can do this task easily without help	Most can do this task with help	Most are unable to do this task	Not observed
Return all borrowed materials on time	◎	◎	◎	◎
Describe and explain the school policy on technology and network use, media borrowing, and Internet access	◎	◎	◎	◎
Demonstrate responsible use of the Internet and other electronic resources consistent with the school's acceptable use policy	◎	◎	◎	◎
Recognize that using media and technology to defame or libel another person or group constitutes unacceptable behavior	◎	◎	◎	◎
Identify and define the consequences of violations to the school's policies on media and technology use	◎	◎	◎	◎
Recognize the need for privacy and protection of personal information	◎	◎	◎	◎

Standard D The Learning Community D.8.3
By the end of Grade 8 students will respect intellectual property rights

Please choose the overall skill level you observed during the 2008-2009 school year in Gilman students- Grade 8.

	Most can do this task easily without help	Most can do this task with help	Most are unable to do this task	Not observed
Define the purpose of copyright and copyright law	◎	◎	◎	◎

Identify what kinds of works of authorship can be copyrighted	◎	◎	◎	◎
Explain the concept of "fair use" as it pertains to the copyright law	◎	◎	◎	◎
Recognize that the "fair use" provision may differ depending on the media format	◎	◎	◎	◎
Relate examples of copyright violations	◎	◎	◎	◎
Cite the source for works which are quoted verbatim and for pictures, graphics, and audio or video segments which are used in a product or presentation	◎	◎	◎	◎

Standard D The Learning Community D.8.4
By the end of Grade 8 students will recognize the importance of intellectual freedom and access to information in a democratic society

Please choose the overall skill level you observed during the 2008-2009 school year in Gilman students- Grade 8.

	Most can do this task easily without help	Most can do this task with help	Most are unable to do this task	Not observed
Explain the concept of intellectual freedom	◎	◎	◎	◎
Identify examples and explain the implications of censorship in the United States and in other countries	◎	◎	◎	◎
Explain the importance of the principle of equitable access to information	◎	◎	◎	◎
Compare and contrast freedom of the press in different situations and geographic areas	◎	◎	◎	◎
Recognize that the free-flow of information contributes to an informed citizenry resulting in sound decisions for the common good	◎	◎	◎	◎

Other Standards Questions for Teachers

Do you indicate in your gradebook in some way which student activities meet Wisconsin Information and Technology Literacy Standards (WITLS) ?

- ☐ Most Often
- ☐ Sometimes
- ☐ Seldom
- ☐ Never

Do you label WITLS activities in your lesson plans?

- ◎ Most Often
- ◎ Sometimes
- ◎ Seldom

- Never

Please respond to each of the following statements.

I am aware of the ten Wisconsin Teaching Standards.

- Strongly Agree
- Agree
- Neither Agree nor Disagree
- Disagree
- Strongly Disagree

I am aware of the National Educational Technology Standards for Teachers?

- Strongly Agree
- Agree
- Neither Agree nor Disagree
- Disagree
- Strongly Disagree

I am aware of the National Education Technology Standards for Students?

- Strongly Agree
- Agree
- Neither Agree nor Disagree
- Disagree
- Strongly Disagree

I use a standard tool for problem solving activities in the classroom. e.g., Big6 Steps in Problem Solving, structured diagram, chart?

- Strongly Agree
- Agree
- Neither Agree nor Disagree
- Disagree
- Strongly Disagree

Appendix F: Survey Response Tables

Table 26—Survey Results for Standard A Media and Technology

	Teachers				Students			
WITLS and Related Tasks	Do task easily	Do task with help	Unable to do task	Did not observe	Do task easily	Do task with help	Unable to do task	No idea what task means
Standard A Media and Technology A.8.1								
Identify and define computer and networking terms	41%	35%	0%	24%	25%	67%	3%	5%
Demonstrate the correct operation of a computer	65%	29%	0%	6%	47%	36%	6%	11%
Demonstrate touch keyboarding skills at acceptable speed and accuracy levels (20-25 wpm)	47%	35%	0%	18%	83%	11%	6%	0%
Organize and backup files on a computer disk, drive, server, or other storage device	65%	12%	12%	11%	50%	39%	11%	0%
Recognize and solve routine computer hardware and software problems	0%	59%	18%	23%	20%	51%	23%	6%
Use basic content-specific tools to provide evidence/support in a class project	12%	29%	0%	59%	36%	42%	3%	19%
Scan, crop, and save a graphic using a scanner, digital camera, or other digitizing equipment	35%	35%	0%	30%	68%	26%	3%	3%
Use simple graphing calculator functions to solve a problem	24%	29%	6%	41%	81%	16%	3%	0%
Capture, edit, and combine video segments using a multimedia computer with editing software or a video editing system	12%	47%	6%	35%	17%	67%	11%	5%

Table 26—Survey Results for Standard A Media and Technology (continued)

	Teachers				Students			
WITLS and Related Tasks	Do task easily	Do task with help	Unable to do task	Did not observe	Do task easily	Do task with help	Unable to do task	No idea what task means
Standard A Media and Technology A.8.2								
Define the operating and file management software of a computer	71%	17%	0%	12%	63%	28%	6%	3%
Identify the various organizational patterns used in different kinds of reference books	0%	47%	0%	53%	43%	37%	20%	0%
Define the basic types of learning software	12%	47%	6%	35%	51%	37%	3%	9%
Use electronic encyclopedias, almanacs, indexes, and catalogs to retrieve and select information	71%	17%	0%	12%	74%	20%	6%	0%
Describe the various applications of productivity software programs	59%	23%	0%	18%	77%	20%	0%	3%
Identify common integrated software packages or application suites	59%	12%	6%	23%	49%	40%	5%	6%
Use a common graphics program to create or modify detail to an image or picture	35%	41%	0%	24%	89%	8%	3%	0%
Standard A Media and Technology A.8.3								
Explain the use of basic word processing functions	71%	17%	0%	12%	83%	14%	0%	3%
Use the spell checker and thesaurus functions of a word processing program	82%	12%	0%	6%	92%	8%	0%	0%
Move textual and graphics data from on document to another	65%	17%	0%	18%	83%	17%	0%	0%
Use graphics software to import pictures, images, and charts into documents	41%	35%	0%	24%	83%	14%	3%	0%

Table 26—Survey Results for Standard A Media and Technology (continued)

	Teachers				Students			
WITLS and Related Tasks	Do task easily	Do task with help	Unable to do task	Did not observe	Do task easily	Do task with help	Unable to do task	No idea what task means
Use a graphical organizer program to construct outlines or webs that organize ideas and information	6%	41%	12%	41%	39%	50%	8%	3%
Compose a class report using advanced text formatting and layout styles	41%	41%	0%	18%	89%	11%	0%	0%
Classify collected data and construct a simple database by defining fields, entering and sorting data, and producing a report	0%	71%	0%	29%	72%	19%	3%	6%
Construct a simple spreadsheet, enter data, and interpret the information	18%	53%	6%	23%	83%	11%	6%	0%
Plot and use different types of charts and graphs	6%	47%	12%	35%	64%	30%	3%	3%
Incorporate database and spreadsheet information into a word-processed document	18%	41%	6%	35%	75%	22%	3%	0%
Standard A Media and Technology A.8.4								
Define basic on-line searching and internet terminology	47%	29%	6%	18%	56%	33%	8%	3%
Send an e-mail message with an attachment to several persons simultaneously	76%	12%	0%	12%	78%	19%	3%	0%
Access information using a modem or network connection to the internet or other on-line information services	76%	18%	0%	6%	75%	11%	14%	0%
View, print, save, and open a document from the internet or other on-line sources	88%	12%	0%	0%	89%	11%	0%	0%

Table 26—Survey Results for Standard A Media and Technology (continued)

	Teachers				Students			
WITLS and Related Tasks	Do task easily	Do task with help	Unable to do task	Did not observe	Do task easily	Do task with help	Unable to do task	No idea what task means
Use basic search engines and directories to locate resources on a specific topic	82%	12%	0%	6%	86%	8%	3%	3%
Demonstrate efficient internet navigation	88%	12%	0%	0%	74%	20%	3%	3%
Organize World Wide Web bookmarks by subject or topic	65%	6%	0%	29%	53%	31%	11%	5%
Standard A Media and Technology A.8.5								
Use draw, paint, or graphics software to create visuals that will enhance a class project or report	24%	53%	0%	23%	83%	17%	0%	0%
Design and produce a multimedia program	35%	30%	0%	35%	63%	34%	3%	0%
Plan and deliver a presentation using media and technology appropriate to topic, audience, purpose, or content	44%	31%	0%	25%	57%	31%	6%	6%
Standard A Media and Technology A.8.6								
Determine the purpose of a specific production or presentation	30%	35%	6%	29%	56%	29%	6%	9%
Describe the effectiveness of the media and technology used in a production or presentation	12%	53%	6%	29%	37%	37%	17%	9%
Identify criteria for judging the technical quality of a production or presentation	12%	41%	12%	35%	43%	34%	12%	11%
Judge how well the production or presentation meets identified criteria	6%	53%	6%	35%	71%	14%	9%	6%
Recommend ways to improve future productions or presentations	6%	53%	6%	35%	63%	29%	8%	0%

Table 27—Survey Results for Standard B Information and Inquiry

	Teachers				Students			
WITLS and Related Tasks	Do task easily	Do task with help	Unable to do task	Did not observe	Do task easily	Do task with help	Unable to do task	No idea what task means
Standard B Information and Inquiry B.8.1								
Identify the information problem or question to be resolved	35%	35	0%	30%	54%	37%	3%	6%
Relate what is already known to the information needed	6%	59%	6%	29%	51%	43%	3%	3%
Formulate general and specific research questions using a variety of questioning skills	0%	59%	12%	29%	49%	40%	6%	5%
Revise and narrow the information questions to focus on the information need	6%	59%	6%	29%	40%	43%	14%	3%
Standard B Information and Inquiry B.8.2								
Identify relevant sources of information including print, nonprint, electronic, human, and community resources	29%	53%	0%	18%	37%	54%	3%	6%
Evaluate possible sources of information based on criteria of timeliness, genre, point of view, bias, and authority	12%	47%	12%	29%	56%	25%	11%	8%
Select multiple sources that reflect differing or supporting points of view	6%	59%	6%	29%	61%	31%	0%	8%
Identify and select keywords and phrases for each source, recognizing that different sources use different terminology for similar concepts	18%	59%	0%	23%	69%	17%	0%	14%
Organize ideas, concepts, and phrases using webbing, outlines, trees, or other visual or graphic tools	6%	53%	12%	29%	55%	39%	3%	3%

Table 27—Survey Results for Standard B Information and Inquiry (continued)

	Teachers				Students			
WITLS and Related Tasks	Do task easily	Do task with help	Unable to do task	Did not observe	Do task easily	Do task with help	Unable to do task	No idea what task means
Focus search strategies on matching information needs with available resources	12%	53%	6%	29%	56%	28%	11%	5%
Standard B Information and Inquiry B.8.3								
Identify the classification system used in the school library media center, public library, and other local libraries	30%	29%	0%	41%	50%	39%	6%	5%
Locate materials using the classification systems of the school library media center and the public library	30%	29%	0%	41%	53%	39%	3%	5%
Recognize differences in searching bibliographic records, abstracts, or full text databases	0%	47%	12%	41%	47%	42%	3%	8%
Search for information by subject, author, title, and keyword	53%	35%	0%	12%	86%	14%	0%	0%
Use Boolean operators with human or programmed guidance to narrow or broaden searches	0%	47%	0%	53%	19%	56%	0%	25%
Use biographical dictionaries, thesauri, and other common reference tools in both print and electronic formats	29%	53%	0%	18%	56%	28%	8%	8%
Use a search engine to locate appropriate internet or intranet resources	65%	29%	0%	6%	86%	11%	0%	3%
Standard B Information and Inquiry B.8.4								
Examine selected resources for pertinent information using previewing techniques to scan for major concepts for keywords	24%	35%	0%	41%	42%	42%	5%	11%

Table 27—Survey Results for Standard B Information and Inquiry (continued)

	Teachers				Students			
WITLS and Related Tasks	Do task easily	Do task with help	Unable to do task	Did not observe	Do task easily	Do task with help	Unable to do task	No idea what task means
Differentiate between primary and secondary sources	12%	29%	12%	47%	56%	31%	5%	8%
Distinguish between fact and opinion; recognize point of view or bias	6%	53%	12%	29%	72%	19%	6%	3%
Determine if information is timely, valid, accurate, comprehensive, and relevant	12%	59%	12%	17%	71%	17%	9%	3%
Analyze and evaluate information presented in charts, graphs, and tables	19%	44%	6%	31%	78%	14%	8%	0%
Locate indicators of authority for all sources of information	12%	35%	12%	41%	42%	44%	3%	11%
Select resources in formats appropriate to content and information need and compatible with their own learning style	6%	47%	12%	35%	56%	31%	5%	8%
Standard B Information and Inquiry B.8.5								
Use notetaking strategies including summarizing and paraphrasing	6%	53%	12%	29%	61%	25%	3%	11%
Record concise notes in a prescribed manner, including bibliographic information	0%	53%	18%	29%	42%	42%	5%	11%
Cite the source of specific quotations or visuals using footnotes, endnotes, or internal citation formats	6%	47%	12%	35%	50%	36%	8%	6%
Organize and compare information using graphic organizers, storyboarding, and other relational techniques	12%	35%	6%	47%	42%	42%	8%	8%

Table 27—Survey Results for Standard B Information and Inquiry (continued)

	Teachers				Students			
WITLS and Related Tasks	Do task easily	Do task with help	Unable to do task	Did not observe	Do task easily	Do task with help	Unable to do task	No idea what task means
Organize information in a systematic manner appropriate to question, audience, and intended format of presentation	18%	35%	18%	29%	42%	47%	3%	8%
Record sources of information in a standardized bibliographic format	6%	53%	6%	35%	42%	42%	3%	13%
Standard B Information and Inquiry B.8.6								
Compare and integrate new information with prior knowledge	18%	53%	6%	23%	70%	19%	3%	8%
Analyze information for relevance to the question	12%	59%	6%	23%	61%	20%	8%	11%
Analyze findings to determine need for additional information	6%	59%	6%	29%	75%	19%	0%	6%
Gather and synthesize additional information as needed	6%	47%	18%	29%	69%	17%	3%	11%
Draw conclusions to address the problem or question	12%	47%	18%	23%	75%	17%	5%	3%
Standard B Information and Inquiry B.8.7								
Determine the audience and purpose for the product or presentation	30%	41%	0%	29%	61%	33%	3%	3%
Identify possible communication or production formats	12%	41%	12%	35%	72%	22%	3%	3%
Select a presentation format appropriate to the topic, audience, purpose, content, and technology available	6%	56%	0%	38%	70%	22%	0%	8%

Table 27—Survey Results for Standard B Information and Inquiry (continued)

	Teachers				Students			
WITLS and Related Tasks	Do task easily	Do task with help	Unable to do task	Did not observe	Do task easily	Do task with help	Unable to do task	No idea what task means
Develop an original product or presentation which addresses the information problem or question	12%	59%	0%	29%	58%	31%	6%	5%
Standard B Information and Inquiry B.8.8								
Identify the criteria to be used in judging both the product and the process	12%	35%	6%	47%	44%	42%	6%	8%
Determine how well research conclusions and product meet the original information need or question based on the identified criteria	13%	31%	6%	50%	36%	50%	6%	8%
Assess the process based on identified criteria	12%	35%	6%	47%	70%	22%	8%	0%
Summarize ways in which the process and product can be improved	12%	35%	6%	47%	58%	39%	0%	3%

Table 28—Survey Results for Standard C Independent Learning

	Teachers				Students			
WITLS and Related Tasks	Do task easily	Do task with help	Unable to do task	Did not observe	Do task easily	Do task with help	Unable to do task	No idea what task means
Standard C Independent Learning C.8.1								
Identify topics of interest and seek relevant information about them	59%	35%	0%	6%	75%	22%	3%	0%
Identify information appropriate for decision-making and personal interest	47%	47%	0%	6%	66%	28%	3%	3%
Recognize that accurate and complete information is basic to sound decisions in both personal and academic pursuits	41%	53%	0%	6%	58%	28%	11%	3%
Standard C Independent Learning C.8.2								
Recognize that reviews, evaluations, and guidance from teacher, library media specialists, and others assist in the selection of appropriate literature and creative expression of information	35%	41%	0%	24%	39%	42%	0%	19%
Identify and pursue personal criteria for choosing literature and other creative expressions of information	29%	53%	0%	18%	53%	30%	3%	14%
Relate literature and creative expressions of information to personal experiences	18%	53%	6%	23%	67%	22%	6%	5%
Relate literature and creative expressions of information to other literature or creative expressions of information	18%	47%	6%	29%	47%	36%	0%	17%

Table 28—Survey Results for Standard C Independent Learning (continued)

	Teachers				Students			
WITLS and Related Tasks	Do task easily	Do task with help	Unable to do task	Did not observe	Do task easily	Do task with help	Unable to do task	No idea what task means
Standard C Independent Learning C.8.3								
Choose materials at appropriate developmental levels	23%	53%	0%	24%	74%	20%	6%	0%
Identify and select materials that reflect diverse perspectives	18%	59%	0%	23%	54%	37%	0%	9%
Identify characteristics of common literary forms	24%	29%	12%	35%	54%	37%	0%	9%
Recognize how words, images, sounds, and illustrations can be constructed to convey specific messages, viewpoints, and values	12%	65%	0%	23%	65%	26%	6%	3%
Standard C Independent Learning C.8.4								
Participate in decisions about group and classroom projects and learning objectives	47%	53%	0%	0%	72%	25%	3%	0%
Identify and select topics of personal interest to expand classroom learning projects	47%	47%	0%	6%	61%	31%	5%	3%
Recommend criteria for judging success of learning projects	23%	53%	12%	12%	55%	42%	0%	3%
Establish goals and develop a plan for completing projects on time and within the scope of the assignment	41%	41%	0%	18%	72%	25%	3%	0%
Evaluate progress and quality of personal learning	29%	47%	12%	12%	61%	36%	0%	3%
Establish personal goals in pursuit of individual interests, academic requirements, and career paths	35%	47%	6%	12%	64%	33%	3%	0%

Table 29—Survey Results for Standard D The Learning Community

	Teachers				Students			
WITLS and Related Tasks	Do task easily	Do task with help	Unable to do task	Did not observe	Do task easily	Do task with help	Unable to do task	No idea what task means
Standard D The Learning Community D.8.1								
Collaborate with others to identify information needs and seek solutions	53%	41%	0%	6%	58%	33%	3%	6%
Demonstrate acceptance to new ideas and strategies from workgroup members	35%	59%	0%	6%	61%	31%	3%	5%
Determine workgroup goals and equitable distribution of individual or subgroup responsibilities and tasks	30%	41%	6%	23%	53%	39%	3%	5%
Plan for the efficient use and allocation of time	17%	65%	12%	6%	56%	33%	3%	8%
Complete the workgroup projects on time	35%	59%	0%	6%	64%	33%	3%	0%
Evaluate completed projects to determine how the workgroup could have functioned more efficiently and productively	23%	53%	6%	18%	67%	22%	8%	3%
Standard D The Learning Community D.8.2								
Return all borrowed materials	41%%	59%	0%	0%	91%	9%	0%	0%
Describe and explain the school policy on technology and network use, media borrowing, and internet access	23%	65%	0%	12%	53%	32%	15%	0%
Demonstrate responsible use of the internet and other electronic resources consistent with the school's acceptable use policy	53%	35%	0%	12%	77%	23%	0%	0%

Table 29—Survey Results for Standard D The Learning Community (continued)

	Teachers				Students			
WITLS and Related Tasks	Do task easily	Do task with help	Unable to do task	Did not observe	Do task easily	Do task with help	Unable to do task	No idea what task means
Recognize that using media and technology to defame or libel another person or group constitutes unacceptable behavior	41%	41%	6%	12%	71%	17%	6%	6%
Identify and define the consequences of violations to the school's policies on media and technology use	47%	41%	0%	12%	60%	31%	9%	0%
Recognize the need for privacy and protection of personal information	53%	41%	0%	6%	86%	14%	0%	0%
Standard D The Learning Community D.8.3								
Define the purpose of copyright and copyright law	23%	53%	12%	12%	83%	17%	0%	0%
Identify what kinds of works of authorship can by copyrighted	18%	41%	35%	6%	64%	36%	0%	0%
Explain the concept of "fair use" as it pertains to the copyright law	6%	59%	24%	11%	67%	25%	5%	3%
Recognize that the "fair use" provision may differ depending on the media format	6%	53%	29%	12%	67%	28%	3%	2%
Relate examples of copyright violations	12%	53%	18%	17%	69%	28%	3%	0%
Cite the source for works which are quoted verbatim and for pictures, graphics, and audio or video segments which are used in a product or presentation	12%	53%	18%	17%	53%	39%	8%	0%

Table 29—Survey Results for Standard D The Learning Community (continued)

	Teachers				Students			
WITLS and Related Tasks	Do task easily	Do task with help	Unable to do task	Did not observe	Do task easily	Do task with help	Unable to do task	No idea what task means
Standard D The Learning Community D.8.4								
Explain the concept of intellectual freedom	6%	41%	6%	47%	58%	23%	8%	11%
Identify examples and explain the implications of censorship in the United States and in other countries	6%	35%	12%	47%	67%	33%	0%	0%
Explain the importance of the principle of equitable access to information	0%	47%	6%	47%	47%	41%	6%	6%
Compare and contrast freedom of the press in different situations and geographic areas	0%	41%	6%	53%	64%	25%	8%	3%
Recognize that the free-flow of information contributes to an informed citizenry resulting in sound decisions for the common good	6%	29%	6%	59%	56%	28%	8%	8%