

Chapter 1 : Library Safari and iPads: Technology to Enhance Student Learning

Library makerspaces enhance student learning. This article was written by Leona Rajae on August 17th, Makerspaces have become increasingly popular additions to libraries, allowing visitors to learn and apply hands-on creative skills in tandem with traditional scholarship.

The Dadaists found this encouraging. And this made sense to the intellectual artists. Found poetry is also closely related to the pop culture of the mids and to Pop Art in that both rely on found and everyday objects. Poems Found Practically Everywhere. Two of the best known and most prolific found poets of the s and s were Bern Porter and Robert Colombo. Eliot , uses many different texts, including Wagnerian opera, Shakespearian theater, and Greek mythology. The writing of found poems can be linked to multiple learning theories to support their use in classrooms and library programming. Since most educators are familiar with these theories, only a brief description of them and their relationship to found poetry will be given. He will be aglow with a particular response. He will need to register this response, to get the particular quality of it. And he will need to reflect on it. For it will be the result of the way the work fits into his own past experience of books and life. Writing found poetry helps students construct meaning from curriculum by using class lectures, textbooks, research, novels, and primary sources to present information in new and meaningful ways. In Bloom led a group of educational psychologists in the development of a classification of levels of intellectual behavior important in learning. This taxonomy included, starting at the most basic level: In the s a new group of cognitive psychologists updated this theory for the twenty-first century and changed the taxonomy from nouns to verbs. The new taxonomy includes remembering, understanding, applying, analyzing, evaluating, and creating. Higher Order Thinking Skills While based on the work of most educational psychologists, the concept of higher order thinking skills is most often linked to Bloom and his taxonomy. Using found poetry as an instructional strategy not only helps with these higher-order thinking skills but also with the lower-level skills of rememberingâ€”which includes defining, duplicating, listing, recalling, repeating, reproducing, and statingâ€”and of understanding, which includes classifying, describing, discussing, explaining, identifying, reporting, selecting, translating, and paraphrasing. Found poems can also be used to apply information, the third stop on the pyramid. Beyond Educational Theory Going beyond educational theory and practice, generalizations can be made about the effectiveness of using found poetry as a classroom tool: Writing found poetry encourages critical thinking and creativity. Since the poet must weigh words and evaluate their meaning in context and form, found poetry requires the writer to synthesize the meaning of the primary source in such a way that word and phrase placement provides emphasis and clarification. The expository writing found in most textbooks requires readers to be able to identify key terms and academic vocabulary. The clarifying nature of found poetry lends itself well to the development of these skills. Found poetry can lead to lasting connections with the subject matter. Found poetry expands and deepens student engagement with language as it is done in collaboration with text. Found poetry can lead to improved comprehension and increased academic language acquisition. Because students who construct found poems are encouraged to examine and reflect on the language of the author, the borrowing of text leads to a form of scaffolding. This idea closely relates to constructivism in that activities need to be appropriate for the age and maturity of the students. Other psychologists such as Piaget and Bruner have their own theories of the stages of cognitive development, but most focus on the concept that students need to be physically, mentally, and emotionally ready to accomplish certain goals and tasks successfully; however, this is not accomplished independently but with the help of peers, parents, and teachers.

Chapter 2 : Understanding library impacts on student learning – In the Library with the Lead Pipe

School Library Programs Improve Student Learning is a series of advocacy brochures each designed to speak to a specific stakeholder audience within the school library community, including administrators, policymakers, parents, and teachers.

Their professor announces that today they will be joined by a guest lecturer, a senior VP from a Fortune corporation. What makes this guest lecture unique is that the students are sitting in a Nashville classroom but the guest lecturer is speaking from his home office in Estonia, via video technology. In the scene described above, Owen Professor David Owens, along with Professor Bart Victor, use video conferencing to bring an international guest speaker to their organization studies seminar. Across the University, faculty are using technology to help students master subjects from elementary and secondary school instruction to bioengineering to structural equation modeling. They are developing their own skills while making students comfortable with the technology that will help them be successful after leaving Vanderbilt. As they introduce more and more technology into the classroom, faculty are finding it raises the quality of class discussion and involves students much more deeply in their own education. Owen Management Professor David Owens uses videoconference links to bring in guest speakers and incorporates video and audio technology into most of his lectures. Psychology Professor Andy Tomarken teaches methods and statistics courses in a computer lab, allowing him to integrate traditional lecture with demonstration projects using the methods he is teaching. Peabody Professor Margaret Smithey guides her students in the preparation of multi-media classroom presentations including clips from the Internet, video, audio, and news archive footage. She has opened an e-conference for interns from her courses who want to stay in touch with their fellow students and professors, and she maintains a library of digitized video clips, taken from live and simulated classroom settings. Department of Biomedical Engineering Chair Tom Harris directs a new NSF-funded center focused on developing technology-based bioengineering teaching materials and curriculum. He is collaborating with several partners, including Peabody Professor John Bransford. What Technology Brings to the Classroom What these faculty members have in common, and what they share with many others across the campus, is a commitment to exploring the opportunities technology offers for improving the quality of classroom instruction. Professor Margaret Smithey describes how technology allows her to capitalize on unexpected turns in class discussion. I think seeing actual classroom scenarios related to their questions makes learning come alive for my students better than if I gave my opinion or told a story. When they follow me, typing in on their own computers, that facilitates their learning. There are either books that tend to be too easy or too hard or just not broad enough in scope. This not only replaced the textbook, it allowed students to spend more time focused on the lecture and less time copying formulas from the board. I think technology has improved the quality of what we can access. David Owens requires his students to do at least one group project entirely over the Internet. In this project, they have a lot to figure out about group process, what things are done best face to face, what things are done best asynchronously, what things are done best in an anonymous chat room. And they figure it out. Smithey values these pre-class assignments because they save classroom time and improve the quality of class discussion. We are able then to discuss particular class dilemmas or teaching dilemmas that everyone has watched, analyzed and reflected upon. So, we can start there and go with our class discussion rather than having to take 20 or 30 minutes of class showing the video and asking the specific questions. Students who may question how much their professors care about teaching can also see evidence of the time and trouble taken to prepare for class. Technology Brings Challenges Introducing technology into the classroom can also bring a set of challenges. First among them is finding the time needed to incorporate new technology into courses. Professor Smithey not only uses the technology herself but also requires her student to produces multi-media projects during the semester. You have to have support. There has to be some relief time to learn about the technology. Technology also changes rapidly and it takes time to keep up with technical changes that influence how equipment and software perform in the classroom. Professor Owens points to a digitized news show he purchased from CBS: Some people take notes on the computer, some

people try to get the lecture slides up on their screen so they can see them up close, some people do e-mail, surf the net, do whatever. Bringing technology into the classroom uses resources ranging from computers to classrooms to graduate assistants, and university wide coordination is essential for ensuring an effective learning environment for students. You can continue to use CDs that you have in your own library, you can continue to connect to the Internet from the classroom, but additional faculty support is necessary to take technology use to the next level of requiring our students to use technology in a way that prepares them for using it in the future classrooms. Moving Forward with Technology As the University moves towards an increasingly coordinated approach to the use of technology, several efforts are underway at Vanderbilt to determine just how technology can be used to most effectively enhance learning. Among several priorities is research into the value of technology, such as web-based education for teaching bioengineering. Well, is that right or not? And if you can begin to show major advances for some of this, then the justification for the additional investment is there. We have to know how to do it and what to do. So if we get in and do research in this center and we find out some of the mistakes and things you ought to avoid, I think that you could tailor a system that could dramatically increase effectiveness and make faculty more effective. David Owens wants to pursue his interest in virtual teams by developing a course run exclusively on the Internet. Andy Tomarken plans to continue integrating computer interaction with more traditional classroom activities. Margaret Smithey would like to use videoconference links to allow her students to observe a live classroom setting and then interview the teacher afterward, all via video. In each case, these faculty members, like many others across the University, will continue to use technology to challenge both themselves and their students.

Chapter 3 : Library makerspaces enhance student learning | CSU Libraries Network

Understanding library impacts on student learning In the Library with the Lead Pipe is pleased to welcome guest author Derek Rodriguez. Derek serves as a Program Officer with the Triangle Research Libraries Network where he supports collaborative technology initiatives within the consortium and is project manager for the TRLN Endeca Project.

This site will provide updates, timeline, and noise level regarding the renovation. All phases of the process have been intentionally collaborative, beginning with an interactive workshop hosted by the architects in July , where students, faculty and staff came together to share ideas and create a new vision for what the library should look like and be. Visioning Phase During spring , University of the Pacific engaged the CREDO higher education planning firm to assess and recommend student experiences in campus spaces. Then, in July , through a shared visioning process charrette , this firm helped Pacific student, faculty, and staff representatives reimagine the Stockton Campus Library facility. A key outcome from this exercise was a Student Academic Success Hub to co-locate student academic success and library research support services, in alignment with higher education best practices. In its fullest expression, the collaboratively envisioned facility ecosystem anticipates heightened synergies among all Stockton Campus Library occupants, including Center for Teaching and Learning professionals, to nurture student academic persistence and foster faculty teaching and research excellence. Initial charrette visioning produced four facility renovation goals, presented in alphabetical order below. Design spaces that enhance user experience of research collections, education services, digital learning commons, consultation services, and learning spaces. Co-locate library faculty and staff to further collaboration, improve work flows, increase efficiencies, and heighten impact. Create partnerships with other student academic success providers within spaces designed to catalyze collaborations through intentional adjacencies. Create and nurture purposeful interactions within the facility among library faculty and staff, Pacific students and faculty, and faculty and student service providers. Consolidate print book and journal collection to improve information discovery, access, and usage. Place welcome information, technology help, and Special Collections desks in more visible locations. Design flexible and versatile spaces that build community, foster inquiry, and enable learning. Reveal the natural beauty of the campus through intentional indoor-outdoor connections. Make learning resources and learning services in the Stockton Campus Library visible and accessible. Create an integrated service area for physical and virtual delivery of 3-city student academic support programs. Co-locate academic writing, library research, mathematics development, and peer tutoring services in a Student Academic Success Hub. Design shared teaching spaces which foster faculty exploration and development of learner-centered teaching practices and technological experimentation. Create naturally inviting, permeable spaces which inspire and nurture interdisciplinary collaboration, and support faculty individual and group work.

Chapter 4 : Digital Libraries and Education: Trends and Opportunities

This publication explains, through examples of current library programs around the United States, how libraries affect the education of children, and offers an impetus for others to embrace the challenge of providing quality library programming for children. Through these programs, libraries work.

Every week it seems a new article or book is published expressing concerns about college costs, [1] low graduation rates, and what students are learning. Graduation rates are important measures. However, stakeholders in higher education have had their eyes on a different set of metrics for many years: Department of Education raised concerns about the quality of undergraduate student learning. Unless we develop adequate instruments and generate compelling evidence libraries will be left out of important campus conversations. In this post I review current approaches to this problem and suggest new methods for addressing this challenge. The challenge of linking library use to student learning Demonstrating connections between library use and undergraduate student achievement has proven a difficult task through the years. Several authors have suggested outcomes to which academic libraries contribute such as: Those of us who have worked in academic libraries have probably observed this mechanism at work with students we have known. However, I believe relying exclusively on this measure is problematic. First, numerous factors influence retention and it can be difficult to isolate library impact on retention without extensive statistical controls. Second, retention is an aggregate student outcome; it is not a student learning outcome. Retention is an important metric in higher education and we should seek connections between library use and this measure, but it does not satisfy our need to know how libraries contribute to student learning. Grade point average Several authors have attempted to correlate student use of the library with grade point averages GPA. Charles Harrell studied many independent variables and found that GPA was not a significant predictor of library use. Webb reported on a large-scale study with a sample of over 8, students grouped by major and level of study. As Wong and Webb note, studies that use correlation as a statistical method cannot assure causal relationships between variables; they can only show an association between library use measures and GPA. Or do students who make better grades tend to use the library more? Without adequate statistical controls it is impossible to conclude library use had an impact on GPA. Also, as noted by Wong and Webb, it can be difficult to gain access to student grades to carry out this type of study. Information Literacy Outcomes Information literacy outcomes assessment is the most fully developed approach we have for demonstrating library contributions to undergraduate achievement. Broadly speaking, information literacy skills encompass competencies in locating and evaluating information sources and using information in an ethical manner. Instruction in these skills is a core offering in academic libraries and findings from Project Information Literacy suggest there is still plenty of work to do! Numerous methods have been used to assess information literacy skills including fixed-choice tests, analysis of student work, and rubrics. However, a recent review of regional accreditation standards for four-year institutions suggests there is uneven support for doing so. In part, I think this reaffirms for us that many in higher education associate information literacy outcomes with general education outcomes such as critical thinking. While it may be encouraging for information literacy outcomes to be integrated into the college curriculum, I think this poses real difficulties when we attempt to isolate library contributions to these outcomes. If information literacy and critical thinking skills are inter-related, how are we to assess one set of skills, but not the other? If information literacy skills are taught across the curriculum, when, where, and by whom should they be assessed? Where does faculty influence stop and library influence begin? Information literacy outcomes are integral to undergraduate education, but these are not the only learning outcomes that stakeholders are interested in. We should also link our efforts to the learning outcomes frameworks used in the broader academic enterprise. Broadening our perspective will provide a better return on our assessment dollar. Where to begin We can improve our ability to detect library impact on important student learning outcomes by carefully choosing our units of observation. Fortunately we can look to the literature of higher education assessment for clues. Capstone experiences and upper level coursework within the academic major seem to fit the bill for four year institutions. The academic major Students majoring in the arts and humanities, the

sciences, and the social sciences acquire different bodies of knowledge and learn different analytical techniques. We also know that learning activities, reward structures, and norming influences vary by discipline. This suggests the academic major plays a significant role in shaping expectations for student learning outcomes and the pathways by which they are achieved. Our assessment tools should be sensitive to these differences. First, there is ample evidence that the time and energy students devote to college is directly related to achieving desired learning outcomes. Furthermore, students exposed to high-impact practices such as capstone experiences are more likely to engage in higher order, integrative, and reflective thinking activities. Speaking the language of learning outcomes Assessing information use during upper-level and capstone coursework in the academic major is only part of the puzzle. We also need to link library use to student learning outcomes that are meaningful to administrators and policy-makers. These outcomes are applicable in all fields and highly valued by potential employers. For instance, one would expect students majoring in chemistry, music, or economics to acquire different skills and competencies. A process called Tuning is intended to generate a common language for communicating these discipline-specific outcomes. Generic second cycle or bachelor degree level learning expectations as defined by the European Tuning process are noted below. Recent work funded by the Lumina Foundation has replicated this work in three states to test its feasibility in the U. The VALUE rubrics are currently being evaluated in several studies [34] and colleges and universities have begun using them internally to articulate and assess student learning outcomes. The protocol consists of a student survey and a curriculum mapping process for connecting library use to locally defined learning outcomes and the VALUE and Tuning frameworks discussed above. Initially developed using qualitative methods [38] the protocol has been converted to survey form and is undergoing testing during I illustrate how it works with a few results from a recent study. A pilot project was conducted during the spring of with undergraduate history majors at two institutions in the U. Faculty members provided syllabi and rubrics regarding learning objectives associated with researching and writing a research paper in upper-level and capstone history courses. History majors completed the online ULI survey after completing their papers. First, students identified the types of library resources, services, and facilities they used during work on their research papers, including: Electronic resources, such as the library catalog, e-resources and databases, digitized primary sources, and research guides. Traditional resources, such as books, archives, and micro-formats. Services, such as reference, instruction, research consultations, and interlibrary loan. Facilities and equipment, such as individual and group study space, computers, and printers. The forty-one students who participated in the pilot project collectively reported types of library use during their capstone projects ranging from e-journals, digitized primary sources, books, archives, research consultations, and study space. Electronic resource use dominated, but traditional resources, services, and facilities made a strong showing. Students then identified the most important e-resource, traditional resource, service, and library facility for their projects and when each was found most useful. These services included asking reference questions, library instruction, research consultations, and interlibrary loan. These data help link library use to learning outcomes associated with capstone assignments and to the VALUE and Tuning frameworks. Students reported next on helpful or problematic aspects of library use. For instance, students at both study sites extolled the convenience of electronic resources and the virtues of interlibrary loan, while several complained of inadequate quiet study space and library hours. A series of open-ended questions ask about a challenge the students faced during the project. Almost fifty percent of the student-reported challenges were related to finding and evaluating sources and almost as many were related to managing the scope of the paper and issues with writing. Open ended questions also elicit powerful stories of impact. I may have been able to get by with just the books I checked out and Google searching, but those databases, JSTOR specifically, really helped me. Using both quantitative and qualitative methods helps us understand how and why libraries support students when the stakes are highest. Authentic user stories coupled with links between library use and student learning outcomes serve as rich evidence of library impact to support both advocacy efforts and internal improvements. Future uses The Understanding Library Impacts protocol is not designed to assess student learning; teaching faculty and assessment professionals fulfill this role. The protocol is intended to link library use with existing assessment frameworks. ULI results can then be used in concert with other assessment data enabling new partnerships

with teaching faculty and assessment professionals. Understanding Library Impacts results may also integrate with third-party assessment management systems AMS. As Megan Oakleaf noted in the Value of Academic Libraries Report , integrating library assessment data with AMSs allows the library to aggregate data from multiple assessments gathered across the library and generate reports linking library use to a variety of outcomes important to the parent institution. Doing so will bring the library into campus-wide conversations about support for student learning. Thanks to Ellie Collier, Hilary Davis, and Diane Harvey for their comments and suggestions that helped shape and improve this post. Thanks also to Hilary and Brett Bonfield for their help preparing the post for publication. I also want to thank the librarians, faculty members, and students at the study sites for their support and participation in this pilot study. From to , published tuition and fees at public 4-year colleges and universities increased at an annual average rate of 4. Trends in college pricing , [http:](http://) Limited Learning on College Campuses. University of Chicago Press, The Economic Value of College Majors. College Return on Investment. A Test of Leadership: Charting the Future of U. Created to respond to demands for transparency about student learning outcomes from the Spellings Commission, participating VSA institutions agree to use standard assessments and produce a publicly available College Portrait which provides data in three areas: Voluntary System of Accountability, , [http:](http://) Miller, The Voluntary System of Accountability: Association of College and Research Libraries. Draft Standards for libraries in higher education, A consideration of issues and research methodologies. Matthews, Library Assessment in Higher Education. Kramer, The college library and the drop-out.

Chapter 5 : School Libraries Impact Studies – Library Research Service

Research about educational trends and pedagogical models shows the significant difference effective school library services can make on student literacy and learning outcomes. The research findings illustrate the positive impact of dynamic, inclusive library services and environments – physical.

Makerspaces have become increasingly popular additions to libraries, allowing visitors to learn and apply hands-on creative skills in tandem with traditional scholarship. Several CSU campus libraries have developed maker spaces, adopting maker culture, which values creation as an alternative to consumption. A light box, built in build IT, can now be used by other makers to show off masterpieces. Benefits of a makerspace From virtual reality equipment to advanced digital editing software, students have access to explore and utilize a variety of tools and platforms. Even in their infancy, the two makerspaces at Love and Oviatt libraries have given students opportunities to grow beyond what they learn in the classroom. Campus receptiveness Building a community is at the core of the makerspace ethos, and Leininger believes the makerspace she coordinates has been successful at not only attracting students but cultivating a community. The recording studio is pretty much occupied all the time. Student involvement Students excited to learn and share new skills become so highly involved with these spaces that makerspaces are able to organically foster student communities and connections, Leininger explained. Oftentimes, students have the opportunity to play larger roles within their makerspace community as student assistants. Future plans and opportunities As library makerspace communities grow, staff are actively planning to provide students with greater access to more maker tools and nurture even more creativity across their campuses. Here are some of the exciting initiatives being implemented. Students use this lab for high-end video and audio editing, animation and game development 3D Printing: Converting laptop storage cart into a convertible maker space. It will include the kits listed above, soldering kits, servo kits and a mini 3d printer. Monthly events, ranging from Arduino and 3D printing to quilling and pumpkin carving. Sonoma State, launched January Innovation Lab: The pilot was deemed successful, and SCI will be repeated in the fall of Additions to the lab for fall may include a 3D Scanner and Raspberry Pi computing. At time of publication, still more programs are taking shape across the state. Cal Poly Pomona University Library has allocated a section of their building for a maker space with plans to hire staff. At Chico State, the Meriam Library plans to establish a maker space in the future, and the Sacramento State University Library is in the process of raising funds. CSU libraries are operationalizing maker culture in a variety of styles, formats, and programs, but their goals remain consistent:

Chapter 6 : Enhance student learning | About UBC Library

Libraries enhance student learning: a guidebook of innovative library programs for youth / by Shirley Steele and Amanda Heim.

This article, originally posted in , makes a point worth revisiting about the importance of school libraries and librarians. Last month, site-based management teams at 11 elementary schools in Kalamazoo, Michigan, chose to cut their budgets for the school year by eliminating the position of school librarian. Did they make the right decision? A new study indicates that what they made was a big mistake! Results of a recent study show that students at schools with strong media centers scored significantly higher on standardized tests than students at schools with less-well-equipped and staffed libraries. The results of the study, which examined the relationship between the Colorado Student Assessment Program CSAP and certain characteristics of school media centers, replicated those of earlier studies conducted in Colorado, Pennsylvania, and Alaska. Those results, detailed in the report *How School Librarians Help Kids Achieve Standards* , revealed that statistically significant CSAP increases were related to five characteristics of school media centers: Test scores increased in direct proportion to the ratio of students to library media center staff and library media center resources. Test scores increased in schools in which networked computers linked library media centers to classrooms and other instructional areas. The percentage of increase was related to the number of computers and the extent to which those computers provided access to library resources, informational databases, and the World Wide Web. Test score increases were directly related to the degree to which library media specialists and teachers worked together and to the amount of time media specialists spent training teachers to use information technology. Test scores increased when students had greater freedom to visit the library media center on their own and to use media center resources at home. Although no direct correlation was found between test scores and the degree of leadership shown by the library media specialist, leadership involvement was found to result in greater collaboration between teachers and media specialists. Greater collaboration resulted in higher test scores. The study also indicated that collaboration between teachers and librarians is more likely when the library media specialist is a school leader. Almost every school has a media center. It was only in those schools in which library staffing was sufficient to allow for the active participation of library media specialists in curriculum development, student instruction, and teacher education that test scores increased. They can teach teachers how to use informational technology to access additional resources. They can teach information literacy to both teachers and students. They can provide design and support to the curriculum. Eliminating professional school librarians for the purpose of increasing teacher-student ratios in classrooms, for example, handicaps every teacher and is extremely counterproductive. Fund library media center programs sufficiently to allow for adequate professional and support staff, information resources, and information technology. Institute policies and practices that encourage library media specialists to assume positions of leadership in their schools. Network technology to make media center resources available throughout the school. Institute flexible scheduling wherever possible to allow maximum student access to library media centers. In addition, according to Lance, principals should visibly support library media specialists. The report revealed that 11 percent of secondary school students and 40 percent of elementary school students attended schools that lacked a full-time, state-certified librarian. This latest study, for example, found that professionally trained librarians run only about half the elementary school libraries in Colorado. At a time when school systems are allocating more and more money to technology, it appears that not enough attention is being paid to the important role library media centers and library media specialists play in determining the value of those resources. According to Lance, "The people who think that computers can create a library-less society are the same people who thought computers would create a paperless society. The value of computer network technology is directly related to the extent to which it provides access to all library media center resources.

This publication explains, through examples of current library programs around the United States, how libraries affect the education of children, and offers an impetus for others to embrace the.

Video of The Changing Role of School Librarians Courtesy Vancouver Public Schools Schools with a strong school library program and a certified school librarian ensure their students have the best chance to succeed. More than 60 education and library research studies have produced clear evidence that school library programs staffed by qualified school librarians have a positive impact on student academic achievement. These studies clearly demonstrate that strong school library programs help all students do better academically, even when other school variables are considered. School library programs foster critical thinking, providing students with the skills they need to analyze, form, and communicate ideas in compelling ways. School libraries are places of opportunity. They are learning hubs and homework help centers where students use technology and the latest information resources, preparing them to succeed in our global, competitive economy and the ever-evolving workplace. Strong school library programs instill confidence in reading in multiple formats, which is fundamental to learning, personal growth and enjoyment. School libraries foster a safe and nurturing climate during the day and before and after school. They are often the one place in the school that is open to all students, and where a school librarian cares and can support students across grade levels and subject matter. Certified school librarians make the whole school more effective. They teach students how to learn and help teachers drive student success. School librarians work with every student in the school, teaching them to think critically, providing the resources and support learners need in school and beyond, and nurturing their creativity. They are essential partners for all teachers, providing print and digital materials that meet diverse needs and collaborating to deepen student learning. They are leaders in the school, helping to develop curriculum and representing the learning needs of all students and teachers. School librarians connect other educators to current trends and resources for teaching and learning. For videos about impact studies and their results go here. To read more about results of impact studies, go here. For a summary of the studies, go here. School Libraries Infographic Download and share this document with principals, administrators, and other parents. This new digital magazine produced by AASL in partnership with American Libraries, is designed to be shared with parents, colleagues, administration, and policymakers. An initiative of the American Library Association.

Chapter 8 : E-libraries to enhance students learning - The National

Note: Citations are based on reference standards. However, formatting rules can vary widely between applications and fields of interest or study. The specific requirements or preferences of your reviewing publisher, classroom teacher, institution or organization should be applied.

National Strong school libraries build strong students This resource compiles key points and quotations from numerous other sources that address the link between student achievement and school libraries. Strong school libraries build strong students [Infographic]. The blog post argues that students are shortchanged when they do not have access to fully-operational school libraries and the expertise provided by school librarians. Libraries tell our story [Web log post]. The study found that schools with higher and more stable staffing levels generally had higher proficiency rates. School librarian staffing levels and student achievement as represented in Kansas Annual Yearly Progress data. School Library Research, 15 , Retrieved from ERIC database: Full-time school librarians linked to higher student reading scores. Hire a full-time librarian This article briefly addresses findings by the Library Research Service that 45 percent of students in grades three through ten increased their CSAP test scores over the course of a year, compared with just 29 percent of students who did not have a school librarian at their school. The resource also asserts that library aides and volunteers cannot substitute for school librarians, since they likely do not possess the time or the requisite skills for the role. Want better reading scores? Hire a full-time librarian. Retrieved from Care 2 Make a Difference website: Connecting British Columbia Canada school libraries and student achievement: A comparison of higher and lower performing schools with similar overall funding. School Libraries Worldwide, 17 1 , A graduate class project This paper serves as a comprehensive index of the most important impact studies conducted in the United States up to The paper contains a bibliography for the studies, and also discusses separately the following attributes of school libraries, their effects, and which studies addressed them: School library research summarized: A graduate class project. Retrieved from Mansfield University website: Impact of school libraries on student achievement Similar to other reports, this document summarizes well-known impact studies, which examined the relationships between student achievement and things like student access and teacher-librarian collaboration. Impact of school libraries on student achievement [Preliminary report]. Library staffing benefits Latino student achievement. CSLA Journal, 34 1 , Reading workshops are most effective with a teacher-librarian. Teacher Librarian, 37 5 , Phase I This document contains the results of the first phase of a three-part impact study conducted in New York, which examined the influence of school libraries on technology use, the relationship between principals and school libraries, and the level of service to students with disabilities. School Library Media Research, 12, 2. Phase IIâ€™in-depth study This document discusses the findings of the second phase of a three-part impact study conducted on more than 1, students, teachers, and library media specialists in 47 schools. During this part of the study, participants answered an in-depth survey, which produced these findings: School Library Media Research, A position paper of the Center for International Scholarship in School Libraries This position paper summarizes the research conducted on the impact of school libraries on student achievement. The paper emphasizes the importance of inquiry, reading, and information literacy in young people, at school and at home. School libraries, now more than ever: Chief among these is the development of a strong school library media program. The power of the media specialist to improve academic achievement and strengthen at-risk students. Quality libraries produce quality learners This article presents the findings of a study conducted to determine the perceptions teachers have about libraries. Quality libraries produce quality learners. Journal of Quality and Technology Management, 4 2 , A review of the literature This article examines existing literature on the impact made by school libraries on student achievement, as well as the effect of this literature on school-library advocacy. The article asserts that despite the amount of literature on the positive effects of school libraries, little, if any, development has been made in this area of librarianship. The impact of school library services on student achievement and the implications for advocacy: A review of the literature. Access, 22 4 , Also, the book makes recommendations on how school libraries should serve their students, especially in developing 21st

century literacy skills. School reform and the school library media specialist. Facts at a glance! Student achievement and the school library media program [Fact sheet]. Retrieved from Library Research Service website: A survey conducted in the schools found that more students read for fun than previously, students read more on their own time, they conducted deeper inquiry into subject areas, and their reading and language skills improved. New York Life Foundation. Retrieved from Issue Lab website: Department of Public Instruction, State of Wisconsin. Student learning through Wisconsin school libraries: Key study findings [Summary]. Among other things, the students claimed that the library helped them complete their assignments on time, helped them work more efficiently, took the stress out of learning, and helped them think more about their surrounding world. Observations of school library impact at two rural Ugandan schools. Student learning through Ohio school libraries, introduction: School Libraries Worldwide, 11 1 , The study concluded that effective school libraries are both informational and transformational—that is, they lead students to use, create, and disseminate knowledge. Student learning through Ohio school libraries, part 1: How effective school libraries help students. Heart of the school. High school librarians make the difference This journal article discusses the findings of a study on the academic success of students in college. The study focused on students from three different California high schools—only one of which had a library media program—and found that the students who came from the high school with a library had much higher levels of achievement. High school librarians make the difference. The Journal of Academic Librarianship, 30 3 , Retrieved from Academic Search Complete database. The author mentions donations from various parties, but argues that donations to buy books are not enough—there needs to be long-term commitment to ensuring the employment of school librarians. Locking up a world of ideas: American Association of School Librarians. Your school library media program and No Child Left Behind. A systems approach to research and best practice This book examines precisely what factors—school-related and student-related—influence student achievement. Also, the resource presents a thorough literature review of past research on the topic of school library media programs and their impact on student achievement. Student success and library media programs: A systems approach to research and best practice. Also, the brochure includes anecdotes from two librarians about the positive impacts of their libraries. The impact of Michigan school librarians on academic achievement: Kids who have libraries succeed [Brochure]. Retrieved from State of Michigan website: The impact of school library media programs on academic achievement of U. How school librarians leave no child behind: School Libraries in Canada, 22 2 , The author asserts that principals determine the level of collaboration between teachers and school librarians, how school librarians are embedded into the curriculum, and whether librarians are appointed to leadership positions where they may address issues pertinent to school libraries. Why should principals support school libraries? Quality library media programs affect academic achievement In this article from , Keith Curry Lance, former director of LRS, addresses the amount of research conducted on the impact of school libraries on student achievement, and summarizes the common findings. Proof of the power: Quality library media programs affect academic achievement. Recent research on the impact of school library media programs on the academic achievement of U. Strong libraries improve student achievement. There is a relationship between library media program expenditures and student test performance; 2. Library media specialists who play an instructional role also affect student achievement. The impact of school library media centers on academic achievement. The study looked at 8 schools and more than students, and found that the best school libraries are allocated adequate funding and regard their teacher-librarians as key teaching staff members. Exemplary school libraries in Ontario. School libraries and student achievement in Ontario.

Chapter 9 : AASL Advocacy Brochures | American Association of School Librarians (AASL)

The library team provides the foundation for student learning. "The most important thing a strong library program can have is a full-time certified librarian with support staff.

Digital libraries and digital learning environments Digital libraries seem, no, are natural complements to digital learning environments. They are able to integrate the freely available information on the web with the more formal literature for which increasingly consortium licenses on electronic versions are arranged with publishers. These licenses enhance and replace traditional collection development policies. Digital libraries facilitate time and place independent information services for students, needed especially if active learning styles become more commonplace [Barnard , Beagle]. Much work done over the past decade in developing digital libraries will have an important pay-off for educational innovation. Two approaches in this respect can be identified. INSPIRAL is a research project in England that investigates issues involved in linking virtual or digital or managed learning environments with digital libraries. Its point of departure seems to be how teaching staff can best be supported when designing digital learning environments and enriching these environments with resources available in digital libraries. This tailor-made approach is very much apparent in the ResIDE project where the focus is on the teachers and their courses. This model can be seen as analogous to the work of reference librarians putting together reserve collections to support courses. Another approach, apparently more popular in the United States, has a different, more macro way of looking at digital library support for learning environments and concentrates on learning resources in general. This program seeks to bring together a vast, centralized collection of learning resources supporting all possible kinds of education, ranging from K to graduate and lifelong learning, into one big library for the nation -- and even beyond. To libraries and librarians, the NSDL approach seems more threatening; however, I think in both options there will still be a need for library staff to support educators with respect to the selection of adequate resources for a given course. Librarians pursuing this aspect are well advised to learn more about the standards e. The issue here is that instructional content should be easily transferable from one platform to another. Related issues are integration with administrative systems and authentication. Donald Beagle [Beagle] warns that another, related question, viz. The main problem seems to be managerial short-sightedness. The point, of course, is that this view fails to incorporate the advantages of digital libraries, which are natural complements to digital learning environments. Digital portfolios Digital portfolios are new tools for student assessment and they are more than that as well. Initially, digital portfolios were developed as an alternative way of assessing student progress, with more emphasis on the learning process and the material results a student achieves throughout a course of study. By showing material results, the student can demonstrate that certain competencies have been acquired. At the same time, as a personal tool [Tillema] the portfolio offers students the ability to closely monitor their own progress and to set new learning goals in the planning of their education. Digital portfolios work especially well in situations where students work with assignments to solve real-life problems and are free to manage their own learning process. Since the portfolios contain material results, these results might also be of interest to future students on which to build, much in the same way as the information chain works in scholarly work. By taking a knowledge management approach to digital portfolios, these results can be shared over the Internet or, more likely, the intranet. This implies a new task for the library in the management and indexing of these student portfolios in such a way that they too can be integrated with other information resources offered by the library. In this sense, digital portfolios are an extension of the first domain identified -- digital libraries and digital learning environments -- but now include the intranet. The emphasis here is on the institution as a knowledge organization, and the integration of that knowledge with other information resources. Information literacy Adding digital portfolios to the ever increasing amount of information available leads to a third domain in which libraries can play a more active role in support of educational innovation: The concept of information literacy can be traced back to the s and was originally connected to democratic ideals. Throughout the years, the view of information literacy has evolved towards a more technical one and has been connected to the development of the information society [Webber and Johnston],

a term which is now being replaced by the notion of the knowledge economy. A well-known definition of information literacy is the one developed by the American Library Association [ALA]: The information literate person, therefore, is empowered for effective decision making, freedom of choice, and full participation in a democratic society. Sometimes, correct citing is also seen as a crucial competency. In addition, information literacy is often mentioned together with the concept of critical thinking skills. Notice also how information literacy is conceptually closely linked to terms like "active learning", "problem-based learning", "student-centered learning", "lifelong learning", and "learning to learn". It is impossible to imagine an information illiterate knowledge worker. Hannelore Rader [Rader] remarked that "[l]ibrarians are uniquely qualified to assume an active role in the new teaching environment because of their skills in collecting, evaluating, organizing and providing access to information. Increasingly, librarians will be involved in teaching classes --sometimes in close cooperation with faculty, sometimes in general skills courses. An important trend in the last few years is that library staffs are developing internet-based instruction modules. Collaborative course design Of course, librarians who are building expertise in developing web-based course material can also use this expertise in a more broad sense. The idea here is that -- in contrast with the traditional situation in which teaching staff develops courses on their own, and choose the way they teach and assess student progress the teacher as king of his class -- learning environments of the future will be designed by multi-disciplinary teams of experts. Experts in developing course material, programmers, graphical designers, and experts in assessment, all will work together in designing rich modularized learning environments that offer alternative learning routes to different types of students. However, many learning environments build on a model for which origins can be traced back to early distance education. In this model, students are given a "box" containing all the material for a course they need to master, so-called self-contained courses. An approach that, of course, made sense in traditional distance education where library support has always been a rather cumbersome issue [Unwin, Stephens and Bolton]. Alan Bundy [Bundy] remarks that digital learning environments lead some educators to use the technology to gain even more control over students. But if the emphasis is on developing competencies needed to become knowledge workers, and if work and learning are more interconnected, one might expect that learning environments will become more open. Students in such a model are expected to go beyond the primary learning materials offered by teaching staff and are expected to explore independently other information sources as well. Again, if more active learning styles become the norm, then one can foresee a role for librarians in the multi-disciplinary teams developing learning environments such as those mentioned above. Librarians can add links to the resources -- print and electronic -- available in their collections and on the web. They can explain how information resources in a particular subject field are organized and how students can find their way in subject areas that are relatively new to them. The module was developed in close cooperation between legal scholars and library staff. Lawyers explain the technical and legal aspects of the decision making process, and library staff show how to trace the many documents produced in this process in the jungle of European Union databases and web sites. Together they have built a learning environment that individually they could not have produced easily. The DEsite model shows the synergy that is possible, and the result is a rich learning environment for students and an electronic reference tool for lawyers active in this field. Physical and virtual learning environments Techno-enthusiasts tell us that virtual learning environments will suffice to satisfy the needs of future students. This picture of a world of students and knowledge workers lonely behind their desktops denies the important social aspects of learning and working. John Seely Brown and Paul Duguid [Brown and Duguid] remind us of the importance of the social context in which people give meaning to information and refer to real, not virtual! Noriko Hara and Rob Kling studied student frustrations with purely web-based learning environments [Hara and Kling] and the results of their study reinforce this point. Students encounter many technical problems and miss the direct feedback inherent to class room situations where even the body language of the teacher gives important clues. Next to virtual learning environments, the physical learning environment will remain of importance too, and the two will probably coexist for generations to come. The physical library is a learning environment ideally suited to support more active learning styles. She found that students made use of the library much earlier in their training, and the use was more intensive and more equally spread over the

year. If we look at recent developments in library architecture in the United States [American Libraries] some trends in library functions become more visible. There is a clear trend towards more client-centered buildings instead of the collection-centered ones of the past. Some libraries experiment with lounge-like facilities and offer pleasant reading rooms, not just for individuals but also for groups. Integration of libraries with computing facilities is a clear trend, one that will present even more of a challenge now that multimedia computers are becoming the norm. Increasingly, the term "learning environment" or "learning center" is used for this kind of facility. It shows that, next to digital learning environments, there is also a need for physical learning environments where students and teachers find a wealth of resources and facilities, and where they can work, on their own or together, in order to learn and teach. Implications for library staff and organization

The linking of digital libraries to digital learning environments, standards issues, knowledge-sharing, support in education, more active support of educational processes, classroom instruction, development of course modules in multi disciplinary teams, rethinking and redesigning library buildings-- all these issues have obviously profound implications for library personnel. Richard Biddiscombe [Biddiscombe] sees a strong need for the library itself to become a learning organization. We might add that, now more than ever, lifelong learning becomes important for library staff. Hannelore Rader [Rader], a pioneer in this field, emphasizes leadership and innovative attitude of library personnel. She stresses the importance of developing partnerships between library staff and faculty. This requires a proactive approach: In her view, library staffs have an advantage: Patricia Iannuzzi [Iannuzzi] reported on developing library - faculty relationships at Florida International University. Organizational culture is the main obstacle in developing these relationships, and it takes time to change this culture. At Florida International University, the introduction of information literacy was seen as an opportunity for rethinking the role of the library. Iannuzzi warns that librarians think too much about how to integrate information literacy in new initiatives, instead of wondering how information literacy can help these initiatives to succeed. Finally she gives some practical advice: It can be expected that more active library support of educational innovation will give rise to new types of jobs. Most of the time about four days a week , these specialists work with faculty in their offices and classes, the remaining day of the week is used to exchange experiences. On a larger scale, there could be organizational consequences. Much in the same way that digital library projects have led to closer cooperation, and sometimes mergers, between libraries and computer centers, educational innovation leads to closer cooperation between libraries, computer centers and educational support units. Another option is to explore the possibilities of networked organizations in order to mobilize and combine the many different competencies spread throughout higher education institutions. Institutional and library strategies

This article has sketched interesting challenges for librarians wishing to pursue a more active role in educational innovation. An important final question is whether there are organizational and strategic preconditions that must be met in order to succeed. In their reports on the America Library Power project, Carol Collier Kuhltau [Kuhltau], and Norman Webb and Carol Doll [Webb and Doll] stress that the most important condition is that there is a basic agreement between administrators, teachers and library staff on what kind of education an institution wants to give. Those schools advocating more active learning styles will benefit especially from increased cooperation. The pay-off for students is an increase in information literacy and critical thinking skills, core competencies for knowledge workers. Even if there is no shared institutional vision on education, there is no excuse for librarians to wait and see. It just implies that they have to find alternative routes. One nice thing about networked organizations is that one can build them without the consent of administrators. Librarians should talk with students and find out in which ways librarians can best accommodate student learning. Librarians can start small and develop ideas and projects in close cooperation with their patrons. Librarians have, and can develop further, unique skills to support educational innovation and they have the opportunity to act as role models within their institutions.