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“The ultimate goal for the school library media specialist is an active school library media program where collaboration with teachers is accepted and information literacy skills are fully incorporated throughout the curriculum” (Doll, 2005, p. 31).

The Work of the Teacher-Librarian

Teacher-librarians in secondary schools are usually known for their work in managing book collections, supervising spaces, and purchasing resources. To those who know them slightly better, they are recognized for their efforts in raising literacy levels and improving reading skills. To those who know them well, they are also practiced collaborators in inquiry-based learning, experts in information literacy, web awareness, information technology, teaching research skills, and advocates for intellectual freedom. In my exploration through library research conducted and reported at the high school or secondary school level, teacher-librarians are almost always cooperating with teachers of academic subjects including Humanities or Social Studies and English, and to a lesser degree Science. Presumably these are the usual classes which commonly engage in reading, writing and research, and which frequent the library.

Yet, high schools are comprised of more than academic subjects, and most students find vocations outside the university route. What of the vocational or technical students and their teachers? What kind of collaborative experiences are happening between the teachers of vocational or technical students and the teacher-librarian? This capping paper will focus on teacher-librarian collaboration with high school vocational classes, examine personal

teaching practice, and turn a spotlight on the contributions a teacher-librarian can make to reach teaching and learning goals particularly in vocational arenas.

Clarification of Terms Academic and Vocational

The term “academic” classes as used in this paper shall be in contrast to “vocational” classes. Usually academic classes are those thought to be more intellectual and scholarly in nature—the “required” courses from the high school diploma mandate. “Vocational” courses sometimes referred to as option, shop, occupations, trade, non-academic, Career and Technology Studies (CTS), or technical classes, are more hands-on and are generally accepted as of secondary importance. For the purposes of common understanding, vocational classes shall be thought to directly teach a skill or trade which might lead to employment not gained through the university route. At the high school level, vocational classes would include subjects such as building construction, automotive repair, hair care, commercial cooking, home economics, auto body, welding, horticulture, human care, office services, etc. Here, the word “vocational” shall be used throughout, with the understanding that it encompasses all these concepts.

My Teaching Journey

For most of my teaching years, I was a stay-at-home mom who worked part-time teaching academic upgrading to adults. My students were adults who simply had not completed their high school diplomas as teenagers. Without a high school diploma they were excluded from applying to certain places of employment including the public civil service and many union positions. Without the qualifications to get better paying jobs and without a trade, they were working at low paying jobs, or not working at all. “When students drop out of school, their chances of obtaining employment which will sustain a comfortable

lifestyle drastically declines” (Czubaj, 1995, ¶ 4). Often their lives were difficult and poor, and I absolutely admired the spirit which brought them to class to acquire literacy skills or ultimately that elusive high school diploma. Tired as they were, they were working to improve their lives. As adults the obstacles were far more difficult than they would have been as teens. Instead of having skills at the grade 10 or 11 level where they left off when they dropped out of school, their actual skills tested at much lower levels, and that is where they had to start. Since their jobs were less skilled, the pay was lower and they had little to no disposable income, and many times they were on social assistance. In addition, as adults they usually had home and family responsibilities and could not concentrate singly on school work. I’ve seen the challenges simply NOT having a high school education can create.

In 1995, I left a full-time teaching position to stay at home with a new baby. For the next few years I was able to work from my home as a graphic designer and operations manager for my husband’s home-based business and by 2001 had taught very little for about five years. I kept a teaching application open and active with my local school board simply by contacting them once a year. Though not seriously looking for work, I knew that at some point I would like to return to the classroom. One ordinary day I got a call from my one remaining friend with our school board, wondering if she could entice me out of our basement place of work and back to teaching even if just for one semester. People don’t get teaching jobs in this manner, and I felt humbled by the offer as though this was a divinely-appointed position. The thought of teaching again was hugely appealing, partly as a change and partly because we had not had any health benefits for five years and our teeth needed fixing. About three minutes later I had agreed to become their part-time resource teacher at

an unknown high school, for one semester. It turned out this was anything but a “normal” high school.

This school was and is a vocational high school. These kids are not going to university. Here job skills are every bit as, or more, important than English and Science. This school takes students who have not been successful in other high schools and have a higher possibility than usual of failure. Absenteeism is a chronic problem and dropout rates are higher than desirable. In ten or twenty or forty years, students who dropped out could well become those adults I had so wanted to see succeed in those upgrading classes I had taught.

Possibilities

At the end of that first semester, my principal must have approved of something I did because he called me into his office and wondered if I would like to be the teacher-librarian at the school. Having a teacher-librarian had been identified by the school as a desirable goal for school improvement. I laughed, thinking he was joking, as I had never heard of the position of teacher-librarian and had no idea how to be one. He wasn't joking! I agreed to take a part-time position, LOVED it, and discovered I had an ideal mix of passion to see people succeed, past teaching and curriculum development experience, an all-inclusive perspective, literacy and multi-tasking skills, and interest in librarianship.

After six years in one of those rare vocational high schools and at the completion of my Master of Education degree in teacher-librarianship, my heart and passion seems to keep coming back to the concept of how best to promote teaching and learning with teachers and students in all areas, including vocational courses. The over-arching questions for me are framed around: Can a teacher-librarian work with a vocational teacher in the same way as

with an academic teacher? What outcomes could/should be expected? Is there a place for collaboration beyond academic subjects? How could collaboration with a teacher-librarian enrich vocational curriculum? What does the research say about teacher-librarian collaboration in vocational areas?

I have a keen interest in working with all teachers and all students, and in seeing vocational classes widen their range of excellence to include some of those skills generally ascribed to academic classes. In most high schools, there are many more academic teachers than vocational teachers. In this vocational school, fully half of the teachers were teaching vocational classes. If a teacher-librarian's role is to work with only academic teachers, then I would have excluded half the teachers at the school. I passionately believe life-long learning and information literacy skills should be developed in all our students and that those skills need to be reinforced in a variety of subject areas. There had to be a way to work with all teachers. But how?

On one level, I continuously conduct experiments in my own practice. If I could find ways to work with these vocational teachers, what would that look like? Would it look the same or different from working with an academic teacher? Were the skills I believed in as a teacher-librarian important and universal whether the student was studying carpentry or English?

The Paper

After a brief introduction where I look at the skills I wish our high school graduates to possess upon graduation, I will glance at the programs of study for vocational courses in Alberta and examine literature linking that rationale to information literacy skills and the realm of expertise of the teacher-librarian. This will aid in developing a clearer

understanding of current research and practice that can inform my own understandings and process regarding working with vocational classes. I will then relate this literature to my experiences of collaborating with a Human Care teacher, and offer this one small example of collaboration as a model to demonstrate that it is not only possible, but hugely beneficial to achieving information literacy goals for teacher-librarians to work collaboratively with *all* teachers.

The purpose in writing this paper is to encourage teacher-librarians to reach out to the non-academic students and their teachers, and conversely for the teachers of vocational students to seek out and collaborate with their teacher-librarian. To this end, I will also suggest other possibilities for teacher-librarian collaboration with vocational teachers. What should result is an exploration of new dimensions to vocational classes where vocational curriculum may go beyond learning a craft or skill to also include some higher order thinking, information literacy, potential cross-curricular possibilities, and wider learning communities, resulting in deeper levels of teaching and learning in a high school.

LITERATURE REVIEW

Information Literacy for All?

There are a substantial number of initiatives and standards aimed at defining the knowledge and employability skills 21st century learners should possess in order to successfully enter the job market. These skills go far beyond acquiring proficiency in core academics, and acquiring “knowledge.” In a world of rapid change, all graduates must be:

critical thinkers, problem solvers and effective communicators who are proficient in both core subjects and new, 21st century content and skills. These 21st century skills include learning and thinking skills, information and communications technology

literacy skills, and life skills. Twenty-first century skills are in demand for all students, no matter what their future plans—and they will have an enormous impact on students' prospects. (Partnership for 21st Century Skills, 2006, ¶ 3)

What are employers looking for in their new employees? Some skills are less concrete as heard in Donham's (2007) statement, "Today's graduates must be learners as well" (¶ 3). Basic job skills "like attendance, timeliness, and work ethic" (Anonymous, 2007, ¶ 4) are important. In meeting with business people, Lovejoy (2000, ¶ 7) lists three major areas desired in a skilled workforce, the first of which is strong academic and thinking skills. Second, they need strong technical skills in their field, and third they need employability skills such as the ability to communicate effectively and work in teams. These are skills both academic and vocational students need to have the opportunity to acquire. Ball (2005) further values vocational education when he clearly sets out a definite link between academic and vocational education. Stressing the importance of vocational education, he concludes "career and technical education contributes directly to the academic success of students" (¶ 25).

Vocational Studies

What do provincial programs of study say about vocational courses? An examination of Alberta Education documents for Career and Technology Studies, which encompasses our definition of vocational, shows similar themes and threads across the strands. To choose one example, the Construction Technology Program Rationale and Philosophy document from 1997 to present, speaks of CTS students building skills they can apply in their everyday lives. They are to be "confident in their ability to respond to change", and "make decisions" (p. 1).

Regardless of the particular area of study chosen, students in CTS will:

- develop skills that can be applied in their daily lives, now and in the future
- refine career-planning skills
- develop technology-related skills
- enhance employability skills
- apply and reinforce learning developed in other subject areas. (p. 1)

Program General Outcomes go beyond basic knowledge of the vocational program, and includes items in their list such as “use technology effectively”, “apply...decision-making and problem-solving strategies”, and maintain “high standards of ethics” (p. 2). These certainly are areas where teacher-librarians are specialists, as they encourage the integration of technology, the development of information search strategies, and knowledge of the ethical use of information. Teaching information literacy encompasses finding, evaluating, and using information while inquiry-based learning develops critical thinking skills.

Defining Collaboration

The ubiquitous use of the term “collaboration” has led to its multiple interpretations and definitions. Outside of education, collaboration has been defined as thinking together and sharing expertise, resources, and authority (Minnis, John-Steiner, & Weber, 1994, as cited in John-Steiner, 1998). A definition provided by Gray (1989) for corporate and nonprofit sectors suggests that collaboration is "a process through which parties who see different aspects of a problem can constructively explore their differences and search for solutions that go beyond their own limited vision of what is possible" (p. 5).

In education, collaboration is seen as a way of promoting "the most effective teaching possible for the greatest number of students" (Pugach & Johnson, 1995, p. 178). Callison (1997) proposed that collaboration for teacher-librarians means "co-planning, co-implementation, and co-evaluation" (p. 37). Donham (1999) explained that collaboration involves joint efforts by classroom teachers and teacher-librarians to identify student needs and jointly plan instruction and assessment. More recently, Buzzeo (2002a, 2002b) defined collaboration as equal partners who team design, team teach, and team evaluate. Whether we identify with one or all these perspectives, "the heart of collaboration resides in developing a climate of trust and mutual respect" (Rosenfeld & Loertscher, 2007, p. 3).

Building on these ideas, I propose a definition of a particular type of collaborative effort for 21st-century classroom teachers and teacher-librarians. Through a shared vision and shared objectives, student learning opportunities are created that integrate subject content and information literacy through jointly planning, implementing, and evaluating student progress throughout the instructional process in order to improve teaching and learning in all areas of the curriculum (Montiel-Overall, 2006).

Collaboration and the Process of Enhanced Learning

The benefits and enhanced student learning gained from teacher and teacher-librarian collaboration is well-researched and documented. Carol Kuhlthau's (1985) contributions regarding the process students engage in when researching, and her work (2001) on creating a culture of inquiry is a springboard from which to understand the role of the teacher-librarian in school-based research. Brown (2004) summarizes in table form five environmental factors surrounding the library media centre including scheduled planning meetings, impromptu discussion, administrative support, defined roles, and flexible

scheduling (p. 2). Further, she identifies five personal attributes of the teacher-librarian who successfully engages in collaboration, namely “proactive (but flexible) leadership, trust, shared vision, open communication, and self-confidence in one's contribution” (§ 48).

Scholastic's Research Foundation Paper *School Libraries Work!* (2008) finds “a substantial body of research since 1990 shows a positive relationship between school libraries and student achievement. The research studies highlighted show that school libraries can have a positive impact on student achievement” (p. 10). Two of the reports summarized on Scholastic's website in particular: *The Illinois Study: Powerful Libraries Make Powerful Learners* (Lance, Rodney, and Hamilton-Pennell, 2005) and *The Ohio Study: 13,000 Students Can't be Wrong* (Todd, Kuhlthau, and OLEMA, 2004) clearly indicate the links between quality school library programs, the role of the teacher-librarian, and higher academic achievement. Research results accounted for varying socio-economic conditions and pupil-teacher ratios, and still correlated to higher academic achievement at all grade levels, consistent with another Lance (1992) study in Colorado. Teacher-librarians make a difference. Todd & Kuhlthau (2005) specifically list qualitative comments from participants as to the effectiveness of school libraries.

Lonsdale (2003) undertakes a comprehensive review of 1990's library research literature to see if findings from the U.S. hold true in Australia. Their findings support the U.S. studies while pointing out some gaps in the research, as well as suggesting numerous possibilities for further research, and the likelihood that the effect of the teacher-librarian in the school may lessen from primary to high school.

Montiel-Overall (2006) cites five core elements of collaboration “interest, innovation, intensity, integration, and implementation” (§ 5) and presents four models of

collaboration from coordination at the low end, cooperation, integrated instruction, and finally integrated curriculum representing “high-end collaborative endeavors as a teacher-librarian’s valuable role” (¶ 14). When writing of the collaborative possibilities of a “broad range of subjects” open to collaboration, Montiel-Overall again only mentions academic subjects including math, science, language arts, and social studies (¶ 17).

Literature regarding teacher-librarian collaboration specifically with teachers in vocational classes, other than technology classes, is rare. From the Vocational and Career Collection Database, O’Grady (1999) in passing writes of assisting a student with research skills “to identify 25 quality sources that he needed for his project on automobile safety and teen drivers” (¶ 5).

Johnson (2006, October) comes a little closer to addressing the area of the high school vocational teacher collaborating with the teacher-librarian when he advocates for resources which would attend to the education needs of future blue-collar or middle-class workers. These would be the workers who require expert thinking and complex human communication in their occupational fields--fields prepared for through college or post-secondary training. The focus of his educational concerns center around a hierarchy of worker skills: particularly the use of technology skills from basic to advanced; information problem-solving skills including information literacy, and higher-order thinking or conceptual right-brained skills. His recommendation to teacher-librarians is simply to supply access to resources to support these skills particularly in the way of technology, and falls short of suggesting collaborative initiatives where teacher-librarians can infuse their expertise into classrooms where the technical skills of acquiring a trade are taught. Similarly

Crow (2006) examines factors which make for lifelong learners and does not make a connection to the collaborative role of a teacher-librarian.

Lesley Farmer (as cited in Loertscher & Rosenfeld, 2007, ¶ 1) advocates for teacher-librarian collaboration with “administrators, specialist teaching staff (such as special education teachers and reading specialists), and educational support staff (such as counselors, athletic coaches, and technology specialists)”. This broader view on collaboration is a welcomed insight, yet again no mention is made of collaborating with vocational teachers.

Looking to the future and with the internet increasingly overtaking first place as the source of information, Herring (2004) is an emphatic proponent of the teacher-librarian continuing to be involved in student learning by “embracing, exploiting and sharing new technologies” (Abstract, p. 1) in order for school libraries and librarians to stay current and relevant. Again, technology is the focus, rather than involvement in vocational classes.

All students need 21st century skills. If learning how to learn is a teachable skill essential for all students, then all students would benefit from multiple literacy skills important to successfully navigate in the 21st century. The logical conclusion is that all classes, including vocational classes, would benefit from collaboration with a skilled teacher-librarian. However, it seems little attention is given to this field. With so little specific mention of research in vocational education in the literature, an examination of my own project of practice becomes even more relevant. How could collaboration with a teacher-librarian enrich vocational curriculum at the high school level?

THE PROJECT OF PRACTICE

Opportunity is often simply hard work in disguise.

The Situation

The urban vocational school where I taught is one of only two remaining high schools in the city that specializes in “teaching to the trades”. The students are not on a career track to university, but are coached in the vocational skills required to work in a job right out of high school, or to enter skills or apprenticeship-type training. They earn either a General Diploma (100 credits) or a Knowledge & Employability (K&E) Certificate (80 credits). The school does not offer university stream English and Math courses. Until the 2006-2007 year, local high schools did not offer K&E or “lower-level” English and Math courses that this school offers. Some still may not. The number of academic courses offered at this K&E school is matched almost equally with the number of vocational classes available.

As a general guide K&E students have not been successful in their education at other schools. They may have been out of school for a period of time and/or have a wide range of abilities, disabilities, and challenges. At the school, an Individual Program Plan (IPP) is written for over 75% of the students who have specific learning or behaviour challenges as identified by a psychologist. Individual strategies are written which can be put into place to accommodate and assist those students in their learning requirements and these plans are reviewed by students and their parents three times over the year in an effort to help the students be successful. There is one Deaf and Hard of Hearing (DHH) class, and two classes known as Paced Learning Program (PLP) classes for students who have more severe physical and mental obstacles. Any particular class could be comprised of students from any

of these various programs. The school is a highly integrated community and generally students look out for one another.

Preliminary Collaboration

Large changes often start quite small. Through committee work at the school level, I developed a friendship and trust with the Human Care teacher, and this deepened into respect. Initially, the teacher asked if I could bring some children's books down to her class and demonstrate the art of reading to children. I learned that part of the curriculum consisted of developing oral reading skills as preparation to working in daycare or child care centres. Through further dialogue and discussion, we determined that there were quite different expectations and reading skills which were needed within even the narrow group of daycare children aged 0 to 6 years. We chose to split the teaching of reading to age groups 0 - 2, 3 - 4, and 5 - 6 years. Within these delineations, there would inevitably be overlap and duplication of types of books and reading expectations depending on the maturity level of the children. However, this could be discussed and examined as a class.

We decided to specialize in one age group per day for a period of 45 minutes each day over three days. Though the class was a split class of Grades 10/11/12 the teacher chose to have all students participate in the activity as one large group. Working on our own, I chose sample books from the school library collection and from my daughter's books at home while the teacher chose sample books from her classroom collection and from the public library. Before we even started co-teaching, the experience had become richer. I developed a handout for our visual students who might benefit from learning by reading, and to provide a framework for discussion. Each day for three successive days, we targeted one daycare age group. With much discussion, and the physical presence of sample books for

these age groups, students were soon able to look at, identify and analyze the colors, the simplicity and clarity of the pictures and illustrations, the size of print, the amount of print on a page, the durability of the book, or the theme. They were able to sort large quantities of books into age appropriate group recommendations and understand why. Each day they role-played reading to each other as though they were reading to a successively older child. The exercise was so successful, we did this every semester. Initial lessons began with a teacher introduction, a discussion of the handout, and then an examination of individual books. More recent lessons began with a generous pile of books which we simply presented to the students and asked that they be sorted into the three age groups targeted. Through discussion and physical interaction with the books, students were soon able to articulate to us the various age levels for the books and their rationale for choosing them. The handouts became a source of review and summary. The most recent semester's handouts are attached as Appendix A: Reading to Kids.

Progressive Cooperation

After the first year, I suggested a new dimension to the activity. Following our three classes of *Reading to Kids*, I suggested students could choose a single theme and create three children's books, one in each age group, thereby demonstrating their understandings of age appropriateness for each age group. The three books would make obvious the progression of abilities within the growing children, and visually demonstrate how age progression demanded that the books change as children grew. I anticipated the Human Care students would integrate technology and choose to design their books using Publisher, or a word processor, and demonstrate this progression by changing font choices, increasing visual difficulty, and incorporating style changes. The teacher was delighted with this

suggestion. It not only tied in with English Language Arts (ELA) topics, it also integrated technology into the Human Care class for the first time for those students who chose to make use of the computer in their book project. To this end we succeeded in adding a student computer to the classroom. The original handout for this project is attached as Appendix B: Children's Books – Design Your Own.

We found the project too ambitious. Students had indeed absorbed the key concepts of age appropriateness of reading materials. However, as they became excited about writing their own children's book, the care and attention to detail that they gave to each book made their project slow-going. Mid-stride the teacher chose to reach for quality of one book for only one age group, rather than requesting three books with the same theme which would serve to illustrate the differences between the age groups. She decided their one completed book could still serve to demonstrate their learning, as they verbally described their books and explained the reasoning behind their choices. The teacher, a skilled English major, further added the ELA strand of "Representing" their books to the rest of the class upon completion, and deemed the final project a strong success.

Main Project

To capitalize on this positive cooperative experience, the following semester I approached the teacher with the idea of further expanding the project by introducing the concept of teaching students how to evaluate children's websites. Since we were able to identify what elements were necessarily present in a "quality" book, I wanted the teacher and students to understand that these skills could be transferred to identify quality websites and that there were indeed websites suitable for even very young age groups. This suggestion was problematic as the teacher had been unaware that there were websites

appropriate for such young children, and I met with good-natured reluctance to take this next step.

When I was at home with a newborn and employed as a graphic designer from my home, my infant daughter would sit on my knee and “we” would do graphic art together. As she grew older and more restless and reached for the Delete key once too often, we turned to an idle computer beside us & loaded simple games to keep her amused. Between the age of two and three, we had found several websites which provided educational entertainment at her level, and felt very comfortable with the content and values of these websites. We watched in delight as she manipulated the mouse and keyboard to complete tasks, all the while learning new skills. I knew good websites were available for children as young as two years of age.

The teacher had a wonderful grasp of Human Care curriculum and a passion for developing competency in caregivers, yet she had a limited level of computer proficiency. She was hesitant to take initial steps onto the thin ice of technology on the internet. She had been unaware of the existence of good children’s websites and before engaging in a classroom project, I needed to introduce quality children’s websites and the concept of web evaluation to her. Even with initial enthusiasm, it was another semester before the teacher felt confident in taking her students from the exercise of differentiating quality books for children and reading to children, to finding and evaluating quality websites for children. The following semester we decided that together we would examine website content, appropriateness, bias, authorship, appeal, usability, and other criteria as taught in information literacy and website evaluation. By learning to evaluate children’s websites, we would have presented a transferable skill for students to use on any website.

Numerous web evaluation templates are available online, and I looked at several. For example Kathy Schrock's (2008) *Critical Examination of a Website Secondary School Level* has a very usable web evaluation form. That is, it would be usable in a regular high school. However, students at this school would find the density of text, difficult subtitles such as *Technical and Visual Aspects* or *Narrative Evaluation*, and the amount of information presented on this form, to be daunting regardless of the quality of the form. We needed a simpler approach--an adult approach with simpler language. Appendix C: *Web Evaluation for Secondary Grades* is a website evaluation form originally developed by Tammy Payton (2004) which I adapted to accommodate the needs of my students. This adapted version is attached as Appendix D: Adapted Version: *Evaluating Websites, Checklist*.

Once the class arrived we talked over the terminology of the web evaluation checklist form and prepared them for the day's events. Even with this simplified adaptation, we found the students had more difficulty with the terminology than we had anticipated, and were glad we had decided to walk through the form before proceeding to the exercise. We moved to the computer lab, logged on, and together evaluated the first website with full class participation. I had prepared the form attached as Appendix E: *Finding Your Own Websites* and we allowed the students to choose the first site from the samples at the top of the form. As a class, we worked through and filled out Appendix D for the chosen site, and students made their own evaluations in each category based upon their own opinions. There was no need for class agreement; however there was lively discussion and students were expected to justify their ranking decisions.

Evaluating one website was not enough for them to gain proficiency, and together we worked through three more of the websites listed in Appendix E before students felt

confident enough to individually tackle a new website on their own. Interestingly, the teacher was as engrossed as the students in the activity as I encouraged all to follow links, try out the games, and navigate the sites in order to evaluate them. She was thrilled and delighted that such a wealth of good information and activity for children was available on the web.

Once students felt competent in evaluating the websites collectively, students were individually encouraged to follow links to new websites from those we were evaluating, or to “google” for new sites. Below those websites listed on Appendix E, I had designed the simple note-taking form to give them a framework by which to report the new websites which they discovered and examined.

This point in the project would have been an ideal time to introduce Boolean search logic and web search skills and tricks. However, it was near the end of the semester and time did not allow for extensive search skills to be taught though the activity certainly would have lent itself well to the lesson. Perhaps the project would need to be extended again another semester. Nonetheless, time spent in individual search for worthy children’s sites yielded positive results. I believe good teaching is a continuous evolvement of improved practice, and there is often another skill a good teacher-librarian can teach another day.

Student Interaction and Outcome of Project

Again, the teacher was delighted with the learning that had occurred. Initially students had been reluctant to leave the familiarity of the classroom and engage in the untried waters of the computer lab. They wanted to continue making their children’s books. However, the lower numbers of students in the K&E classroom and the presence of two teachers enabled us to successfully integrate technology into this vocational course. In a

short time, the teacher became one of the students and her delight in exploring the children's websites selected became infectious for her students. Lively discussion and sharing of discoveries replaced initial hesitation, and by the end of our class, students could look at new sites and relatively quickly articulate why or why not certain elements of the new website was suitable or unsuitable for various age groups of children. Even after the class ended, they wanted to continue their website explorations. The teacher determined this extension of the *Reading to Kids* project a resounding success and very worthwhile. We were both pleased with our collaborative efforts and the results seen in our students, experiencing that "in an effective partnership, teacher-librarian and classroom teacher share a crucial underlying assumption that curriculum building is holistic and dynamic" (Rosenfeld & Loertscher, 2007, p. 3).

DISCUSSION

When I began my journey searching for ways to collaborate with vocational teachers, I personally anticipated that final goals, roles and outcomes would be very different between the academic and the vocational worlds. The focus and the time-frames certainly were quite different. I didn't know how they would be dissimilar, and I was eager to cooperate with vocational teachers and lend my expertise in any way I could, along the way experimenting and uncovering these differences. I valued learner outcomes achieved when collaborating with academic teachers and wanted to know if my time would be well-spent collaborating with vocational teachers. So, were the results of this collaboration valuable? Were results the same or different outcomes than working with an academic teacher?

Much to my amazement and after much personal reflection, I have concluded that the results were the same whether vocational or academic classes were involved. In this

project with the Human Care teacher, we were cooperatively planning, sharing teaching responsibilities, finding relevant resources, encouraging excellence, introducing technology, teaching information literacy, and evaluating web resources. The project encouraged discussion and debate between all participants, introduced vocational students to new life skills, and built further relationships. Though this was such a small segment of the curriculum, the free-flowing exchange of ideas before, during, and after the project opened new possibilities for the teacher and students that had not previously been considered. Quite simply, our collaboration enriched the course and facilitated new learning. Though I volunteered and was prepared to help with assessment, our collaboration did not extend to this degree. At another time it might.

How is Working with the K&E Teacher Different / Or is it?

Based on my own experience, a few key differences between working with academic teachers as opposed to vocational teachers come to mind.

The first was the amount of time it took to develop this working relationship. This one simple project seemed to extend its boundaries little by little over at least two and a half years and five semesters. Certainly it may have to do with the personality of this particular teacher or myself; however, it has been my experience and I am inclined to conclude, that it takes a longer period of time to develop collaborative relationships with vocational teachers. Research may or may not bear this out, and I can only speculate on why this might be. Perhaps academic teachers have more mandated curriculum to cover and are actively seeking creative ways to lighten the burden of covering this curriculum. There does not seem to be the same time pressure to cover all aspects of mandated curriculum in a vocational class and I often find vocational teachers tend to be more relaxed in their

approach, aiming for depth of topic, individual skill and excellence, and a one-student-at-a-time approach. Perhaps a step-by-step methodology has been developed by the teacher and there is a reluctance to change the pattern, leading to a longer amount of time to develop trust and respect necessary for collaboration. Perhaps vocational teachers are used to working alone, and it is outside their comfort zone to collaborate on particular projects.

A second difference I note is the solitary nature of the vocational teacher. Vocational teachers are skilled experts in their craft. While there may be two or three or ten English Language Arts teachers, there tends to be only one music or construction or automotives teacher. A wider array of vocational classes means a fewer number of teachers in each specialized vocational area. This singleness may lead to more solitary teaching expertise.

A third difference between working with academic and vocational teachers is that a teacher-librarian may have no experience whatsoever in the vocational teacher's area of specialty and therefore may be more reluctant to get involved. At some point a teacher-librarian would have been exposed to the academic worlds of numerous science, math, English, or social studies classes. Right or wrong, there would be some pre-conceived ideas about what constitutes excellence in these classes and perhaps there would be less hesitation to lend expertise to improving that teacher's practice. But what expertise would a teacher-librarian have in an autobody shop or music theatre or horticultural greenhouse? Perhaps none at all! The teacher-librarian's own lack of background knowledge as to what was needed might preclude conscious desire for collaboration.

Opportunities for the Teacher-Librarian in the Vocational Classroom

Ample opportunity exists for collaboration within vocational courses, and in very short order I could envision numerous possibilities. From my own practice:

1. After discovering a graphic design class was producing graphic novel style hand drawings as well as making their own graphic novels via computer, the teacher and I collaborated on a two-class seminar investigating graphic novel construction, demonstrating the many facets of graphic novel design and portrayal, visual storytelling, and including differences between comics (sequential art), graphic novels (fiction) and graphic works (non-fiction). Students then continued on their projects with a deeper understanding of their craft.
2. After working with a film studies class as they downloaded and edited movies on the Mac program iMovie, it was easy to encourage second languages classes to make their own movies which were vocabulary specific. This started after a question about whether appropriate DVDs were available to punctuate topical language study.
3. I have offered technology support and taught search strategies to a construction class as they set about sourcing materials and costs associated with an imaginary building project. The object was to determine the best course by which to proceed to satisfy both builder and customer demands. This is an exercise which could have been turned into an inquiry-based learning opportunity given more advance notice.
4. Internet resources arriving through sources such as the Librarians' Internet Index <http://lii.org> are automatically evaluated and forwarded to appropriate vocational teachers. Many are grateful for additional resources and like being encouraged to explore technology. Even if the information is not immediately used by these teachers, they appreciate being remembered and included. It validates and elevates their work and develops relationships and trust for future collaboration.

5. Included with permission by teacher-librarian Linda Shantz-Kerezstes (personal communication, March 10, 2008) as Appendix F, is an Information Retrieval Plan specific to a Cosmetology class.
6. Some vocational classes might develop their own web pages, and the teacher-librarian can be instrumental here either as a liaison between the school technician and the teacher, or as a web collaborator and information gatherer.
7. Arts and crafts classes can often be enticed to peruse specific genres of architecture, animals, methodology, or artists, etc. in books, and can be taught how to use our online databases to locate shelf resources, or taught internet search strategies.
8. Cookery classes benefit from an investigation of bias in advertising or on web pages, and similar to the Human Care project herein, gain from being able to distinguish good information sources from poor.

These are brief examples of enriched learning which would be lost without the benefit of a teacher-librarian readily at hand. We are limited only by our imaginations and time constraints.

Implications for High Schools: IOP or K&E

Before making recommendations for further research and then concluding, there is one more area of immediate and deep concern to me regarding present vocational education in Alberta. In order to better understand the implications of recent curriculum changes, it is necessary to look at a bit of history.

As I understand it, in the 1970s Alberta Education recognized that some students were falling behind and getting lost in the regular academic stream of the “normal” high schools. Reasons were varied and probably included students’ physical or intellectual

challenges, and/or sporadic attendance. To address the needs of this particular segment of the student population, a very few specialized high schools known as Integrated Occupational Program (IOP) schools or Vocational schools were set up in the large urban areas. Our Board had three such schools, and present terminology describes these students as Knowledge & Employability (K&E) students. By grouping IOP or K&E students in one building and intentionally preparing them for the world of work, additional support and increased funding could be provided which allowed smaller class sizes, education assistants, more guidance counselors, full-time career practitioners, etc. All three schools had teacher-librarians before the curriculum changes about to be described were made. It was believed that these high risk students would have a better chance of being successful and completing High School General Diplomas in this specialized atmosphere and my experience would agree with this assessment.

Progressing through English from Grades 10 to 12 normally takes three years and requires three classes--one in each grade--to arrive at a high school diploma. Progressing through the IOP English classes to English 33 had the option of being broken down into four classes, slightly smaller chunks from Grades 10 to 12, with the end results the same. The higher university entrance English 30 was not offered because so few IOP students plan to go to university.

IOP courses in these smaller chunks which were successfully completed, were awarded 3 credits in each academic subject while vocational subjects were awarded 10 credits, based on the hours attended. This contrasted with a regular high school where most academic and vocational courses are all worth 5 credits and are of equal time length. This meant that progressing through the IOP route (four classes) to a General Diploma would

require timetables which were different from timetables in the regular diploma program, due to their differences in hour requirements and credits value. Both IOP and regular students were lock-stepped into either the full IOP program or the full regular General Diploma program. Once an IOP student, always an IOP student. Once a General Diploma student, always a General Diploma student.

However, it is quite probable that an IOP student would have difficulty in only one or a few subject areas, and would only need additional support in one course. In order to allow for the flexibility of students sliding easily into and out of IOP courses in just certain subject areas and not being lock-stepped into the full IOP program, IOP courses have been changed and revamped to now be uniformly 5 credits in value and on an even timeline as the regular high school courses. The terminology “IOP” has been eliminated and has been replaced by the new “K&E” acronym. English 30 is now called English 30-1, English 33 is now called English 30-2, and K&E English is called English 30-4; however adherence to vocational training remains the same—in theory. With equivalent time length classes, students from both the K&E and General Diploma routes should be able to move flexibly in and out of K&E and General Diploma classes as needed on a course by course basis, thus eliminating students from being locked into either the full diploma or the full K&E routes (Alberta Education, 2008, p. 14). However the problem with this is that many more hours are now required to reach English 30-2 by following the K&E route, as courses have increased from 3 to 5 credits.

In my observation K&E students, whether identified or not, are in every public high school. With this change to uniform time length for both K&E and General Diploma courses, local neighborhood high schools can now more easily schedule classes into their

timetables for K&E learners, enabling these students to stay closer to home and attend their local high school. It is no longer seen as necessary to congregate them into one location to address their needs. Schools *can* schedule K&E classes. What I observe in practice is that these “lower” students are often simply enrolled into the three-year general stream of regular classes in the regular high schools no matter what skills they arrive with from Grade 9, and very few K&E courses are offered.

Enrolment is dropping in the specialized vocational high schools and I anticipate this will soon force their closures. One school has already been amalgamated into a regular high school, and enrolment at the second high school described herein fell by 25% in one year. The net result of these closures and the inclusion of more K&E students in the regular high schools, will undoubtedly lead to fewer vocational classroom opportunities within the city, and even less success for these vocational students. Regular high schools simply cannot offer the wide variety of vocational options that a vocational specialty school can offer. K&E students test-taking in the regular classrooms will naturally attain poorer assessment results which are then included in the schools’ average achievement comparisons. To the uninformed general population, public inclusive schools will have even lower aggregate test scores when compared to private non-inclusive schools’ test results. Everyone loses.

A parallel but different thought is offered by Volk (1997) as he examines the training of vocational teachers. His use of the word “technology” teacher would be on a par with “vocational” teacher:

It is very doubtful technology teacher preparation programs lost will ever return, and that very few new programs will have the opportunity to start, given the retrenchment efforts and budget cuts in higher education. We must therefore

give serious attention to the issues influencing the downward trend, for the survival of the technology teacher profession is at stake. For as the numbers indicate, if we do not address the issues, soon we will be going... going... gone(p. 69).

The reasoning and research behind these changes is beyond the scope of this project and would be an investigation of its own to evaluate outcomes of this transformation. I think the results merit close evaluation.

Recommendation for Further Research

Current research supports the positive effect teacher-librarians have upon information literacy and academic achievement when working with academic teachers. Based on this research it would be natural to predict that similar positive effects would appear when teacher-librarians collaborate with vocational teachers. Unfortunately, specific research in this area is sparse, and would therefore appear to be a good field to investigate. Another line of investigation to consider might be if the goals of collaboration in vocational classes should be the same and most desirable goals as collaboration in academic classes. Further research might look at the face of this collaboration, or how this collaboration would look, or how it would compare or contrast with collaboration in the academic subjects. From the lack of available literature on this narrower topic, certainly there is room for more research in the field of opportunities and outcomes for teacher-librarians collaborating with vocational teachers in high schools.

Both the role of the teacher-librarian and collaborative planning within that role, appear to be concepts not well known outside librarian circles. Classroom teachers who seek out this expertise would probably do so as they undertake some type of library research or

technology project with their students. When only one teacher-librarian exists in a high school of 1000 or 2600 students, simple logistics and time constraints on the day probably preclude the opportunity to develop further relationships and offer expertise in collaborative situations with the vocational team, particularly if those students are learning skills in their own area with specialized equipment. There is only so much time.

Conclusion

An examination of the literature regarding teacher-librarians working with Knowledge & Employability and vocational teachers, and an examination of my own personal practice, suggest several themes:

- ◆ sparse research has been done in the field,
- ◆ teacher-librarians have a place in both academic and vocational classrooms,
- ◆ equal contributions can be made regardless of the type of classroom,
- ◆ collaboration and enhanced learning are not specific to academic classrooms, and
- ◆ opportunities are plentiful.

From the abundance of research found regarding collaboration in academic classrooms, and the lack of research found regarding collaboration in high school vocational classes, it would seem a positive field for investigation. Perhaps it is this very silence in the vocational field which is seeing the slow demise of vocational education at the high school level, lending heightened credence to my own curiosities.

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Appendixes

Appendix A: Reading to Kids,
Reading to Preschoolers,
Reading to Kids who are Learning to Read

Appendix B: Children's Books: Design Your Own

Appendix C: Web Evaluation for Secondary Grades

Appendix D: Adapted Version: Evaluating Websites, Checklist

Appendix E: Finding your own Websites

Appendix F: Information Retrieval Plan for Cosmetology

