

## **Developing 21<sup>st</sup> Century School Media Resource Libraries for Singapore: An Assessment and Proposal from a Library and Information Science Education Taskforce**

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### **Abstract**

In light of global calls for emphasizing innovative thinking and creative problem solving in elementary and secondary schools and a more collaborative role for school media resource libraries to support the new focus, a taskforce of four faculty members from the Division of Information Studies of Nanyang Technological University undertook to assess the status of a selected group of thirteen media resource libraries in Singapore. Data obtained from questionnaires and focus groups indicate that for Singapore's School Media Resource Libraries to play a significant role in supporting the new educational focus some important changes are needed. Recommendations from the taskforce include a change in status of the School Media Resource Library and its supervisor, additional training and education for these supervisors, improved access and connectivity for inter-school cooperation, and more collaborative collection management policies.

### **Introduction**

At the dawn of the 21<sup>st</sup> century, many countries have recognized the need for a new vision for their educational systems that will prepare their students and future citizens for life in an increasingly information and technology-rich society. Competing in a rapidly changing information-based economy often requires skills different from those more traditionally accepted as part of the educational process. Creative problem solving, innovative thinking, information processing and assessment are only some of the skills deemed as necessary for active engaged citizens of the 21<sup>st</sup> century global economy. The role of the School Media Resource Library is often perceived as critical for the implementation of the new vision.

In the US, *Information Power: Building Partnerships for Learning*, (AASL, 1998) speaks clearly of the need for students to be skillful producers and consumers of information, participate in a global learning community, and become active creative users of information so they can be independent thinkers and contribute to a future society. In Australia, *Learning for the Future: Developing Information Services in Schools*, (ASLA, 2001) argues that the basis of how a society manages its knowledge and hence its ability to participate effectively in a knowledge society rests largely within the school community. It states that the need to use information effectively has sometimes become more important than the actual knowledge itself as the rapid pace of change means that answers valid today may not be so tomorrow. The impact of ICT (information and communication technology) means a new integrated perspective on the learning process. In Canada, the Association for Teacher-Librarians in

Canada, ATLC ([www.atlc.ca](http://www.atlc.ca)) in its Students' Bill of Rights states that there is a need for Canadian students to be prepared for a future where change will be one of the constants and their ability to be life-long learners and independent decision-makers will be critical to success in an information rich future. In New Zealand, Information & Communication Technologies (ICT) Strategy for Schools 2001-2004 Draft ([www.minedu.govt.nz](http://www.minedu.govt.nz)) states that students must develop knowledge, skills, and attitudes to participate fully in society to achieve a global economy and have a sense of identity and culture, and that information skills are essential for achieving this goal. In Singapore, *Project Work*, Ministry of Education, 1999 (<http://www1.moe.edu.sg/projectwork/>) states that students will be entering a dynamic and changing world so they need to be able to transfer ideas from one context to another and make creative connections between fields, develop self-directed inquiry as well as communicate and contribute to group objectives.

In many of these countries, the role of the school library whether it is called a School Library Media Center, Media Resource Library, included in the ICT group or given a different name, and those of the professionals in charge are regarded as central to the attainment of the new educational goals. Professional or advanced training is essential for those who will be leading the School Media Resource Libraries in these new roles. In the US the professionally educated School Library Media Specialist is the keystone of self-centered learning. In Canada the role of the highly trained Teacher-Librarian and the School Library is key to achieving their educational goals, In Australia teachers and information services staff collaborate to focus on the learning process not just the product. In New Zealand, the Trained Teacher Librarians often head the development of information skills in the school curriculum. Indeed the policy statement of IASL itself states the school library is central to the fulfillment of the goals and objectives of the school and that a planned program of teaching information skills in partnership with classroom teachers and other educators is essential. ([www.iasl-slo.org/policysl.html](http://www.iasl-slo.org/policysl.html))

In Singapore, although *Project Work* speaks broadly of the importance of creative learning and thinking skills as well as gathering and processing information, there is little or no reference to the role of the School Media Resource Libraries or that of the School Media Resource Librarian. Likewise in *Library 2000* (1994) a blueprint for strategic planning for Singapore libraries, school libraries are included in the planning, but specific implementation has been slow. However the updated *School Media Resource Library Handbook* from the Ministry of Education (2001), states that the School Media Resource Library is expected to be the center of the school learning and teaching activities and to provide support for classroom learning as well as for developing new student approaches to learning.

The Division of Information Studies at Nanyang Technological University was formed as a result of the Library 2000 plan to educate and train information professionals to work in a range of information intensive environments including public, academic, school and special libraries. The Division operates at the graduate level offering a Master of Science in Information Studies, MSc(IS), and is the only such graduate program in Singapore. Within the program, students may select any one of five special concentrations: Information Systems, Library and Information Science, Information Management, Archival Informatics, or School Media Resource Management.

Given the purpose of the Division's creation and the clear statement from the Ministry of Education to reposition the School Media Resource Library as a central player in the Project Work initiative, it seemed appropriate for the Division of Information Studies at NTU

to take an active role in facilitating a more central role in the school curriculum for the School Media Resource Library by emphasizing among other things, the need for well-trained professionals to be in charge of these centers. With several relevant courses already part of the Master's Degree in Information Studies, developing a concentration area specifically targeted to those students wanting further training in this field appeared to be a logical response. By selecting the concentration in School Media Resource Management, students will receive the education and training required for a professional career in child and youth-related library environments. However, before developing this concentration further, it seemed advisable to assess the current situation in the Singapore schools in order to determine both current and future needs.

### **The Assessment Process**

Because timing was important, contacts were made to former students currently in supervisory roles in the Singapore schools. A positive response was received from the Superintendent of the North Zone Cluster Schools and a small taskforce of faculty members from the Division of Information Studies at NTU was invited to make a presentation to the principals and vice-principals of this cluster. As part of the presentation, data from the USA and UK studies were cited to indicate that an effective and involved School Media Resource Library (SMRL) program can support resource-based learning and effective problem solving skills, and can also contribute to a rise in standardized test scores for the children of these schools. Data from studies in the UK, Alaska, Colorado, Massachusetts and Texas demonstrate that among other results, schools with full-time qualified school media specialists involved in an instructional role have a larger percentage of their students with high test scores. (Hughes,1998; Lance, 1994; Hopkins & Zweizig,1999; Baughman, 2001;Glick, 2001)

The enthusiastic response to the Division's presentation and follow-up focus group discussions led to plans for more formal meetings between the task force and representative groups from the North Zone Cluster Seven Schools. The original plan was to carry these presentations to a larger selection of Singapore schools, but after the meeting with this cluster group, it was decided to use the North Zone Cluster Seven as a pilot project group and determine how best to meet needs of these schools before attempting those of a larger audience. Two courses of action were decided upon: first, visits to several schools for focus group sessions with representatives from surrounding schools; second, questionnaires to be sent to each school in the cluster to help us appraise basic SMRL status.

### **School Visits**

From the first school visit and focus group, the task force learned a great deal about the staffing patterns and qualifications of SMRL department heads and/or coordinators. In light of these fruitful discussions, version one of the questionnaire was revised to include some more basic questions about school library collections and staffing qualifications. In subsequent school visits, questionnaire results were presented and focus group discussions were continued. The topics considered in these groups were the role of the SMRL in the school curriculum, the qualifications of SMRL staff, and the training and educational needs of SMRL staff and coordinators.

The focus group discussions provided the following picture of SMRL governance and operations. In Singapore, there are 376 primary schools, secondary schools and junior

colleges. Junior Colleges have a full time professional librarian but primary and secondary schools do not. In these schools library functions are run by Heads Of Division (Information Technology cum Media Resource Library) or Library Coordinators. These are teachers with little or no library background or training. They are tasked to manage the SMRL as a co-curricular activity over and above their normal teaching workload. In a typical SMRL the Head Of Division (IT cum MRL) is in overall charge of both the IT and SMRL aspects of the school. The management of the SMRL is the responsibility of the Library Coordinator, a position that may or may not even exist in some schools. He or she may be assisted by a team of teacher librarians, pupil librarians, and/or parent volunteers. Some schools may employ a part-time staff member who takes on the role of a paraprofessional to assist in the daily operation of the School Media Resource Library.

From this overview, the taskforce made some important assessments. First, the SMRL operates as a co-curricular activity (CCA) that indicates a status somewhat less than that of a full-fledged curriculum partner. Second, because of this status, the SMRL supervisor is a regular teacher assigned to the SMRL as his/her special CCA duty. As a result, SMRL supervision is an additional responsibility beyond regular teaching duties and thus the assignment may change frequently – sometimes every year. Third, although there may be some continuity through interaction with previous SMRL supervisors and/or those in other schools, often there is almost none.

### **The Questionnaire**

The questionnaire given to each of the thirteen North Zone Cluster Seven Schools requested information about School Media Resource Library basics such as school enrollment and number of teaching staff as well as the qualifications and experience of those in charge of the SMRL, the collection and selection policies, library use by students and teachers, library automation, and the education and training needs of SMRL supervisors. We were fortunate to be working with the superintendent of this cluster, so we received responses from all thirteen schools, (100% rate of return). The questionnaires revealed the following information.

#### **SMRL Basic Information**

##### *School size and Budget:*

Most schools have populations between 1500 and 2500 students; more than 61% were established within the last five years; in 2001, most received a larger budget than in the previous year.

##### *Collections:*

Over half of the schools have book collections from 5,000 to 15,000 volumes and 100 to 500 CD-ROM titles, but have few magazine subscriptions.

##### *Selection and Acquisition:*

Often the Head of Department, coordinator, or library committee selects material; usually publishers' catalogs and vendor lists are used to identify materials; electronic or web-based tools are not used.

*MRL Use:*

Very few students use the SMRL for class projects or assignments; teachers often do not alert the SMRL to new course topics; in ten of thirteen schools, students had one mandatory SMRL visit each week (3 schools had an SMRL in development stage only)

*Automation:*

In most schools, the collection development and/or circulation activities are at least partially automated; but most schools have no OPAC available for searching the collection.

**Education and Training Needs**

*Education and Training:*

Sixteen or 61.5% of the department heads or coordinators are without a bachelor's degree or equivalent.

63% have never attended any short courses on SMRL management.

*Perceived Educational Needs:*

For short-term needs, all respondents indicated a need for short courses on major library operations.

For the long run, all respondents requested a full master's degree program; although 75% preferred a program offered part-time and targeted to the needs and schedule of SMRL staff.

**Evaluation and Recommendations**

With the information obtained from the focus groups and questionnaires examined in the light of international goals for school library media center curricular involvement and those of the Singapore Project Work initiative, the task force made the following recommendations for the strengthening of SMRLs in Singapore. To assist Singapore in transforming its school libraries into world-class media resource centers, several priorities need to be recognized.

*Long-run Goals*

First, schools need to reposition their SMRLs to play a more central role in the school's curriculum. If we can believe the data emerging from US and UK studies, an active media center involved in partnering with teachers to promote and support resource-based learning brings only good results to teachers and students. To facilitate this, the Ministry of Education in Singapore (MOE) should seriously consider creating positions for professionally educated School Media Resource Librarians completely separate from teacher positions. This action would not only provide the leadership necessary to realize the goal of school wide resource-based learning but would relieve classroom teachers of CCA library supervision, for which they have little training, and give them time and an opportunity to work collaboratively with a trained School Media Resource Librarian for the benefit of their students.

Second, the leaders and supervisor of these SMRLs should be well trained and educated in all areas of school media resource library management including curricular support activities to promote the SMRL as the center of school learning and teaching activities. (*School Media Resource Library Handbook* from the Ministry of Education, 2001) Finally, the newly constituted SMRLs should have the full support of both principals and government administrators. This support should be in terms of budget, staffing, facilities and

IT development as well as personal encouragement and recognition of the importance of a quality SMRL program.

### *Intermediate Actions*

To achieve the long-range goals listed above, several courses of action are suggested as intermediate actions. First, the position of the SMRL supervisor should be recognized as a permanent full-time assignment and carry the status of a fully qualified professional partner in curricular activities. Developing and managing a quality SMRL facility and program is a full-time responsibility that requires dedication and creativity. Ideally each school should employ a professionally trained teacher-librarian to manage the facilities, collection, and programs for the school as well as one or more library aides to manage daily library activities.

Second, with a full-time well-qualified professional in charge of the SMRL, cooperative, collaborative educational activities with classroom teachers and HOD's should be possible. These would include cooperative collection building for the SMRL, partnership in curricular assignments, and development of resource-based learning modules through which students would build research and problem-solving skills.

Third, to maintain a well-functioning and effective SMRL program requires that access to relevant curricular support and recreational materials are easily available. Fully functioning Online Public Access Catalogs (OPACs) should be maintained in each school. These should have student-friendly interfaces to encourage the development of good information finding skills as well as providing access to materials in the local collection. In the long run, the OPAC's from each school should be available on the Internet to facilitate access by local cluster users as well as providing resource sharing among all Singapore schools. A further impetus for sharing of resources suggested by the taskforce is the development of a Schools Portal to serve as a central information access site where all schools could contribute and share local ideas and information as well as provide useful external links to Internet and other remote resources.

### *Short-run Solutions*

It is recognized that for both recommended Long-run Goals and Intermediate Actions dramatic shifts in policy and action may be required by Singapore's schools. In several cases such as creating a special position for SMRL supervisor, for instance, decisions may be well beyond the powers of the individual School Clusters and in fact may be possible only far into the future. But because the task force believes in the importance of the suggested long-range goals, it strongly recommends that immediate measures be taken wherever possible in order to create momentum toward their eventual attainment. World class SMRL's are not beyond the scope of Singapore's schools, but initiatives must be implemented before too long or much of the developed world will have moved on.

First, since survey findings show that 61% of current SMRL staff in the North Zone Cluster Seven schools do not meet NTU's requirements for entrance into a professional program, an alternative approach is needed to give this group basic skills to help them in the daily operations of an SMRL. A series of five training modules to cover some important basics would include: collection development, information organization, reference and information sources, planning and management of SMRLs, and developing web pages and digital libraries. These are to be run consecutively during school holidays. As interim

measures only, they are not meant to replace the formal professional training needed to head the types of programs suggested in the Long-run Goals statement.

Second, another recommendation for the short term is that two professional positions be created at the Cluster level and that the individuals selected for these be sent for professional training (either full or part-time) at NTU. Having been professionally trained, these two could work with SMRL supervisors, HOD's and teachers to develop and coordinate SMRL programs within the cluster. Gradually, these two positions could be expanded to include other professionally trained supervisors of individual SMRLs.

Third, for efficiency and economy, it is suggested that procurement of books and other materials be centralized at the Cluster level. This not only would eliminate unnecessary duplication, but also offer the benefit of volume discounts. For very expensive items, one copy or series could be kept at Cluster level for borrowing by the individual schools (see the benefits of Internet access to local OPACs mentioned in Intermediate Actions above). Fourth, we recommend that when selecting support materials for classroom activities as well as recreational materials for independent reading, the sources be expanded to include online bookstores and specialized websites for children's literature be consulted as well as publisher's catalogs and vendor lists. This will provide added depth and breadth to a school's collection and should serve to support the recommendations for curricular support mentioned above.

By beginning with short-run solutions, then applying these to suggested intermediate actions which can then be used to achieve long-run goals, the task force feels that the North Zone Cluster Seven schools could function as a successful pilot program and serve as a role model for all Singapore schools.

## **Conclusion**

In the assessment of North Zone Cluster Seven schools by the taskforce from the Division of Information Studies at Nanyang Technological University, we found no lack of dedication, commitment, or concern for student needs on the part of SMRL division heads or supervisors. Likewise both principals and vice-principals voiced a great desire for developing and maintaining quality SMRLs and SMRL programs in their schools. However, it appears that the major impediment to the achievement of these goals is the current status of the SMRL as a center for recreational reading and the position of SMRL supervisor as a CCA assignment. Without recognition of the importance of a professionally trained SMRL department head assigned on a long term basis, it will continue to be extremely difficult for the SMRL to function as a collaborative partner with classroom teachers to support resource-based learning and problem-solving skills initiatives.

Proposals from the Division of Information Studies at NTU to help address the current problems in Singapore SMRLs include: short run training modules to provide basic skills to SMRL staff who do not have the qualifications for admission into a graduate professional program; selection of two qualified SMRL supervisors for admission into the full MSc (Information Studies) graduate program with a concentration in School Media Resource Management to serve as coordinators/advisors to help SMRL supervisors within the Cluster work toward having the SMRL serve a more central and integrated role in the school curriculum; recommendations for upgrading access to OPACs for the individual schools as well as system-wide integration; a Schools Portal to serve as a central information access site;

and a centralized system for collection development and acquisition. The Division firmly believes that Singapore is committed to providing quality education for all students and fully recognizes the importance of creative learning and thinking as well as skills for gathering and processing information. The taskforce hopes that recognition of the central role of the SMRL in supporting and fostering these efforts continues to be part of its vision of world-class schools.

It is hoped that from this account of efforts by the NTU Division of Information Studies taskforce to promote significant changes in the School Media Resource Libraries in Singapore schools, others may be encouraged to take an active role in implementing the new vision of an active, creative school learning environment where the School Media Resource Library is the learning center of the school community.

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