Lost in space: designing for learning

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Abstract

The design of a learning space, and the many factors that come together to create that space, impact on how we feel and behave in that space and ultimately how we learn. This paper will discuss the importance of mission statements, policy and planning in light of how we create spaces that are learning-driven, human-centred and flexible. Of particular interest is how the culture of the space and the use technology are incorporated into design considerations in light of these factors. This paper explores, very briefly, the theoretical discussion, whilst the conference presentation will consider examples of these view in practice.

Introduction

Change is a constant in education. School libraries, in some ways more that any other area, are at the forefront of this change. We are surrounded by constant discussion about how we can best support and enrich the learning process in these changing times. Libraries are also often the centre of development and experimentation within a school. A student-centred, collaborative approach to learning, the recognition of a range of learning styles and an open plan approach to space are often experienced first in the library. School libraries have also been instrumental in taking up new technologies to the benefit of the school community. This ability and keenness to explore technology and what it can offer has also positioned school libraries as pivotal, and often instrumental, in bringing about change and advancement in schools. An online space created by Education Queensland for the sharing of ideas on school design says of school libraries:

> New libraries offer a mix of activities and are places that value informal as well as formal learning. The spaces may represent the home more than a traditional classroom environment with themed and connected spaces, soft furnishings and a mix of educational and recreational learning activities. An effective library can become the most exciting place for learning in the school. (Education Queensland, 2009).

If we are, as a profession, to maintain this position of leadership we must continue to explore how to best meet the learning needs of our communities whilst responding to the new developments that are just around the corner. This constant pressure makes the design of school library spaces an exciting, challenging, albeit difficult and demanding, area that is worthy of intense discussion.

The school library in the 21st century

'Libraries stoke the fires of the imagination by providing the materials needed to keep it burning. They also provide a safe and happy space within which to undertake these adventures of the mind' (Brooks, 2010).

What does the school library of the 21st century look like? Presently, we have an enormous range of school library 'types' both within my own country and across the world. Collection-focused, traditional classroom style spaces available only for quiet research at one end of the spectrum, and open plan, highly technology-centred, collaborative spaces where a range of diverse activities are conducted are at the other.

Is it possible to create a library that effectively embraces the old and the new? Can we create open, collaborative spaces of exploration without compromising rigorous engagement, genuine learning and a critical academic interaction with knowledge? As with any change, it is imperative that we grapple with these questions up front. Too often design changes are reactive – responding to the new latest gadget or buzzword without seriously engaging first with the culture that the institution is trying to create within a given space or giving serious thought to the learning needs of the users. Design, as all change, should be

proactive – built upon a considered discussion of the mission of the institution, the policies that are informed by this and the culture the particular institution is striving to create.

Culture

'Culture' has many definitions and carries a lot of baggage. In this instance I refer to culture in the sense of one of its dictionary definitions – 'The predominating attitudes and behaviour that characterize the functioning of a group or organisation'. The culture of a library space, therefore, relates to how it is used, the behaviours that are encouraged within, and the attitudes of all who use it. The attitudes of the community drive culture. In 1985, Smart (p. 66) recognised the people factor. Having reviewed current research, she claimed that it is the faces that greet the library users that determine the quality of the service or, perhaps, the culture of that service. Phillips (1988, p. 25) said that the "three great intangibles of school librarianship are image, personality and atmosphere", three factors that might also contribute to the culture that is created.

In an article in *Effective learning spaces: Inspiration for school library design*, Andrea Wilson (2003, p. 18) discusses the view that public libraries are now seen as "Community Cultural Epicentres". She suggests that public libraries are beginning to be seen as "places that can offer diverse spaces catering for social exchange, personal growth, knowledge share, retreat and celebration". School libraries may not play an identical role but they do have a role as a centre for communication, for community interaction and for collaboration. They are part of the culture of the institution within which they are housed and may also have a distinct culture of their own.

Developments in technology have an unquestionable impact on the way we design spaces, but the impact is not only on the physical aspects of space. Both technology and the changes it allows impact upon the culture of spaces. Technology itself can drive a change in culture. More appropriate, however, is to have the culture change the space in light of the institution's policies, attitudes, values and needs. In this scenario, change is driven by the users and their learning needs rather than by either technology or design. This can come about in a variety of ways. In a discussion of a recent remodelling of a public library space, Hayward (Rosenblum, 2010) reports responding to public views when renovating and changing the way the library operated to increase library usage and borrowing. This responsiveness to user needs necessitated changes to layout, and also changes to the culture of the library. Staff needed to embrace a more open and responsive style of management and operation in order to fulfil the needs of their users. In this case-study, good design responded to cultural changes and together created new and vibrant library spaces.

Design informed by mission, policy and planning

Davidson (2001) said: "Physical space reflects educational philosophy. Educators who reorient physical space to support essential learning agree: set clear pedagogical and social goals before you organise space". A mission statement, which is owned by the library staff and the school community and fully endorsed by school administration that clearly states the aims and objectives of the school library, is a powerful base from which to build the library program. Current curriculum policy and relevant research should inform this statement or policy, as should the whole school strategic plan. Policies of any kind, like design, are never static and all documentation must be regularly reviewed, consultation involving all stakeholders in crucial. An online listing of the top ten design ideas for the 21st century states:

> A program-driven, process-oriented approach to designing new schools for the 21st century involves students, the community, the professional staff, the administration and the board in a collaborative planning process that focuses on educational and community goals. Extensive programming is done through multiple meetings with community focus groups. Although time-consuming, this process produces a clear program of needs, as well as a consensus of vision between the user groups and the community. Barriers of opposition are broken down through compromise and enlightened knowledge (*Top 10 Design Ideas for Schools of the 21st Century,* 1998).

Consultation and planning should also inform the design process. Bolan (2009) in her public library work on creating teen spaces, stresses the importance of both short and long term plans to support the design process (p. 47). She provides a range of useful worksheets to support the planning process and also suggests the

creation of a design file (p. 80 – 81). Keeping such a file and creating checklists of ideas and issues to be addressed is a powerful support that can assist you when working with your school administration and any of the professionals involved in the project – architects, project managers, etc. This approach enables you to confidently approach conversations with those involved in the design process and those who have their hand on the purse strings for any project. The knowledge and expertise a teacher-librarian brings to the discussion table around any project is beyond question as their experience provides an insight into what is needed to create a responsive, learner-centred school library.

Designing for learning
If we accept that a design project is informed by a consideration of both the desired cultural outcomes and the mission and policy statements currently in place, the next consideration is what types of learning do we want to support in this space? How will the space support our needs? And what does this imply about the physical structure and the choices we make regarding fit-out and decoration of the space. In order to identify the design needs of any project, we need to first begin with a process that explores who we are creating the space for and the nature of the learning that we want to occur. In the excellent article '*What if…?*' (Rudd et. al., 2006) the authors quote Dr Despenza-Green as saying: "Instead of starting from the physical, you need to start with the program you know you need to have. Then you can see how your existing structure won't let you do that. And then you do the work of making physical changes" (p. 3). We must ask ourselves what we want learning to be for our students, what we want them to experience at school and how we want these experiences to unfold in light of current theories about learning and the possible future directions in education. I would like to focus on three factors that should be at the centre of any such discussion. These are the concepts, or factors, that should drive any discussion of space. They are:

- Learning driven

- Human-centred

- Flexible

Learning driven
Historically, education has been content driven and teacher centred. New models of learning that suggest a constructivist approach to learning are centred on the student and his/her experiences, abilities and needs. Nair (2002), challenges us to ask ourselves "what is learning?"And what is it that we can do in relation to spaces and their design that will impact upon student learning? Oblinger (2006, p. 14.1), argues that we need to learn, or relearn, how we see space. She suggests we must move beyond our perceptions of what learning spaces are in an effort to reconsider the traditional classroom and how it operates. The same can be said of library spaces. Oblinger suggests that though we may be surrounded with different models, we think of a traditional classroom as the basis of schooling even when most of our student's learning is carried out in vastly different spaces. Chism and Bickford (2003), suggest that we make a number of assumptions about the nature of students and education that are centred on the mistaken belief that learning is best undertaken in a traditional, Victorian era style classroom model of rows of chairs and teaching from the front.

School libraries, better than any other area in most schools, are well positioned to consider space differently as they have a larger number of options. Being larger spaces, with fewer restrictive impediments and more flexible, unfixed internal structures, they are better able to embrace redesign without a major building program.

Prensky has suggested that our current students are "digital natives" (2001, p. 1) who need to learn in ways that are meaningful to them. Integrating technology into the mix is therefore important. But, as we strive to create a learning-driven environment, we must be conscious of how every component of the environment impacts upon the students' ability to learn. Technology is only one tool, or set of tools, to consider. How students learn best, how they interact socially, how they best interact with a range of instructors should all be

considered. We need to engage ourselves with the knowledge that young people are technology able, independent and social but that not all students are all three. We must offer them rich contexts and inspiring, creative environments that stimulate learning whilst offering options and choice when possible.

Fielding says:

> We all learn differently, and we learn all of the time. We learn in quiet reflection, in noisy leaps, and in social interactions that arouse our emotions. A wonderful characteristic of learning is that we learn when we feel secure and cozy, and also when we feel challenged. In fact, human beings are wired to learn—to make connections and to recognize patterns in a wide variety of conditions. (Fielding, 2006, p. 1)

Both formal and informal spaces for learning are important; reflective spaces and large collaborative spaces. The challenge for school libraries is to engage with all of the ways students learn and to offer a variety of spaces to enable them to fully engage with what is on offer. Explorations such as this give us permission to be inventive when we design spaces for learning, now and into the future. Rudd et. al. ask: "what might different spaces designed specifically for kinaesthetic, auditory, spatial, interpersonal or visual learning look like? New technologies can also transform the 'feel' of spaces to create safe and stimulating environments for learners" (Rudd et. al., 2006, p. 10).

Human-Centred
Technology has an important place in learning that cannot be discounted, but it should always remain simply a tool to facilitate engagement with knowledge. It can sometimes be an instrumental tool, offering the means with which to modify and communicate knowledge in a school setting. The learning that is facilitated by technology and the space, within which this learning takes place, must remain human-centred. In school libraries, one can see examples of spaces where the needs of the hardware takes precedence over the comfort and other related learning needs of the users. Brown and Long (Oblinger 2006, p. 9.10), in their chapter on trends in learning space design, state: "Human-centered design helps us keep people—not the latest technology—in the forefront of design decisions". A vitally important factor, for us to consider in any design project as too often the excitement of new technologies has driven the design and use of some school spaces with little thought to the human factor in the learning process.

Learning can be either a social activity or a solitary pursuit; we learn through contact with others or the objects and information that others have created. Many of us learn best when interacting directly with others, when we have the opportunity to explore, discuss and debate ideas. For this reason, school library design must consider how we create spaces that encourage collaboration and communication. The placement of learning spaces, their size, the configuration of the furniture and the learning tools available all contribute to how the space is used. These, and making space pleasurable, comfortable and engaging, are all part of creating a human-centred learning space within a school library.

Flexible
The listing by HMHF Architects of the *Top ten design ideas for schools of the 21st century* claims: "Flexible multiuse spaces are a key to the high school of the 21st century. Flexible, adjustable design accommodates today's programs while expanding our vision of tomorrow" (1998).

Flexibility is the key to a learner-driven, human-centred environment. Flexibility is best found in spaces that are kept open and uncluttered, where all fixtures, furniture, technology, resource storage, display etc., is kept as simple and as versatile as possible. This means designing structural elements to be as changeable as possible without sacrificing function and aesthetics. All furniture and fittings must be movable and not fixed in position and, where possible, specific library elements, like shelving, should be fitted with wheels. With this arrangement, spaces can be altered easily and quickly to meet the needs of the learners or the activity. It also creates a library that can respond to the various demands that the community may place upon it in a changing educational environment where libraries need to perform diverse roles.

Conclusion

The environment in which we learn affects our experiences, influences our learning and, can alter our views or attitudes about learning. Therefore how we design library spaces is an important consideration for any library team and the wider school community. The challenge of creating a learning driven, human-centred, flexible library space that is informed by relevant policy and mission documents and that embraces the culture of the institution is an ongoing challenge that is complex. This brief paper has only touched the surface of what is a much larger discussion. There is not time to explore the different elements of design, factors such as layout, furniture, colour or lighting, nor is there time to explore what any of this looks like in practice.

It is important though, to recognise that there is benefit in considering the bigger picture, discussion on the culture we wish to support, the learning we want to enrich and the ways we think this might best work are worth having before we engage with what this looks like in practice. Constant reflection and consultation of all kinds is also essential, but, ultimately, the work of creating a series of effective learning spaces is reliant upon the knowledge and enthusiasm of the professional team that take on this task. If we are to succeed we must take the opportunities that are offered to us, embrace change and new ideas and explore what these exciting times in education have to offer each one of us.

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