

Uncovering the Provisos behind Flexible Learning

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Abstract

In this paper we argue that flexible learning, as is prevailing among Australasian higher education institutions in recent years, is not without a price. Through a review of literature, we try to uncover provisos underpinning flexible learning. That is, all flexibilities come with provisos, pre-conditions, and commitments (or even inflexibilities). In order to make one aspect of the instruction flexible, usually other aspects have to be made more structured. Eight aspects of flexibility are analysed and discussed. We conclude this paper with a call for more rigorous investigations into issues related to flexible learning.

Keywords

Flexible learning, Cost-effectiveness, Proviso, Flexibility

Introduction

In this paper we argue that flexible learning, as is prevailing among Australasian higher education institutions in recent years, is not without a price. Through a review of literature, we try to uncover provisos underpinning flexible learning. That is, all flexibilities come with provisos, pre-conditions, and commitments (or even inflexibilities). In order to make one aspect of the instruction flexible, usually other aspects have to be made more structured.

A commonly accepted definition of flexible learning is that an institution provides students with flexible access to learning experiences in terms of at least one of the following: *time, place, pace, learning style, content, assessment* and *pathways* (e.g., Macquarie University, 2001; Browne, 1999; Ling, et al, 2001). This definition is based on the view that learning requires the active engagement of students; and that students should be more independent and more responsible for their own learning. That is, flexible learning tends to be student-centred, rather than teacher-centred. Other characteristics of flexible learning include: students' collaboration with peers and/or practitioners in the field, provision of ample resources, the learning experience being context sensitive, and greater emphasis on generic skills (e.g. thinking, meta-cognitive, problem-solving), and the shift of the teacher's role from a source of knowledge to a facilitator throughout the students' journey in learning (e.g., Bridgland & Blanchard, 2001; George & Luke, 1995; University of Sydney, 1999).

The term flexible learning, in some documents, is loosely used and sometimes may be referred to as distance education, open learning, e-learning, technology-based learning, and more recently blended learning. In this paper, flexible learning is taken as a broad concept, which encompasses aspects and features of most of these terms.

Flexible learning can be translated into different levels in implementation. For example, it could focus mainly on using a technologically driven e-learning environment to make learning flexible (Waikato University). It could mainly focus on flexible delivery, which includes various types of mediated instruction including print, audio-visual, computer assisted or online delivery as well as traditional instructional formats such as lectures and tutorials (University of Wollongong, 2000). Flexibility can be considered in terms of course structure, course content, teaching and learning methods, interactions between the teacher and the students, and assessment method (Monash University). Macquarie University (2001) has adopted flexible learning as a university-wide endeavour. The Centre for Flexible Learning was established to coordinate and implement such efforts. A total of 31 staff members are working in the Centre for Flexible Learning. This Centre is set up in addition to the

Centre for Professional Development (11 members) and the Centre for Open Learning (30 members), the distance education “arm” of the University.

In Australia, Ling et al (2001) surveyed 10 universities and identified 6 models of flexible provision of higher education:

1. Moving time and/or place to suit the learner
(e.g., provision in the workplace or regional campuses, study centres, or summer school)
2. Removing fixed time and place constraints
(e.g., off-campus programmes utilising print or digital tuition materials)
3. Removing entry requirements
(e.g., no academic entry requirement or recognise and give credit for prior learning)
4. Providing alternative entry and exit points appropriate to the learner
(e.g., courses that articulate with TAFE studies providing advanced standing in the higher education course; programs that provide alternate exit points)
5. Accommodating learning style, pace and collaboration preferences
(e.g., programmes offered in full or in part in more than one mode; programmes with flexible time schedules; courses that permit but do not require collaboration)
6. Accommodating content and assessment preferences
(e.g., modularised content allowing choice in construction of a programme; problem-based learning allowing some selection of content; alternative assessment tasks)

Most of the universities surveyed by Ling et al are situated in rural areas and are predominantly distance education institutions or traditional campus-based universities with existing infrastructure to support the provision of education in alternative ways.

The Tug Between Learning- and Cost- Effectiveness

A search of the literature on flexible learning has been disappointing because not many studies directly address effectiveness issues related to flexible learning. Of the few papers found, most of them are based on conceptual analysis or anecdote. A closer examination of these papers showed that most of them converge on two common questions set forth by institutions.

First, is flexible learning an effective way to learn? It seems that most papers advocate flexible learning at the philosophical and theoretical level (e.g., Takala, Hawk & Rammos, 2001) or describe how flexible learning is implemented in its respective local context at the institution (e.g., Bridgland & Blanchard, 2001; Munan, George & McCausland, 2000). There is little reference to student learning or the quality of the learning experience. There are some attempts to measure the success of flexible learning by so-called performance indicators. However, most of these are indicators of flexibility or satisfaction, which are loosely related to learning. For example, the University of South Australia uses the Graduate Course Experience Questionnaire as a key performance indicator for its success in teaching and learning (Munan, George & McCausland, 2000). This questionnaire asks about how much students enjoyed the learning experience, but not about the quality of that experience. An elaborate study commissioned by the Australian Ministry of Education on flexible provision of higher education uses student completion and attrition rates or student satisfaction as the indicator for "student outcome" (Ling et al, 2001). Bell et al (2001) studied how making time and place of learning flexible affects student learning. They were disappointed to find that flexibility reduced students' motivation and that the students tended to defer their study because they could do it at a later time. The above examples provide only weak evidence that if students are empowered with flexible access to learning, they will actually learn better.

Second, can flexible learning reduce the overall cost in the long term and is a commitment to flexible learning more cost-effective to the institution? Some reports claim cost-effectiveness. However, very few of them are backed up by research or cost analysis. Even though Ling et al. (2001) concluded from their survey that flexible provision tends to make only marginal additional demand on infrastructure costs, it is only confined to institutions with established off-campus or multi-modal arrangements and with arrangements to allow for design and development demands. Ling also pointed out that the surveyed institutions do not normally consider the additional demands on academic staff time. In fact, these demands are satisfied in part at the cost of time spent on research and in part by staff working longer hours (Ling et al., 2001). Johnstone & Poulin (2002) contend that people costs outweigh technology costs when implementing technology-mediated learning. Johnstone & Poulin (2002) also argue that the best solution may not always be the cheapest one. An elaborate cost analysis conducted at the Macquarie University (Ling, English & Webster, 2002) shows that while the total cost based on

traditional face-to-face instruction is A\$30,000 per course per year, the proposed flexible learning format (face-to-face supported by flexible delivery), costs A\$70,000 if it is run as a 1 year project or A\$61,000 per year if the project spans over 3 years, more than twice the cost of the conventional way! In order to sustain the viability of flexible learning, it seems that the flexible learning initiative must be able to attract and “serve” more students in order to justify its existence financially.

In short, there are clear indications that to make learning more flexible, more resources and supports must be in place. However, there is weak evidence (regardless of how theoretically sound it is) suggesting its learning effectiveness. There is also a seeming tension between learning effectiveness and cost-effectiveness. Clearly, more research studies are needed.

Uncovering the Provisos

It becomes a concern from the above brief review that flexibility in many cases seems to become an end, rather than a means to the pursuit of quality learning. The performance indicators (e.g., how many courses are conducted flexibly) typify this kind of ideology. In many ways, flexibility is presumed good and inflexibility bad. Instead of taking that presumption, in this paper, we suggest that flexibility is but one way to approach learning. Its merit cannot be taken for granted and needs further examination. In fact, we contend that all flexibilities come with provisos, pre-conditions, and commitments (or even inflexibilities). An informal meeting with a Flexible Learning team reinforces this conception of provisos. The teaching team commented that their off-campus students were experiencing difficulties when they first tried to make the course content more flexible. One source of difficulty is the lack of a clear structure. This is partly because students progressed at different paces and there were few opportunities for peer interactions. The teaching team later found that spelling out clearly the course content including learning activities, guiding question and assessment components at the beginning of a course greatly reduced the difficulty. The course material pack (which also includes an audio tape) helps students to structure and plan their learning. It also ensures that all students have access to reading materials so that they may participate in discussion more effectively. This course material pack, however, limits the possibility for the teaching team to make formative adjustments to the course based on emergent opportunities. The above example shows that to make some aspects of the learning flexible, some other aspects may have to be pre-determined (and thus made inflexible).

This naturally leads to the following attempt to analyse the provisos underpinning various aspects of flexibility. We did not adopt the model emerging from the study by Ling et al (2001) because their proposed items are not independent from one another. For example, removing fixed time and place constraints could also imply moving time and/or place to suit the learner; providing alternative entry and exit points could also include removing entry requirements. We use the type of flexibility and the instructional media involved as independent variables for our analysis. Table 1 illustrates our attempt to unpack the analysis process.

Aspect of flexibility	Educational benefits when provisos met	Issues	Provisos	Demands on additional resources
Flexible place, same time (Synchronous), text-based (e.g., Chat)	Sense of social presence	Mainly for socialisation, not instruction Lack of sense of immediacy Inability to handle multiple chats well Hindrance to communication Only feasible with small groups	Typing skill Technological infrastructure	Tech: * Time: ** Dsgn: * Admn: *
Flexible place, same time (Synchronous), (AV-based conferencing)	Same as or less than face-to-face	More limited interaction than f2f instruction Still need to report to a fixed broadcast station	Technological infrastructure Technical support	Tech: *** Time: ** Dsgn: * Admn: **
Flexible place, flexible time (Asynchronous) without	Opportunity for self-directed learning	No teacher interaction with students	Student access to learning materials Student motivation Clearly defined course	Tech: * Time: * Dsgn: *** Admn: *

interaction with others			content or structure	
Flexible place, flexible time (Asynchronous) with opportunities to interact	Engage students in in-depth discussion and reflection	Difficult to consult or clarify quickly Difficult to make quick decisions	Technological infrastructure Student access to learning materials Student motivation Clearly defined course content or structure	Tech: * Time: *** Dsgn: *** Admn: *
Flexible pace (starting/exit points)	Providing alternatives for motivated students	Limited student collaboration Lack of sense of community Only feasible with small groups Staff workload	Student motivation Ample staff support	Tech: * Time: *** Dsgn: * Admn: *
Flexible style (e.g., courses offered in different modes)	Catering for individual needs	Staff workload	Ample staff support Available supporting team	Tech: *** Time: *** Dsgn: *** Admn: *
Flexible course level pathway (e.g., content and assessment)	Catering for individual needs	Staff workload Limited student collaboration Lack of sense of community Only feasible with small groups	Modularisation of a course	Tech: * Time: *** Dsgn: * Admn: *
Flexible pathway (Degree components)	Catering for individual needs	Administrative support Policies (e.g., accreditation & cross-accreditation) Financial arrangements	Quality assurance Credibility Academic advisors	Tech: * Time: * Dsgn: * Admn: ***

Tech: Technology Dsgn: Instructional design support
Time: Staff time Admn: Administrative support
* low ** moderate *** high (indicative)

Table 1. An analysis of provisos and benefits of flexible learning

Flexible place, same time (synchronous), text-based. Students in the synchronous approach gain access to the instruction from different places but at the same time. The most common example of a *text-based* approach is the employment of Chat sessions in the instructional activity. Participants could type a short text message and send it to the Chat server. This message will then appear in every participant's monitor. The interaction takes place in almost real time. Studies found that chat sessions are more often used by participants for socialisation purposes. Furthermore, the sense of immediacy that is usually experienced in face-to-face discussion is taken away due to the slowness of typing. Consequently, the flow of communication is hindered. Chat is also limited in handling multiple topics because messages coming from different participants interweave with one another. It requires extra effort in composing messages to make sure which previous message the current message is referring to. Chat sessions must be carefully structured to ensure their instructional value. Typing skills must be a pre-condition for all participants. In other words, this text-based synchronous approach may preclude people with poor typing skills from the learning activity.

Flexible place, same time (synchronous), AV-based. Another synchronous approach to *flexible place* is AV-based (e.g., video or audio-conferencing). Because participants can communicate orally, the typing skill pre-condition as imposed by the text-based approach is overcome. However, technological infrastructure must be in place for this approach to be successful. Video conferencing equipment is still expensive at this stage and the communication is seldom without problems. Therefore, technical support on site when the learning activity is taking place is also essential. The interaction among participants is limited due to the camera position. One must be within the camera "range" to show up on the screen. Eye contact is gone. What is gained using videoconference is the capability to display visual resources for instruction or discussion. Flexibility, which the AV-based synchronous approach provides, is very much limited, because participants still have to report to a fixed studio with the conferencing facility.

Flexible place, flexible time (asynchronous) without interaction with other students. The *asynchronous* approach refers to learning taking place at a flexible time and thus naturally implies learning occurring at a flexible place. This approach usually involves the use of print materials or interactive multimedia on CDs. If there is no

provision for students to interact with others, the design will become distance education in the traditional sense that students receive course materials and study on their own. The advantage of this approach is that it is very flexible and provides students with ample opportunity for self-directed learning. However, because of the lack of interaction with the teacher and other students, success relies heavily on individuals being very motivated. Course materials must be structured very clearly to enable student learning. Much instructional design effort is therefore needed.

Flexible place, flexible time (asynchronous) with opportunities to interact. In addition to the provision of course materials, there can be provision for interactions between the teacher and students or among students. Usually, the interaction is by means of the Internet and its text-based discussion or e-mail functions. This approach is generally more flexible than the synchronous approach, but raises different issues. For example, it does not permit real time consultation and thus students are not able to get something clarified quickly. This, at times, could become frustrating, because “one simple clarification in time could save nine unnecessary misinterpretations”. Students and lecturers always have to wait for the majority to come online before a decision can be made. So, teachers may only “fine tune” the course to a very limited extent. Consequently, the course content and structure must be very clearly spelt out before the commencement of a course, that is, “inflexible” content and structures. In addition, teachers need to make sure all students have access to the learning materials (the issue of digital divide); and the success of this approach is also heavily dependent on motivated students.

Flexible pace (starting/exit points). In terms of flexibility in learning *pace*, this usually refers to situations where students can start a course at a flexible time of the year and can pace themselves through the course accordingly. Usually, Masters and Ph.D. dissertations operate under this model. Issues related to this approach include the very limited opportunity for students to collaborate and the lack of sense of a learning community because of the limited interaction with peers. Students also need to be strongly motivated to finish the course requirements. Because this approach is highly individualised, the demand on faculty time and efforts is tremendous. Therefore, scalability is an issue. It may not be a realistic expectation for this approach to work equally well with a large number of students.

Flexible style (courses offered in different modes). Flexible style means the course is offered in different modes. For example, not only does the lecturer give lectures, but course materials are also structured into multimedia CD-ROM to allow for student revision. Not only materials are presented in print format, but also are they in audio, video or digital formats. The advantage of this flexible style is that the instruction caters for individual needs and learning styles. However, since it is offered in different modes, it is equivalent to offering different courses and the demands on staff time, instructional design and technical support are very high.

Flexible course level pathway (content and assessment). A flexible pathway at the course level means students have choice over the combination and the sequence of the content to be learned. This can sometimes also imply choice over assessment modes. The advantages and disadvantages are similar to flexible pace. In addition, the course must be modularised to enable the flexible pathway. This is sometimes not feasible for subjects that are highly integrative in nature.

Flexible pathway (degree components). A flexible pathway at the degree conferment level involves flexible recognition of students’ prior learning and working experience and potential to study higher level or alternative courses. The major advantage is again in catering for individual needs. However, this imposes challenges in terms of quality assurance and accreditation of what is learned. It also requires major changes to existing policies such as accreditation and cross-accreditation mechanisms and imposes administrative complexity on the financial arrangements. Sufficient academic advisors are also essential.

From the above analysis, it can be seen that every form of flexibility comes with provisos before we can begin to enjoy the educational benefits of flexible learning. The tug between learning- and cost- effectiveness is also quite evident. Issues related to each type of flexibility warrant further investigation.

Summary

The discussion in this paper can be summarised into the following points:

- Flexible learning means that students have flexible access to learning experiences in terms of at least one of the following: *time, place, pace, learning style, content, assessment and pathways*;

- There is clear evidence that flexible learning in most forms requires additional resources: *staff time and instructional design, technical, and administrative supports*;
- There is weak evidence that making learning flexible will enhance learning;
- Flexibility comes with provisos. By making one aspect of learning flexible, other aspects may have to be more structured (or inflexible);
- Flexibility may not necessarily promote learning, whereas inflexibility may not necessarily inhibit learning;
- E-learning can be flexible or inflexible depending on how the instruction is designed;
- Flexible learning should be seen as a means not an end to quality learning.

It follows that flexibility is one of the tools that higher education institutions may use to meet their goal (charter obligation) of providing high quality learning to their students. Education institutions may wish to use flexibility in order to achieve such things as increasing student numbers, making courses more easily available to students, and enabling campus bound students to manage their time more flexibly. Should any institutions wish to increase flexibility, it will need to consider the implications in terms of resources and expertise to ensure that its primary goal of providing quality high level education can be met.

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