

Using Assessment to drive Retention and Achievement upwards

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Abstract

Identifying what the student really wants from their course provides a method of controlling the learning process. We contend that the prime student driver is the achievement of their qualification by gaining marks and not learning itself. We examine the effect of tying attendance directly to the achievement of marks. It is found that attendance improves from around 60% to 98.5%. Further methods are discussed which might have a direct affect on retention and achievement based on the identification of student wants.

Key words

Attendance, assessment, achievement, retention.

Introduction

The amount of information that students need to assimilated is often so vast and varied that the simple volume of it makes it difficult to attain. Students therefore evolve coping strategies that enable them to reduce the amount of information to a manageable level by distinguishing between what is important and what is not. Importance is defined as what is necessary for gaining the qualification as opposed to what is necessary for learning the subject itself. Some students seem able to pick up the clues as to what is important, while for others it takes longer.

For many students the goal is gaining a qualification, while learning is merely the means to that end, rather than the end in itself. As a consequence, many students are not fully engaged with learning. Learning is not important, but getting through the course is. And the passing of the course is not the same as learning the subject. What motivates the majority of students is the need to write assignments and to pass exams in order to get their qualification so that they can get on with the next stage of their life. That is to say, they are not motivated by the acquisition of knowledge or learning.

Students who seek only the qualification, irrespective of what they learn, seek to get to their goal by the most efficient route in the same way as a runner seeks to get to the end of the race in the fastest possible time. They alter their 'game plan' according to what they see they need to do in order to succeed.

For these students the important clues are those concerned with 'simply getting through the course' and they pick up on what Snyder (1971) calls the "hidden curriculum" – the stripped down version of the course that contains what they need to know to pass, and nothing else. The hidden curriculum is defined by what is assessed, not by what is on the syllabus. Students don't need to learn what isn't being assessed in order to gain the qualification. So the students who can pick up the clues about what is important, and focus down on the relevant, hidden curriculum can discard the rest and make their task more efficient and relevant to their needs.

Students can be quick at discovering precisely what they need to do and what they do not need to do to pass a course. Often the more successful students will discover this better than others and minimise their work. And they will discover for themselves their own rules concerning what they do and don't need to do. Discussions with my own students have revealed the following comments¹:

"You don't need to know everything",

"it's not important to understand things – just write about it"

"I don't need to attend lectures to pass"

"the lecturers give you what you need, you don't need to read around the subject"

These comments may not necessarily correspond with what the lecturer feels they need to do to pass the course.

There are those who might think the student is circumventing the system in adopting this approach. However if the hidden curriculum does not match the published curriculum then this is a fault of course design, not of the students and it is the responsibility of the course team to ensure that the course they have designed will provide high grades to those who have learned the subject, not those who have happened to guess the questions correctly.

Using the Assessment Driver

For most students, assessment is the main driver of their learning (Race 2004).² The same point is made by Peter Knight's that '*assessment is learning because it defines what students will take seriously*'³

There are other needs which the student has, such as the often neglected need to learn how to learn⁴ (Rogers 1994) but these are often not perceived as important to the student as they are not directly connected to attaining the qualification. Consequently they are ignored and all the emphasis is placed on passing assessments as the primary goal of the student. Knowing that, in many cases, the true student goal is not learning but achieving the qualification is an important step in Identifying methods of controlling the learning process. By manipulating the constraints, the learning process can be tailored and controlled. We can therefore use these student needs to drive the learning process.

Investigation and method

This understanding has led to an investigation into directly linking student attendance with assessment marks. The question was raised concerning the effect on attendance by directly attaching marks to it. The aim was to see if by applying these principles they would have an effect on learning and particularly on retention and achievement.

The method adopted was to tie assessed marks to attendance on a particular unit of a course. The course used was the Foundation Degree in Business and Information Technology (BIT) which is a two year course with six units in each year. In the final year a group based project is undertaken as one of the six units.

Weekly attendance is required on all units including the group project unit. However on this unit the attendance was linked directly to the award of marks for the unit. This was written into

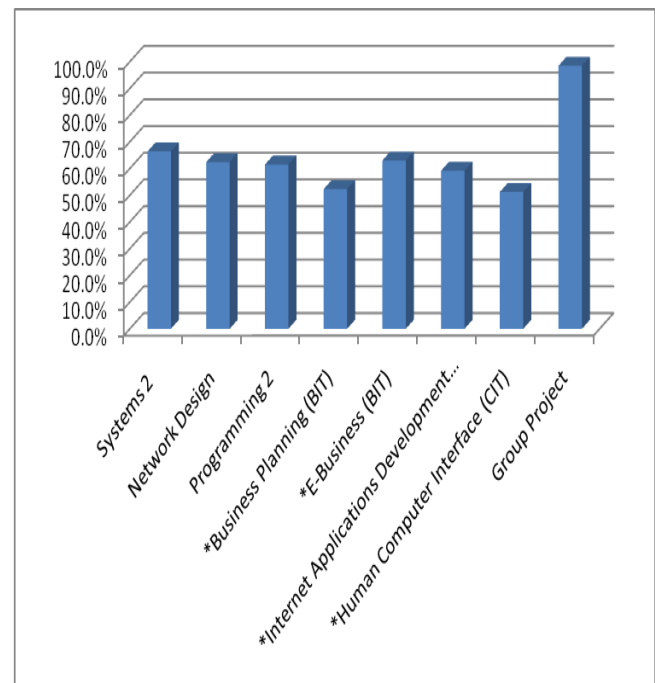
the assessment strategy of the unit definition which required weekly attendance at the project review meetings between the students and the lecturer. One mark was to be deducted for every student who missed a session per week. Deductions would apply to the whole group as there was only a whole group mark awarded. The loss of such marks could be considerable and given that most groups had 4 students, if one student per group was missing from the scheduled meetings each week on average that would result in a loss of 33 marks over the entire year, with corresponding loss of more marks for more absences. The penalties for non-attendance were therefore seen as real and potentially severe.

Deductions were only made for unexplained absences and students were allowed to be absent if they informed the lecturer prior to session or in the case of emergencies provided evidences such as a doctor's note after the event.

The group project was the only unit that these restrictions applied to. This meant that a an attendance comparison could be made for the same group of students across ordinary units and the mark related attendance project unit.

Findings

The average attendance at the group project reporting sessions was 98.5% while in contrast the average attendance at seminars across all other units was between 50-65%.



This represents between 48% and 33% increase in attendance to levels which have been previously unobtainable by other methods

Interestingly the attendance on other units was exactly comparable with attendance on those units in previous years which remained unchanged at approximately 50-65%. Only the group project showed improved attendance and that improvement was limited to that unit only and had no effect on the attendance on other units.

Proposals for Further Discussion and Investigation

Phil Race (2004) contends that 'assessment is broken in Higher Education'⁵ and needs fixing. Assessment needs to be made fit-for-purpose, so that we measure what we really should be measuring and assess evidence of what students have learned, not just what we have tried to teach them.

With this in mind we make the following proposals should drive the learning process.

1. Courses should be designed around Assessment.

Assessment should be put at the front of the design of learning process, rather than at the end of it. Derek Rowntree⁶ in his *Developing Courses for Students* declares that "it is vital to plan assessment with one's whole course in view" It is also the central plank in Peter Knight's thesis that 'we can influence what students learn and why through the design of assessment systems. This puts assessment at the heart of teaching because the assessment tasks we set will shape the experienced curriculum.'⁷

This means the published curriculum and the hidden curriculum⁸ (Snyder B. 1973) should be identical. If parts of the curriculum are not assessed then they should not be in the curriculum. The idea of teaching a larger subject area than that which is tested leads to students trying to guess 'what will come up' and the most successful guessers will be our most successful students. It may be argued that some subject areas are too large to test completely. But if that is the case then those subject areas should be reduced in size.

The way that this can be done is by replacing Intended Learning Outcomes ILOs with Assessed Learning Outcomes ALOs. ILOs represent the

wider curriculum while ALOs represent only the hidden curriculum.

Usually the ILOs are determined from the learning needs of the course and the assessment is derived from the ILOs. I am arguing that this should be reversed. The needs of the course should determine the assessments required in the first instance and then these can be quantified as ALOs or assessed learning outcomes

The process would involve checking the ALOs against the aims of the course and if not satisfactory readjusting the assessment and repeating the cycle until ALOs agree with aims.

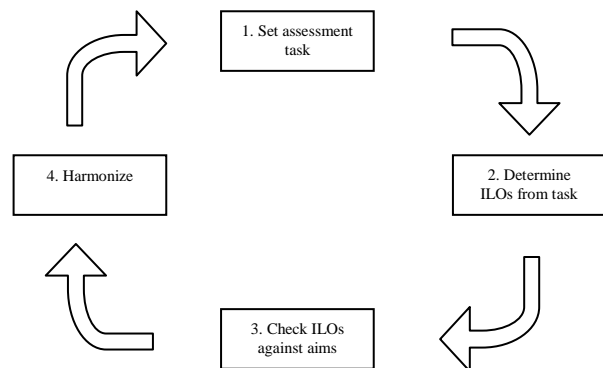


Figure 1: Assessment cycle

The idea that assessment can shape the learning process is an important one. Assessment defines the hidden curriculum which students perceive is all they need to learn in order to succeed. And if they perceive a difference between the published course content and the examined course content, they will jettison those areas which are irrelevant to their examined success to enable them to obtain "the highest grade with the least expenditure of effort."⁹

2. The assessment process should be completely open and transparent to the student.

It is an essential part of 'driving learning through assessment' that the students are fully aware of the assessment procedures. In some courses, particularly those externally marked, the marking scheme is sometimes kept a closely guarded secret not only from students but from teachers as well. It may be appropriate from time to time however to question whether this really is in the best interests of the learning process.

Students must be clear about what they have to produce, and fully informed of assessment

standards and marking schemes. There is of course a danger in this. The more guidance given, the less opportunity there is for students to show they don't need such guidance.¹⁰ However more students are in danger of not reaching their potential through ignorance of what the lecturer requires, than by ignorance of the subject.

3. The assessment questions should be public and made available to students before the exam.

This is the natural outcome of using assessment to drive learning and ensures that the right material is learned. The earlier they are published the better the time the student has to learn the material. There is no reason why for example closed book exam questions should not be published at the start of the course.

The main reason for keeping exam questions secret is to enable course designers the luxury of publishing a large curriculum and only assessing a part of it. Secrecy tries to ensure that students learn the larger curriculum and not just the smaller (hidden) tested curriculum. If the designer intends to assess the full curriculum then secrecy is not required and the questions can be published.¹¹

It might be thought that one problem of prior publication is collusion. Students could work out the answer together in preparation for any exam. However, there is nothing wrong with this, provided students are tested individually. This is just another way of learning – an informal student tutoring process, if you like.

Bear in mind that it is common practice for many lecturers to give students broad hints on the nature of the coming questions any way, often through a zealous desire for their students to succeed. Students who can pick up on these clues can often do far better than those who do not. But in this case, who has learned the most? And whose learning has been most relevant?

4. Assessment questions should be written so as to guard against superficial learning.

Marton and Saljo (1976) have pointed out that approaches to learning involve the processing of information and that this can take two forms¹². There are those who try to memorise information and those who try to understand the information. This characterized as a surface approach (memorizing) or a deep approach (understanding). Paradoxically those who seek to understand have better recall than those who only memorise. This is

a fundamental result that has influenced teaching away from 'learning by rote' methods.

Learning by rote is the danger of prior publishing. So questions should require the application of deep learning and not just the regurgitation of memorised facts or perfect answers. This is difficult to do. Maybe the only way to do this is to assess a skill as well as knowledge – as in maths, that way the application of knowledge is assessed not just the presentation of the knowledge itself.

These two learning modes each have their uses. The superficial approach is adopted by students who approach examination work where the regurgitation of detailed information over a short timescale is the sole requirement. This however will be of no use in other types of work such as project work where the purpose of learning is to become a practitioner. An understanding of the subject is required in order to produce deliverables for clients, with assessment based on the deliverables.

5. Set deadlines so as to drive learning

One of the key assessment drivers is the setting of deadlines. Work increases as deadlines approach. A greater amount of work is done proportionally the closer the deadline approaches. There are a number of factors which influence this and more work would need to be done to establish the exact relationship. However, this is likely to be an exponential relationship as the amount of work done is proportional to the fraction of time remaining.

One large assessment may require only one deadline but because of the deadline rule most students will do little work until the deadline has approached which may not be the best use of time. Setting more deadlines with smaller tasks may make the use of time (and consequently the learning process) more efficient. Figure 1. The most efficient approach might be setting achievable tasks to weekly deadlines.

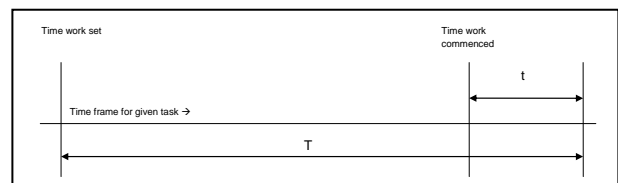


Figure 2: Set and expected times for task completion

If T is the time set by the lecturer for the task to be completed, and if t is the time which the student perceives the task will actually take (amongst possibly many other tasks he has to do), then the ratio of t/T will give a measure of how close the teacher and student perceptions agree and how effective the deadline is for maximizing learning time. As

$$t/T \rightarrow 1$$

deadlines become more effective

Since work increases as deadlines approach it is a simple matter to govern the quantity, the timing and the spread of work towards learning by an appropriate control of deadlines.

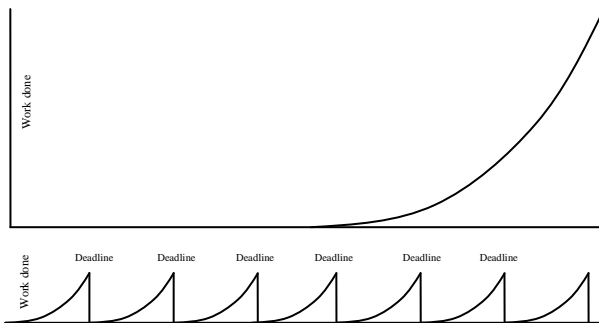


Figure 4: Single task with one deadline versus multiple tasks with multiple deadlines

Crudely put, the teacher can increase the amount and consistency of learning by increasing the number deadlines. However these deadlines must be both real and realistic.

By real, I mean that they must have real consequences if they are not met, such as loss of marks, failure of unit or some other real penalty. The harsher the penalty the higher the degree of compliance.

By realistic I mean that they must be achievable by all students. Deadlines can be set once per term, once per month or once per week – but the task must be easily doable in that time frame. The simpler the task the higher the degree of compliance. In the example above the deadline was weekly, but the task was merely attendance which all students could achieve. Large tasks will need longer time frames. Assessment deadlines in particular must be carefully matched to the assessment.

Conclusion

Assessment related drivers have been shown in one instance to have a large affect up attendance. However there are a number of drivers which are associated with assessment which remain to be investigated.

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- ⁹ Snyder, B. (1973) *The Hidden Curriculum*. The MIT Press. Cambridge
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- ¹¹ There are subjects where this may not apply such as mathematics, for the reason that you are not just assessing knowledge but also a skill in the manipulation of the symbols.
- ¹² Marton, F. & Saljo, R. (1976) On qualitative differences in learning I. Outcome and process. *British Journal of Educational Psychology* 46, 4-11. [This is a seminal paper as Marton & Saljo were the first researchers to make a distinction between deep and surface approaches to studying]