**Learning for Doing: Student Engagement as a Necessity for Practice.**

**T. McLernon**

University of Ulster, Newtownabbey, N. Ireland, [t.mclernon@ulster.ac.uk](mailto:t.mclernon@ulster.ac.uk)

**Abstract**

The impetus for this study was instigated by recent comments from some employers of graduates in the built environment discipline during a discussion on the necessity for education for sustainable development for participation in a global economy. The comments inferred that graduates “cannot do anything and we have to train them”. Further investigations suggested that a reason for this asserted lack of practical competence may be linked to inadequate student engagement during the three years at university. The thesis behind this study was derived from these further investigations: it is that students do not engage sufficiently with their studies to enable them, on graduation, to ‘hit the ground running’. Student engagement is a term that may be interpreted in several different ways and may project different meanings. Trowler and Trowler (2010) conducted a student engagement literature review that presented a “matrix of areas covered by the term ‘student engagement’”. They also identified “3 axes along which student engagement literature can be located, viz. individual student learning, structure and process, and identity”. ‘Engagement’ for the purposes of this study followed the axis of individual student learning. In addition, ‘engagement’ was qualified and separated according to the dimensions proposed by Trowler (2010), drawing on the work of others and identified as: behavioural engagement, affective engagement and cognitive engagement. The purpose of the study was to derive and analyse the factors that contribute to justification for this thesis with a view to the ultimate construction of a reflective tool with which students may self-assess their own engagement. Data for the study were collected from records, by observant participation with students, supported by individual conversations and focus group sessions with a sample of students from the built environment disciplines. These data were analysed in conjunction with data obtained from six tutors on built environment programmes and a framework of findings was built. The conclusions demonstrate that engagement could be improved along the axis of individual student learning and according to the three dimensions of engagement. Whether improvement of such engagement would lead to improved practical competencies upon graduation was not empirically included in the study but such conjecture should lead to healthy discussion at the conference. Discussion of this paper at the conference will inform the construction of a reflective tool with which students may self-assess their own engagement.

1. **Introduction**

*Knowledge can be communicated, but not wisdom.  One can find it, live it, be fortified by it, do wonders through it, but one cannot communicate and teach it.* (Hermann Hesse)

The impetus for this study was instigated by recent comments from some employers of graduates in the built environment discipline during a discussion on the necessity for education for sustainable development for participation in a global economy. The comments inferred that graduates “cannot do anything and we have to train them”. These comments caused some critical debate. On one side the argument was that: ‘universities, surely, are there to prepare students to graduate and take their place in the working environment.’ The counter proposal was that: ‘graduates may be “academically educated” but not adequately educated or trained to the level expected by employers’. As the programmes associated with the built environment discipline are vocational ones, the debate was notable and provoked further debate and investigation. These further investigations suggested that a reason for this asserted lack of practical competence may be linked to inadequate student engagement during the three years at university. The thesis behind this study was derived from these further investigations: it is that students do not engage sufficiently with their studies to enable them, on graduation, to ‘hit the ground running’.

There is a substantial literature base on the subject of student engagement. Helpfully, for a review of research on student engagement commissioned by the Higher Education Academy (HEA), Trowler, V (2010) and Trowler, V, and Trowler, P. (2010) have recently drawn together the international literature on the subject. It should be stated that the main focus of the HEA’s interest in student engagement was on students being engaged in the shaping and design of the curriculum; however, owing to a paucity of literature in this area, other aspects, notably that relating to ‘individual student learning’, dominate the evidence reported. The conceptual framework for this study draws heavily on this work.

* 1. **Rigidity, Conformity and Uniformity**

I would propose that innovation, enterprise, forward thinking and actions are founded upon risk-taking, mistake-making, flexibility and quick reaction time. I’m not sure that these principles adequately apply to the institutional processes of higher education. It is, perhaps, the promotion of wisdom that is missing from curriculum design in the vocational courses offered in universities. Baty (2011, p5) recently argued that graduates today are missing the key component of wisdom, necessary for entrepreneurship and advancement, and that distinguishes higher education from training for the workplace. Baty sums up his argument by saying: “The wise person can handle real world problems – those complex, ill-defined challenges whose contexts and parameters shift constantly”. So a question to leave hanging for the duration of this paper is: “Are we, in academia, too closely bound by curriculum, conventions, rules procedures and the fear of possible litigation to allow for the promotion and embedding of those key entrepreneurial attributes of wisdom, risk-taking and mistakes-making?” As Mark Twain stated:

## *“We should be careful to get out of an experience only the wisdom that is in it, and stop there, lest we be like the cat that sits on the hot stove lid. She will never sit down on a hot stove lid again and that is well, but she will never sit down on a cold one either”…..* (Mark Twain)

1. **Methodology**

Data for the study were collected from records, by observant participation with students, supported by individual conversations and focus group sessions with a sample of students from the built environment disciplines. These data were analysed in conjunction with data obtained by semi-structured interviews from six tutors on built environment programmes and a framework of findings was built.

1. **Student Engagement; the Literature**

The literature revealed that student engagement is a term that may be interpreted in several different ways and may project different meanings; for example, Kuh (2009) explained it thus:

*‘The engagement premise is straightforward and easily understood: the more students study a subject, the more they know about it, and the more students practice and get feedback from faculty and staff members on their writing and collaborative problem solving, the deeper they come to understand what they are learning and the more adept they become at managing complexity, tolerating ambiguity, and working with people from different backgrounds or with different views.’*

Trowler (2010, p8) extracted several distinctive definitions from the international literature. The common factor in the definitions was the express or implied references to ‘outcomes’ and the correspondence of the students’ input to the achievement of optimal outcomes. The Australian Survey of Student Engagement (AUSSE) supports universities in their mission to engage students in ways that produce high quality outcomes. It ‘*stimulates evidence-based conversations about students’ involvement in activities and conditions that empirical research has linked with high quality learning and development’* (AUSSE, 2009, p8). The debate leading to this study inferred a meaning for student engagement that incorporated expressed adjectives such as commitment, participation, priority, motivation and management. Whilst not expressed, the discussion implied enhanced outcomes from such student engagement that would lead to readiness for work. This study uses Hu and Kuh’s 2001 interpretation of student engagement as being apt; i.e.: *‘the quality of effort students themselves devote to educationally purposive activities that contribute directly to desired outcomes’* (Hu,and Kuh, 2001, p3; in Trowler, V. 2010, p9)

Trowler’s and Trowler’s (2010) student engagement literature review presented a “matrix of areas covered by the term ‘student engagement’”. In order to make sense of this matrix, they also identified as foci of engagement, “3 axes along which student engagement literature can be located, viz. individual student learning, structure and process, and identity”. The axis of individual student learning included:

* Student attention in learning;
* Student interest in learning;
* Student involvement in learning;
* Student (active) participation in learning;
* ‘Student-centredness’ – student involvement in the design, delivery and assessment of their learning.

The axis of structure and process focused on student involvement with governance, in committees and as representatives at course, department and faculty levels, and other such matters of structure and process. The axis of identity dealt with matters including:

* Engagement towards student individual ‘belonging’;
* Identity attached to representation;
* Engagement of groups such as ‘non-traditional’ students.

‘Engagement’ for the purposes of this study followed Trowlers’ axis of individual student learning. In addition, ‘engagement’ was qualified and separated according to the dimensions proposed by Trowler (2010,), drawing on the work of others and identified as:

* behavioural engagement: students who are behaviourally engaged would typically comply with behavioural norms, such as attendance and involvement, and would demonstrate the absence of disruptive or negative behaviour;
* affective engagement: students who engage emotionally would experience affective reactions such as interest, enjoyment, or a sense of belonging; and
* cognitive engagement: cognitively engaged students would be invested in their learning, would seek to go beyond the requirements, and would relish the challenge. (Trowler, 2010, P7).

The study also drew on these three dimensions.

Trowler and Trowler (2010) concluded, inter alia, that a ‘*substantial, robust body of evidence exists to support assertion that individual student engagement in educationally purposive activities leads to more favourable educational outcomes*’. For pragmatic support of this conclusion, the work of Schön (1983) relating to reflection-in-practice and reflection-on-practice has been significant because it deals with reflection and its role in professional life. Reflection-in-practice is analogous to ‘thinking on our feet’, a necessary graduate attribute. It entails building new understandings to inform one’s actions in the new situation. Reflection-on-practice is a process that happens later. It enables us to spend time exploring why we acted as we did. These two connected processes are essential graduate attributes that connect academia with professional life. Reflection develops and enhances practice and acts as a catalyst for the positive contribution of tacit knowledge thus enabling the practitioner to develop and extend the knowledge available to the profession. Reflection incorporated in the higher education curriculum should enhance learning but, critically, add to the skills and attributes of the graduate that will enable graduates to immediately contribute to the workplace through individual problem-solving and decision-making.

1. **Student (Dis)Engagement; the Practice**

Trowler (2010, P8) illustrates examples of positive and negative poles of engagement separated by a gulf of non-engagement in a tabular format represented below.

**Table 1: Examples of Positive and Negative Engagement.**

|  |  |  |  |
| --- | --- | --- | --- |
|  | POSITIVE ENGAGEMENT | NON-ENGAGEMENT | NEGATIVE ENGAGEMENT |
| BEHAVIOURAL | Attends lectures, participates with enthusiasm. | Skips lectures without excuse. | Boycotts, pickets or disrupts lectures. |
| AFFECTIVE | Interest | Boredom | Rejection |
| COGNITIVE | Meets or exceeds assignment requirements. | Assignments late, rushed or absent. | Redefines parameters for assignments. |

Academic discourse, both formal and informal and within and amongst institutions suggest that there is disengagement or non-engagement amongst a significant number of undergraduate students. The issue does not, anecdotally, apply to postgraduate students. There are indicators that accord with the tenets of table 1 that evidence this suggestion. Attendance records for 60 year 1 students, 150 year 2 students and 85 final year undergraduate students on selected modules and courses in the built environment discipline were analysed. The evidence corroborated much of what was posited in the academic discourse. There is a clear difference in engagement practice by final year students and those in first and second year. Attendance at, and participation in, lectures and other classes and learning activities is substantially better in final year, The final year students demonstrate interest and a willingness for dialogue, questions and study. Whilst in all years the trend is that almost all assignments are submitted close to or on the deadline date, assignments submitted by final year students are presented in a more professional manner, better accord with the brief, and are submitted more timeously, than those students in first and second year. This is a particularly apparent phenomenon amongst those students who have spent the penultimate year on industrial placement.

Attendance records demonstrated that a significant proportion of students fail to attend regularly. No modules attracted 100% attendance. In one first year module, attendance at small group tutorials was lower than 30%; a significant number of students did not attend the tutorials after week 1. It should be recognized that this represented a snapshot in time and confined to selected modules and courses and, because of this approach, these interpretations and comments are not held to be robust or generalisable, but rather, indicative of an issue.

Discussions with first and second year students showed quite a disparity of attitudes, beliefs and actions. At the positive end of the scale, the students attended well, were content, had few negative comments to make and, generally found few issues. Some, at this end of the scale commented that they would prefer more contact time and more challenging activities. At the other end of the scale, the word ‘boredom’ and ‘boring’ was used by many students with a recurring comment such as “I can’t see the point of…”, in reference to a subject and gave a variety of reasons for non-attendance. Discussions with final year students, who had undertaken industrial placement, revealed less of a disparity of attitudes, beliefs and actions with the main body of students situated towards the positive end of the scale.

It was clear from the data obtained from both students and tutors that when students are ‘occupied’ and ‘doing something’ and ‘can see the relevance of’, they demonstrate more engagement: e.g. practicals, such as land surveying, laboratory work, design work, computer aided design and problem solving, with a practical outcome, tend to better engage students and students ‘enjoy’ such activities. Positive engagement subsists. There are no indicators that negative engagement is an issue. Final year examination results over the last five years, however, do not indicate a worsening. Despite this factor, there are indicators of increasing non-engagement. The factors that contribute to this non-engagement were extracted and interpreted from the data obtained from students, from traits observed by tutors and informed by observant participation and summarised to include the following.

**4.1 From Students** – the following comments were given more emphasis by first and second year students than by final year students.

Timetabling – students are reluctant to attend for brief periods of time. They interpret the timetable as their structure for learning. They prefer to attend in blocks. If the timetable requires only one or two hours attendance on a day, then attendance figures drop significantly. If there is a long period of time between classes, students tend to choose which classes to attend in order to not have to ‘wait about’. Time spent at university that does not consist of timetabled classes is interpreted as ‘wasted time’; it is not regarded as an opportunity for structured, independent learning.

Work Commitments – the greater proportion of students has part-time jobs. Work commitments generally take priority over university commitments; excluding key commitments such as examinations.

‘Boring’ Lectures – some classes were regarded as less than valuable and summed up by the phrase ‘boring lectures’. Some probing revealed that common elements relating to this category consisted of: large classes; a combination of different courses in the class; too long (in excess of one and a half hours); and one-way communication.

Lack of relevance – some students determined that some subjects were not relevant and therefore chose not to engage with that subject.

Forty Per Cent – the aim a significant proportion of students was to ‘pass’. A pass requires a performance graded at forty per cent. The underlying issue of concern at this approach is that such an approach leads to surface learning as conceived by Marton and Saljo, (1976, 1 & 2) and developed by others.

No fun – this category took on a variety of guises but the underlying matter related to not enjoying learning. Several factors contributed to ‘no fun’. Several have been included in the foregoing but other factors were: inactivity, and isolation due to lack of conversation or opportunity to ‘make friends in the process’.

**4.2 From Tutors**

Last-minute approach – no matter what deadline is set, and/or the amount of time given to complete an assignment, there is a ‘last-minute approach’ by which students do not programme their work to give sufficient time to research and write up their work. “The ‘norm’ is to leave everything until close to the deadline and invariably the work is not as good as it could be and/or the deadline is not met”.

Little dialogue – the nature and structure of many classes is not conducive to dialogue amongst students and with tutors. Practical classes such as land surveying, laboratory work and design elicit more conversation and questions that assist with learning. Small group tutorial classes are designed to help understanding through dialogue; however, there are two, related, issues associated with these classes: the first is that attendance is poor; the second is that a large proportion of those who do attend are ill-prepared or not prepared at all.

Reluctance to read – there is a patent reluctance to read on the part of students. Whilst each student is given precise information on essential reading and recommended reading for each module studied, the evidence suggests that little reading is undertaken except that which is necessary to complete an assessment. Some students lack the skills necessary for effective reading and for critical reading. As a result, students sometimes struggle to incorporate their reading into their written work. Students accept what is written and rarely challenge academic texts or advance their own arguments. The use of search engines, particularly ‘Google’ accentuates this issue and often key knowledge is ignored In preference to that which is readily and easily obtainable.

Literacy and numeracy skills – there is a concern amongst tutors for the literacy and numeracy skills with which students enter university. This is evident from report writing, essays and from assignments requiring basic calculations. Correctness and precision are key attributes of the graduate for the world of work.

“Do only that which is assessed” – learning is compromised because students tend to only do that which is assessed; “if it’s not assessed it won’t be done”. Such a culture restricts the curriculum and the learning, driving an assessment strategy that is becoming increasingly focused on getting students to engage.

Virtual Learning Environments (VLEs) and Information and Communications Technology (ICT) – advances in technology in recent years have provided great opportunities to supplement and/or replace some ‘traditional’ teaching, learning and assessment practices. On the one hand, such assistance is very beneficial to the processes and to the learning outcomes. On the other hand, there can be a tendency for students to download material from VLEs but not engage with it.

An overall summary observation was that tutors implied that students would benefit from learning how to study at key periods of their university programme and to incorporate into the curriculum a mechanism for self-assessment.

1. **A Reflective Tool**

A reflective tool that demands and encourages students to engage in the processes of reflection-in-action and reflection-on-actions at regular intervals might impact positively on student engagement. A preliminary, pragmatic model below is proposed as a starting point for discussion at the conference.

##### **REFLECTIVE LOG**

You are required to maintain a weekly log, of about ***200 words***, which fully records your STUDY activities, ***outside of*** the classroom, for this module. The log book should use the format as laid out below. Reference material used, with Harvard System referencing, discussions, web sites etc. should be fully recorded in the activity section with a brief reflective comment on that week’s work on this module. The log should be available for inspection, advice and discussion during tutorials sessions ***each week.*** You should maintain your log on a ***daily basis*** and give careful thought to your studies associated with this module.

**REFLECTIVE LOG Week No:\_\_\_\_\_\_\_\_\_\_**

**ATTENDANCE: LECTURE: Yes / No SEMINAR: Yes / No**

**TUTORIAL: Yes/No**

DATE ACTIVITY TIME

**REFLECTION ON YOUR ACTIVITY (100 words)**

Figure 1: Reflective Log Model for Discussion

1. **Conclusion**

**Non-engagement by students, with its different definitions and connotations, is perceived by academics as an issue in higher education today. The concern should be that such non-engagement leads to graduates who do not possess the attributes, attitudes, skills, knowledge and understanding that ensure the productive advancement of society.** There is sufficient anecdotal and empirical evidence to suggest that employers are becoming increasingly adversely critical of the skills, abilities and knowledge of graduates. The concluding argument of this paper is that curricula, teaching and learning methods, and assessment strategies used in universities focus too much on knowledge which is abstract and out of context. Society is built upon education. Those key graduate attributes of imagination, creativity, communication, teamwork, endeavour and reflection that require engagement and which are essential contributions to an advancing society, are thereby being diminished. A curriculum that emphasises wisdom and reflection may produce graduates *ready to do business*.

**6.1 Concluding Comment:**

This paper has intentionally placed emphasis on the negative comments and issues surrounding the engagement issue. The author recognises and applauds the positive features of higher education, the high standards of our higher education and the rigour with which those high standards are applied to produce excellent graduates. The intention of this paper was to provoke discussion and argument and to highlight issues. In a similar fashion, the word ‘student’ has been used throughout the text. It is not the intention that this word universally includes all students but rather is to be interpreted as illustrative of some traits of students.

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