Bridging the Theory-Practice Gap: Using Innovation Centres in Teaching Non-Business Undergraduate Students

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Abstract

This paper contends that joint efforts between higher education institutions and innovation centres can be beneficial in linking theory and practice for non-business students. However, the gains from such collaborations are not without challenges. The primary purpose of government investment in on-campus innovation centres is to encourage idea generation and development among entrepreneurial individuals who are interested in establishing new businesses. Our research involves companies based at one specific Irish third-level academic institution.

This paper evaluates the interactions between the client companies and students in the marketing communications module. The research question addressed in this research is: How can innovation centres assist in bridging the gap between theory and practice in the teaching of marketing communications to non-business undergraduate students? The study makes a contribution to research by building a procedure for engagement between non-business undergraduate students and innovation centres which can be replicated in other pedagogical contexts.

1. Introduction

This paper explores the challenges for students and companies in on-campus innovation centres in working together. The mutually-beneficial aim of such collaboration is to bridge the gap between theory and practice among students. The interactions described in this paper are focused on one specific third-level academic institution in Ireland. This innovation centre has two goals: to encourage the foundation and advancement of new market-driven and information-based enterprises in the region and to create solid connections between the college and the wider business environment. The honours level degree in a specific non-business discipline incorporates a module on marketing communications. The main purpose of this module is to develop students' knowledge of effective marketing strategies and theories to enable them to create marketing plans appropriate for industry.

This paper focuses on the research question: How can innovation centres assist in bridging the gap between theory and practice in the teaching of Marketing Communications to non-business undergraduate students?

The first section of this paper presents varied definitions of innovation centres. This is followed by a brief description of the emergence of innovation centres with connections to third-level academic institutions in Ireland. Next, the structured process developed as part of the collaboration between the centre and the lecturer is examined. The findings from the research are then presented. The final section of this research paper involves a presentation of the research contributions conclusions of the research.

2. Innovation Centres Defined

Innovation centres “are places of ... collective learning not only for the entrepreneurs but also for external stakeholders who come to appreciate the entrepreneurial reality better.” [1].

Such innovation centres have traditionally been defined in terms of what they do, and what they are trying to achieve [2].

Attempting to define an innovation centre makes it clear that the term is not an easy one to pinpoint. As Aernoudt notes, it is an ‘umbrella word’ covering a range of different facilities [3].

2.1. Emergence of Innovation Centres in Ireland

Since 1997, Enterprise Ireland has contributed around €50 million to the development of Innovation Centres based predominantly on campuses of third-level academic institutions across Ireland [4]. These are situated in both Universities and Institutes of Technology, with sixteen linked to Institutes of Technology and four to the Universities [5]. Such centres give help and administrative support to their client companies [6].

The mission of the innovation centre in the college where the research took place is: To support the development of new enterprises in the region by providing incubation space and business development support for the nurturing of new ideas and the commercialisation of applied action research.

Now we will outline the structured process developed as part of the collaboration between the innovation centre and the lecturer.

3. Structured Process

Building on previous work [7, 8], the marketing communications module taught to the non-business students can be described in a number of steps which are presented in Figure 1 together with the high-level timeline.

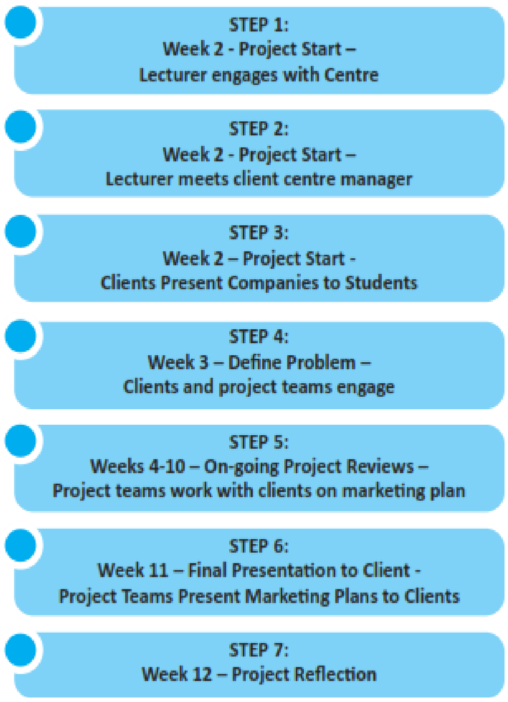

Figure 1. Steps and timeline [7]

- Step 1: The lecturer makes contact with the centre management to establish possible projects in advance of the commencement of the term enquiring if a small number of companies would be willing to take part in the projects.
- Step 2: The lecturer meets with centre manager and provides a written outline of the module objectives, requirements and deliverables.
- Step 3: The lecturer meets with the class and presents an overview of the module learning outcomes, the assessment criteria and the expected project structure. The clients make a brief presentation to the class. Then the class is divided into project teams. The teams are randomly assigned to a client company and they prepare for a meeting with their client the following week.
- Step 4: The class project teams meet their clients face-to-face. The client presents their problem to their student group in more detail than in the original brief. At this stage a date is set on which each project team will present their marketing plans to the clients at the end of the semester (Week 12).
- Step 5: Each week the project teams provide progress updates to the lecturer in class and identify any issues they are having with the process.
- Step 6: The class project teams present their marketing plans to their clients through oral presentations and a written project report.
- Step 7: Reflection and feedback from the class is built into the module review process. In week 12 of the module, each student is required to reflect on their views of the research process and the role they played in their group. Students are then asked to give feedback to the lecturer.

4. Methodology

These particular non-business students are very practical in their perspectives. Collaborating with actual companies which were based on campus and therefore easily accessible to students provided the best opportunity for them to learn in a very practical manner while achieving the learning outcomes of the module.

Based on considerations of various types of research, the type of research most suitable to this purpose was deemed to be Action Research. Kurt Lewin, first coined the term "Action Research" in 1944. In his 1946 paper "Action Research and Minority Problems" cited in Burns [9], he described Action Research as "a comparative research on the conditions and effects of various forms of social action and research leading to social action" that uses "a spiral of steps, each of which is composed of a circle of planning, action and fact-finding about the result of the action" (p.312). Lewin's [9] description of Action Research (AR), which entails a process of change incorporates three steps, as summarised in Figure 2 below.

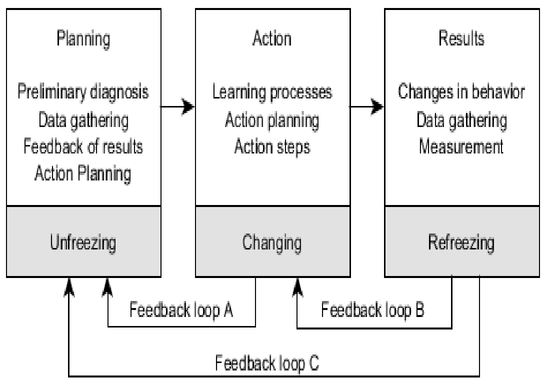

Figure 2. Systems model of action research process [9]

In this model, Action Research is depicted as a cyclical process of change, beginning with a series of planning actions initiated by the client (the incubation centre-based company) and the change agent (the student) working together. The principal elements of this stage include a preliminary diagnosis, data gathering, feedback of results, and joint action planning. The second stage of Action Research is the action, or transformation phase. This stage includes actions relating to learning processes. As shown in Figure 2, feedback at this stage would move via Feedback Loop A and would have the effect of altering previous planning to bring the learning activities of the client into better alignment with new objectives. The third stage of Action Research is the output or results phase. This stage includes actual changes in behaviour resulting from steps taken following the second stage. Data are again gathered from the client so that progress can be determined and necessary adjustments in learning activities can be made. Minor adjustments of this nature can be made in learning activities via Feedback Loop B.

Avison et al., [10] describe Action Research as an approach that combines theory and practice (and researchers and practitioners) through change and reflection in an immediate problematic situation within a mutually acceptable ethical framework.

This is led by individuals working with others in teams or as part of a community of practice, to improve the way they address issues and solve problems. [11]

Susman and Evered [12] described AR as comprising of five stages: diagnosing, activity arranging, move making, assessing, and indicating learning. The aim of AR is to address genuine issues through mediation while making a commitment to learning [13] Coghlan and Brannick [14] highlight the importance of the environmental and academic connections to the process. This is echoed in the work of Dick [15] who describes Action Research as:

- Action designed to bring about change in some community, organisation or programme.
- Research to increase understanding on the part of the researcher or the client, or both – and in many cases some wider community.

Reason and Bradbury's [11] statement that "Action Research is about working towards practical outcomes, and also about creating new forms of understanding, since action without reflection and understanding is blind, just as theory without action is meaningless" (p.2), is particularly apt in the context of this research paper.

The process of reflection is integral to AR and is emphasised in the literature [10], [14], [16]. Braa and Vidgen [17] make the important point that in the course of research, in addition to learning from the research content, there should also be learning about the process of inquiry. Coghlan and Brannick [14], propose that this "reflection on reflection" results in "learning about learning". They call this process meta-learning, which consists of three types of critical reflection:

- Content reflection: this is where one thinks about the issues and what is happening.
- Process reflection: this is where one thinks about strategies, procedures and how things are being done.
- Premise reflection: this is where one critiques underlying assumptions and perspectives.

Coughlan and Brannick [14] then super-impose these three constructs on their version of the Action Research cycle to develop a Meta cycle of inquiry which is shown in Figure 3.

In their conceptualisation:

- The Content of what is diagnosed, planned, acted-on and evaluated is studied.
- The Process of how diagnosis is undertaken, how action planning flows from that diagnosis and is conducted, how closely the implemented actions follow the stated plans and how evaluation is conducted are critical foci for inquiry.
- The Premise reflection consists of an inquiry into the unstated, and often non-conscious, underlying assumptions which govern attitudes and behaviour.

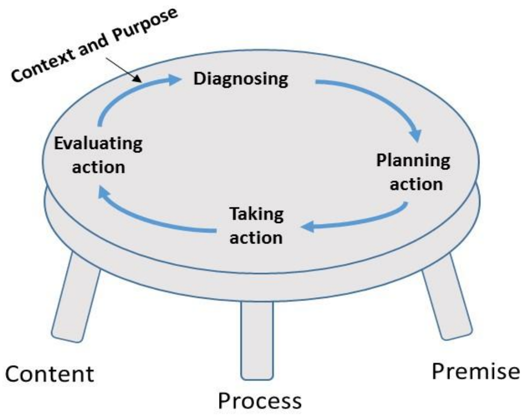

Figure 3. Meta cycle of inquiry [14]

In the next sections we will proceed to the main findings, and contributions of this paper.

5. Findings

In presenting an analysis of stakeholder engagement and reflection, we will first explore the reflections of the lecturer. Next feedback from the students who took part in the marketing communications module, which was gleaned from them in personal interviews with them, will be examined. Finally, feedback from the client company representatives and the innovation centre manager is detailed, with direct quotes italicised. We sought and received ethical clearance in writing to use our findings from the research from the innovation centre manager, client companies, academic managers while verbal ethical clearance was received from students.

5.1. Lecturer's Reflections

Each week the project teams presented a status update report of their work to the lecturer who acted as a facilitator and advisor rather than as a conventional lecturer. The project teams worked on the marketing plan during the semester using a standard template provided by the lecturer. The class project teams presented their marketing plans to the entrepreneurs and lecturer through an oral presentation and a project report. Distribution of marks was the responsibility of the lecturer and each group member signed-off on the section he or she had completed in the table of contents of the marketing plan and each was marked individually for their own work.

The next section presents students' reflections of the process.

5.2. Students' Reflections

Students were informed that they were required to do a project for their Marketing Communications module. The output from the project was to be a marketing plan for a company. The students were provided with an outline of the structure of a marketing plan and it was the students' responsibility to assess how each of the elements of that structure related to their client company.

As described by one student "This project was different from anything we had done before, and so we had to become familiar with a lot of theory before starting it so that we knew what to look out for in the company." Some students initially found it difficult to relate to the client companies and then to apply the theory to practice in that company.

Another student explained how: "once we had identified and allocated the various tasks to each group member, the project overall became much more manageable, because you only had primary responsibility for your own section of it."

One problem encountered by a small number of students was that important information was not forthcoming from their client company. As stated by one student: "we asked them to send us on information about a specific issue, but heard nothing back from them." This highlights the importance of more clearly identifying the obligations of all parties prior to commencement of the project.

A final issue experienced by a small number of students was the apparent expectation of the client company that the students would go beyond the agreed project remit. "They didn't seem to understand that what we had to do was based on a course outline and that we could not go beyond that, even if we had had time to do it." The solution to this issue, again, lies in a clearer explanation being provided, in writing, by the lecturer, to the clients, students and innovation centre managers as to their expectations of the students and the limitations that, of necessity, are placed on them based on time constraints and module learning objectives.

In the following section, the client companies present their reflections.

5.3. Client Companies' Reflections

As explained by one client representative: "I knew nothing about this particular course and group of students or this module before it started. The module lecturer had given a module outline and then went through the requirements of the project, from the students' perspectives at our initial meeting with the students."

A number of the clients voiced concern that the module's limitations resulted in a reduction in the level of interaction with, and therefore benefit that they could gain from, the students. One client representative stated that: “Some of the students seemed to struggle with some of the ideas we discussed with them."

Another client expressed the view that: "The module could be improved by broadening the scope of the marketing plan. This would allow the students to gain a better understanding of the workings of the company and its requirements from a marketing perspective."

5.4. Innovation Centre Manager's Reflections

The innovation centre manager viewed the collaborations between the non-business students and the client companies as broadly positive and beneficial, stating that "I could see how students would benefit from working with real companies, rather than just learning theory in a classroom and then trying to apply it when they finished college."

The innovation centre manager also stated that: "the biggest issue appeared to be finding a balance between what the clients expected the students to be able to do and what the course outcomes required of the students."

In making suggestions for future improvements to the course, the innovation centre manager stated that every effort should be made to "ensure a better match between the client companies and the students, so that the latter could better relate to the product or service for which they were creating a marketing plan."

Now the contributions to research and conclusions of this paper will be presented.

6. Contributions of Research and Conclusions

Despite the apparent benefits to be gained by all parties in facilitating students working with business owners, [18] there is little evidence of large-scale interactions such as these in the literature. Mason and Arshed [19] argue that there is both little examination in the literature on what structure experiential learning ought to take and a scarcity of cases of experiential ways to deal with learning.

Building on previous work, this research makes a contribution by developing a structure for co-operation between students and new business developers in a manner that can be replicated in other pedagogical contexts. In addition, this research reinforces previous research conclusions that the most powerful advantage of such projects is that they provide encouragement to students to investigate entrepreneurial opportunities [20].

In presenting the conclusions of this research, we are cognisant of a number of issues. Firstly, the scope of this research is limited to one particular student cohort in the college where the research took place. Therefore, its conclusions are being limited to that context. In addition, there was a short time-frame within which students were required to develop marketing plans for their client companies.

Taking account of these issues, the primary function of this paper is to evaluate interactions between students and entrepreneurs based in a specific innovation centre to show how the gap between theory and practice might be bridged by direct engagement between the parties. Giving students the opportunity to work directly with the client company is a novel pedagogical methodology that has the potential to cultivate entrepreneurial thinking and conduct among the students, along with giving them a better appreciation for the demands of developing and running a business.

An important conclusion from this research is that there was found to be a significant level of commonality between the requirements of all parties, for a very clear explanation of the module specifications and learning outcomes prior to commencement of the project. With this in mind, any future client participants will be asked to prepare a market research brief, outlining from their perspective, what they believe to be the main problems facing the company. This would allow the students to prepare a market research proposal, in response to the brief, which would outline the students' perspective and also explain their plan of action. The brief would then form an agreement between the clients and the students and provide a clear path for all parties to achieve a satisfactory outcome from the research.

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