Knowledge Acquisition and Client Organisations: Case Study of a Student as Producer

Barry Ardley, Abi Hunt, Nick Taylor

Abstract—As a theoretical and practical framework this study uses the student as producer approach to learning in higher education, as adopted by the Lincoln International Business School, University of Lincoln, UK. Student as producer positions learners as skilled and capable agents, able to participate as partners with tutors in live research projects. To illuminate the nature of this approach to learning and to highlight its critical issues, the authors report on two guided student consultancy projects. These were set up with the assistance of two local organisations in the city of Lincoln UK. Using the student as producer model to deliver the projects enabled learners to acquire and develop a range of key skills and knowledge, not easily accessible in more traditional educational settings. This paper presents a systematic case study analysis of the eight organising principles of the student as producer model, as adopted by university tutors. The experience of tutors implementing student as producer suggests that the model can be widely applied to benefit not only the learning and teaching experiences of higher education students, and staff, but additionally, a university's research programme and its community partners.

Keywords—Experiential learning, consultancy clients, student as producer.

I. INTRODUCTION: OUTLINING THE STUDENTS AS PRODUCER APPROACH

THIS paper examines the student as producer (SaP) framework and its application in one higher education setting, the University of Lincoln, UK (UOL). SaP is an approach to curriculum design where the student is viewed as an active contributor and collaborator in the knowledge creation process [1]. In support of this, SaP poses the argument that too much attention is focused on the instructional paradigm of learning in higher education, where the student is viewed as a passive consumer of knowledge [2]. From a SaP perspective, a resolution to this issue resides in implementing a learning style based on research-engaged teaching. Employing this, means that students learn principally through involvement in explorative projects, underpinned by a set of integrated and mutually supportive organising principles [3]. This paper demonstrates how these organising principles were deployed to enrich the learning experience of students and to enhance research in the UOL's International Business School (LIBS).

A SaP approach was facilitated by way of a student consultancy module, where the intention here is not to review project findings or recommendations made to clients, but to examine the learning processes involved. The objective is to analyse how the SaP model operates through its organising principles, and to outline the ramifications of its use in higher education. In terms of the methodology, reflections on teaching experience were collected from staff based on course outputs, written staff notes, and verbal recollections. We firstly identify the basis of the SaP approach, to include an outline of its intellectual basis and the organising principles involved. After this, we briefly review arguments about experience-based learning and then outline our student as consultant context. Subsequently, we then examine and analyse each of the SaP organising principles, as applied to the consultancy projects. A concluding commentary offers a reflection on the benefits attached to implementing the SaP model in higher education.

II. SaP: THE INTELLECTUAL ORIGINS

SaP is underpinned by an intellectual argument positing that the linking of research and teaching is the key principle for a progressive pedagogy [4]. In this context, the historical detachment between research and teaching in knowledge intensive universities in parts of the world, has resulted in some observers pointing out that this situation has led to the development of student disengagement. Recognition of this problem assisted in motivating the SaP impetus [5]. Inspiration for SaP also draws on the work of the Boyer Commission in the USA [6]. In this report, the contention was made that a reconfiguration of learning and research occur, in order to enable staff and students to work collaboratively. Whilst it has been pointed out [7] that there is nothing unique about higher education learners doing research in partnership with peers and staff, the features inherent in SaP provide the potential to alter the traditional role adopted by students and in the process, enhance their skill set. Essentially, SaP seeks to intercede in the living context of social relations, where teachers organise circumstances to enable students to learn for themselves [8].

The Organising Principles of SaP

Translated into practice, SaP is activated through eight interrelated principles [9]. The key principle is that of student-based discovery, where learning is based in student research, with tutors as advisers. Principle two is about the application of technology in teaching, where the former acts as an enabler of student development. Principle three involves the creative use of space in an imaginative learner centred way. Principal four means basing all SaP assessment design on active, knowledge seeking learning. Principal five represents the evaluation of the teaching and research process undertaken, and principal six is the presence of the student voice in the learning process. Principal seven is about providing adequate support for

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research-based teaching using information resources and finally, principal eight, is about creating the future through employability, further study and enterprise. Implementing these principles means that the process of learning is given greater significance than the products of learning and through active engagement, students contribute to their own growth [10].

SaP and Experience-Based Learning

A SaP perspective is congruent with pragmatic learning, where knowledge is created through undergoing exploratory experiences. This student-centred practice is based on constructivist theory, one that emphasises the learner's role in constructing their own meaning through self-directed inquiry [11]. Evidence was examined for this experience-based discovery process in learning, the conclusion being that unguided discovery is the least effective learning approach, while directed discovery is more successful [12]. Consequently, if a self-directed learning approach is properly implemented, results should be favourable to learners [13]. The issue is one of balance, where coupled with short but purposeful direction for the learner, as supplied in our case example here, experience helps to develop knowledge that explicit instruction cannot deliver alone. Part of this knowledge is also inevitably, deeply personal. Students, like anyone undergoing varied experiences, will learn more about themselves, supporting the point that individuals contribute to the construction of their own reality [14].

The LIBS Consultancy Projects

In terms of delivering SaP, the LIBS consultancy project is an ideal vehicle, one that builds on earlier studies. It is both an advanced undergraduate and post graduate degree module in LIBS. In our context, consultancy involves the analysis of a subject by an external advisor, (students) followed by the reporting of findings and the making of recommendations for the client (a local organisation) to improve [15]. One consultancy project involved Lincoln City Football Club - LCFC - where the task was to examine the current and potential contribution of the club to the local economy, an issue of considerable importance in terms of revenue generation [16]. This work was undertaken by a group of international MBA students. The other project is based on the Lincoln Magna Carta document - MCD - as conducted by one final year undergraduate student. The parchment is a very significant historical tourist attraction, exhibited in Lincoln Castle [17]. The Castle learning team invited the student to determine visitor perceptions of a new exhibition centre, and to consider any potential improvements. Both consultancy cases provide good examples here of what have been stated as the key tenet of SaP. This is where a learning approach must be about the study of real and complex research issues by students, acting as producers of knowledge, rather than as knowledge consumers [18]. This SaP perspective is part of the wider structures of UOL [19]. Concomitantly, it is also a priority embedded in the LIBS teaching and learning processes, where previous student and staff collaborative research has resulted in published outputs [20].

III. SaP: Application of the Organising Principles to the Projects

The first organising principle of *student-based discovery* involves three learning components. These are about the enquiry, the problem, and the research [3]. The process is firstly driven by an enquiry-based scenario, accompanied by one or more open-ended problems. With tutors as supportive advisers, students were expected to identify their own issues to examine in conjunction with the client organisations. For the MCD scenario, the student had to resolve the problem of deciding what to research in terms of visitor perceptions of the exhibition. The types of questions finally devised included ones relating to visitors' relationship with the MCD, the type of ambience generated by the exhibition, the role of guides and the appeal of castle signage. Enquiry based learning also involves students in having to examine the resources they need, and for both projects, learners had to for example, itemise and obtain printing materials, access computers and related software, organise their time and ensure that physical spaces were available for primary research. Using problem-based learning also meant the MCD student had to decide on a specific primary research method and sampling process to adopt, to include how where, and when to administer this to castle visitors. This involved setting up qualitative and quantitative questions supported by secondary data on aspects of heritage marketing, service theory, the MCD itself, and consumer behaviour.

For the LCFC project, comprising a team of twenty learners, students organised themselves into smaller groups to undertake specific areas of investigation, which also involved devising research questions, alongside the relevant research administration tasks. Five small groups were set up, each with four members. These groups had assorted roles. One group collected and examined home game visitor data relating to food outlets. The other groups had topic data to research relating to areas such as retail facilities, hotel accommodation, transportation, sports marketing, and branding of the city. One group spent time in the match day fan areas, gathering responses to a survey. This group also had to decide the questions to ask. Like the MCD project, students learnt to resolve some wide-ranging research problems, linked to issues of organisation and project management. In both projects tutors were available to help with, for example, the provision of advice on the structure of research instruments, along with feedback on pilot studies.

The second organising principle of SaP is the *application of technology to learning* [3]. In the MCD project, as well as using internet communications to connect with tutors and Lincoln castle representatives, the student accessed and analysed a range of websites, to include the module Blackboard site, and other online locations connected to the MCD and heritage marketing. Additionally used were software packages that assisted data analysis of research results. A final report with recommendations was presented in an MS Word document to the Castle learning team, alongside an oral account involving a PowerPoint presentation containing advanced features, like animation and sound. For the LCFC project, similar digital technology was also in use, with exchanges taking place

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between university staff, students and LCFC. The Blackboard learning environment was used to provide information and electronic links were established for students to access outside resources relating to the local economy. The final report provided for LCFC was also produced using appropriate analytics software and word processing packages. In consequence, this SaP principle, involving the selective use of technology, can be seen to enhance the relationship between students and tutors and to contribute meaningfully to learning and development.

Thirdly in SaP, there is the *space and spatiality* organising principle [21]. In both projects, students engaged with two of space and spatiality's key criteria, being engagement with the community outside of the campus and making use of both formal and informal places in imaginative ways. The LCFC student groups initially took part in visits to the football ground, to familiarise themselves with the nature of the club and to meet staff to obtain insights into the project brief. Additionally, visits to local transport, hospitality and food venues occurred, to gather primary data. Consequently, a varied number of different learning spaces were used. For the MCD project, the student used novel learning spaces, including the castle grounds for the visitor research and for meetings with the castle learning team. The MCD project involved using other spatial properties, to include the area where the document is exhibited and the wider geographic space of the castle like the wall walks, as used by visitors. Next, principle four is *assessment through active learning* [9]. Assessment for both projects was set in the form of an investigative assignment - not a knowledge testing exam – reflecting the experience-based discovery mode of learning, one that is continually active and engaging of students.

The fifth organising component of SaP is the *evaluation of teaching and learning* in terms of project and the output [10]. Firstly, in completing the necessary university ethics forms before the start of the research, all students in both projects had to set out and evaluate with tutors, exactly what they hoped to accomplish in terms of the research methodologies adopted and the types of recommendation expected. Consequent to this, the university's ethics committee then evaluated both projects in terms of principled appropriateness and feasibility. The ethics approval process also meant that the agreement of client organisations for the research to take place had also occurred. For both the LCFC and MCD projects, evaluation of the student work also occurred at regular intervals - whilst the projects were underway - with tutors and client representatives, to ensure adequate progress was being made. On completion, both consultancy cases with findings and recommendations were then evaluated by client organisations, who were very positive about the work submitted. Finally, grades were then arrived at by tutors for the module. Both the LCFC [22] and the MCD [23] projects, inclusive of consultancy findings and recommendations, were published representing another way to evaluate SaP. This demonstrates how this learning mechanism can contribute to not only student understanding, but also to the research of the university, as a result of its approach to knowledge generation.

The sixth organising principle, that of *student voice* reflects the ways in which SaP tries to ensure teachers are dutiful towards ensuring that students are actively heard in the learning process [3]. For both consultancy projects, equality in working was evident, where tutors enabled students to raise issues about their study. This included factors where students expressed concerns about working to timescales, gathering the correct information, organising resources, operating in teams, and dealing with outside external stakeholders. Tutors, castle and LCFC staff, all worked to make certain that any problems were highlighted and dealt with empathetically. In the LCFC consultancy, with many learner consultants, the presence of the student voice meant that all aspects of the project were executed through intense partnership working. With students coming from diverse country backgrounds, it was necessary for them to use their voices to translate ideas into practice in a collaborative and clearly communicated fashion, using the cultural and network frameworks available. In a global working environment, cultural awareness, and the ability to work with diversity, is a key asset to possess [24]. The seventh organising principle is about ensuring that adequate support *exists for research-based teaching and learning through engagement with information resources* [7]. Tutors made sure that the relevant library staff were aware of the nature of both projects, where expert support was provided through academic subject librarians. The latter regularly organised meetings with students, and dealt with other communication channels as well, where they responded to a variety of information-based concerns. Here, the consultancy tutors provided additional support about specialist texts and research material, when appropriate.

The eighth and final principle of SaP is about *creating the future*. Our case demonstrates that SaP can provide the essential skills and qualities that will be useful to students in terms of their impending employability opportunities. This addresses the problem identified in some previous research work on graduate employability. It was highlighted that a very pressing concern of students was the need to have a stronger focus present on obtaining practical experience in their higher education courses [25].

In both our consultancy cases, work-based skill development is very evident. Both projects were effectively project managed from start to finish, by students. This included authoring a research proposal that was submitted to the client through to completing a final report. Execution of the work involved the key employability skill of networking, with a range of stakeholders. Networking meant working with city visitors, tutors, local businesses, the client firms, and university library staff. Few work roles do not require this type of skill. Additionally, in arriving at a situation where the students could make a series of recommendations to the client organisations, persuasive arguments had to be presented in oral and written form. This involved the ability to make judgements that offered solutions to problems, where the skill to understand and analyse secondary and primary data was also needed. These are all very visible work-based abilities, ones that provide an excellent basis for the development of the self-directed employee as needed by organisational workplaces and in future learner studies [26].

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IV. Concluding Comments: The Value of the SaP Model

The objective of this paper was to examine the SaP model's eight organising principles, in order to provide an analytic example of its practical usefulness for higher education. Here we offer some short reflections on the value of the model, looking at the principles holistically, as implemented in LIBS. Firstly, we argue that SaP transforms learners into makers, not takers, of knowledge. A relevant metaphor to employ here is one where the student is seen as producing outputs for their own branded factory, or their branded service product. In this sense, students are not just passive recipient customers, but active investors in themselves, building and developing expertise and a range of skills along the way. Applying the SaP experience-based model of discovery learning enables students to become more capable of making real choices, in a truly agentic fashion, where the individual takes responsibility and the initiative for their own learning. As examples of this agency, students had to think about their research goals and seek out the relevant skills to use and the necessary knowledge. The latter came from a wide variety of sources, enabling learners to present solutions to contextualised problems. In both consultancy cases the knowledge to solve the research issues related to a host of areas, including the economy, management, visitor behaviour, marketing, research methods, and the consultancy client organisations themselves.

Secondly, SaP sees a changed role for the tutor which has a bearing on both education and the workplace. As part of a development process, students in the projects here created with tutors, a continuous and inquiring dialogue, one relating to their understanding and experience of learning. SaP shows that the role of the educator can be re-framed, to function as a facilitator of experience-based learning, rather than as just a knowledge-transmitter. This is much like the way a progressive manager might operate in the workplace, in a collaborative and supportive fashion. This factor of partnership, involving altruistic local organisations as well, was a critical and central feature of the success of both cases. Particularly important was that the SaP consultancy cases were instrumental in positioning learners as cooperative and assured social agents. The result was a gain in personal levels of confidence, further enhanced by the associated publication outputs.

Thirdly and finally, in moving forward, we posit that the SaP model can provide a sound framework for further fruitful collaborations between employers, students, and higher education settings, as illustrated here. This need not always takes the form of consultancy projects, as internships, or college only courses, could be imaginatively used as well. Additionally, it is worth noting that more published research based on SaP would be especially useful. As an example, research could investigate how SaP operates in diverse types of practical learning contexts, thus helping to reveal the flexible nature of its organising principles. There are diverse questions facing students and tutors around the globe, and the authors here argue that the SaP model has an enormous utility for higher education. In conclusion, we argue that SaP can be applied in all manner of differentiated learning contexts in order to help meet the many emerging challenges that face educators and employers.

It is not the only way to learn, but we argue its value is unmistakeable and worthy of consideration by all higher education managers and tutors, when contemplating curriculum development processes.

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