

An analysis of the implementation and continuity of WBL delivery evident in Capstone Projects in a private business college in the UK

WBL delivery

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Abstract

Purpose – An analysis is conducted on the implementation of Capstone Projects (CAPP) at a private business college in the UK as part of their work-based learning (WBL) strategy. CAPP are introduced for the first time in this college in the Autumn semester of 2017. The purpose of this paper is to study the continuity and impact of WBL through the CAPP.

Design/methodology/approach – Comparative data of student experience were collected and analysed from online polls throughout the Autumn and following Summer semester webinar lectures and a content analysis of formative assessment work included in the final submissions.

Findings – Data indicated that recommended changes after the Autumn semester were only partially successful by the Summer semester and that the continuity of the key pedagogical strategies identified in the Autumn semester were still noticed and mentioned (implicitly and explicitly) in the following Summer semester. Data indicated that the CAPP was a rewarding challenge, that the process of using a webinar was an appreciated and effective process overall and that good supervision made a significant impact on the success of the process.

Research limitations/implications – The implication of the research is that it indicates student experience from the application of WBL in the CAPP process.

Practical implications – Key future recommendations addressing improvements were mainly focussed upon the programme administration.

Originality/value – The work adds to a minimal amount of research on WBL within CAPP in the UK and adds to the knowledge within the field of WBL.

Keywords Private universities, Capstone Projects, Project-based learning, Work-based learning, Work-based learning projects

Paper type Research paper

Introduction

Capstone Projects (CAPP), more common in the USA and Australia compared to the UK (Buzzetto-Moore, 2013; Cooper *et al.*, 2015). Also called a Capstone experience, culminating project or senior exhibition, among many other terms, it is a multifaceted assignment that serves as a culminating academic and intellectual experience for students, typically at the end of an academic programme or learning-pathway experience (Cooper *et al.*, 2015; Jiji *et al.*, 2015). CAPP, while they vary from university to university, are usually more “experiential” projects where students take what they’ve learned throughout the course of their graduate programme and apply it to examine a specific idea, integrating prior knowledge and learning with future employability (Lang and McNaught, 2013; Shin *et al.*, 2012). CAPP therefore are about the culmination of learning across a course (the synthesis, integration and application of acquired knowledge) rather than the acquisition of still further new knowledge. “Capstone Projects should be challenging” (Jiji *et al.*, 2015, p. 190).

Defining the terminology

The aim of a CAPP is to integrate and consolidate acquired concepts and skills through the use of project work (Vanhanen *et al.*, 2018). Considering the growth of integrated degrees in



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Higher Education (HE) (Boud *et al.*, 2001; McRae *et al.*, 2019), it is important to define the various work-integrated learning (WIL) approaches found within CAPP and critically understand the choice of delivery and assessment related to these. The focus of this paper is on work-based learning (WBL) defined as “the term used to describe a class of university programmes that bring together universities and work organisations to create new learning opportunities in workplaces” (Boud *et al.*, 2001, p. 3). According to Boud *et al.* (2001), WBL shares six characteristics, namely, “a partnership between an external organisation and an educational institution” (p. 4), “learners involved are employees” (p. 5), the programme derives from the needs of the workplace and the learner (p. 5), includes the recognition of prior learning (p. 6), involves projects undertaken in the workplace (p. 6) which are often problem-based to help integrate technical knowledge and practical experience (Boud, 2001) and is validated by the Higher Educational Institution (HEI) often in a transdisciplinary context (Boud *et al.*, 2001, p. 6). McRae *et al.* (2019, p. 4), citing the definition agreed by the Co-operative Education and Work-Integrated Learning organisation in Canada, define WIL as “a model and process of curricular experiential education which formally and intentionally integrates a student’s academic studies within a workplace or practice setting”. WIL includes apprenticeships, Co-operative Education (Coop), Internships and placements, among others (Boud *et al.*, 2001; Raelin, 2010; McRae *et al.*, 2019). It is beyond the scope and focus of this paper to discuss and critique the differences between these approaches, as Boud and Solomon (2001, p. 19) “suggest that work-based learning is different enough to warrant a careful examination of its practices and what they signify”; however, within the UK, it is important to draw a distinction between WBL and higher degree apprenticeships (HDA). An “apprenticeship combines about 80 per cent at-the-workplace experience with 20 per cent technical classroom training” (McRae *et al.*, 2019). WBL does not require such a demarcation making it a more suitable correlation with CAPP. When an apprenticeship is validated with a Higher Educational degree it becomes an HDA (Minton and Lowe, 2019). Although both approaches, in terms of assessment, involve the collection of learning evidence (skills and competence), within WBL, these portfolios are driven by the student negotiating their learning outcomes (Boud and Solomon, 2001, p. 21; Helyer, 2015, pp. 239, 283), whereas, in had, they are informed by the end point assessment (EPA) (Hughes and Saieva, 2019; Schedlitzki, 2019) initiated by the Trailblazer(the workplace) (Hughes and Saieva, 2019; Minton and Lowe, 2019; McKnight *et al.*, 2019, p. 151). The extent to which there is transdisciplinary learning and the potential for professional curriculum in comparison to mastery/competency curriculum (Schedlitzki, 2019, p. 243) within the HDA is also debated from both sides of the issue (Boud, 2001, p. 46; Gerhardt, 2015; Crawford-Lee and Moorwood, 2019). HDAs also involve more administrative processes involving for example the QAA, Ofsted and HESA (Hughes and Saieva, 2019). Nonetheless, both WBL and HDA include reflection and are geared towards more adult learners and widening participation (WP) in HE (Boud *et al.*, 2001; Raelin, 2010; Schedlitzki, 2019; Crawford-Lee and Moorwood, 2019; Hughes and Saieva, 2019; Minton and Lowe, 2019; McKnight *et al.*, 2019) but this paper seeks to demonstrate the correlation between WBL and CAPP through the analysis of student experience.

The study context

The private for-profit UK Business and Law College was established almost five decades ago. It differentiates itself from other providers in HE by embracing the opportunities of diversity and inclusion. About 80 per cent of the 7000 students live within 10 miles of the campus, 90 per cent are Black, Asian and Minority Ethnic, 80 per cent are mature and 16.6 per cent are drawn from Participation Of Local Areas (POLAR) 1 and 2 postcodes (low educational achievement and aspiration); the largest percentage of any HEI in London.

As such the college identifies itself as a WP provider. WP involves recruiting and thinking about an older, part-time and work-based student (Action on Access, 2005). As already stated, it is a common feature in the UK in both HDAs and WBL.

The college runs three semesters a year, commonly referred to as Spring, Summer and Autumn semesters. Each semester is comprised of modules that add up to 60 credits in total. Each semester has ten weeks of teaching. Two semesters make up one academic level such as level 5 (60 credits \times 2 semesters = 120 credits for the level). Some students participate in three semesters a year in order to have an accelerated degree (180 credits a year \times 2 years = the 360 credits for a degree). As part of a new suite of modules, validated by a collaborative partner University, i.e. the college does not have Taught Degree Awarding Powers, the college implemented for the first time WBL focused modules at the start of the second semester at level 5 (Project/Placement, Design and Implementation (PPDI) and Evaluation and Reflection (EVRE)), and at level 6 (the final two semesters) the undergraduate research proposal modules (Research and the Professional (RPRO) and Research Methods (RMET)) in the Summer of 2017 which led to the CAPP in the Autumn semester of 2017. According to Buzzetto-Moore (2013) considering the National Survey of Student Engagement Report in 2007 in the USA, CAPP increase the overall performance of students as it is an equaliser, offering all students, from low to high achievers, the opportunity to succeed. As such, CAPP are effective with socially disadvantaged and at-risk students, i.e. POLAR postcodes 1 and 2. The college is a WP college and so it is therefore self-evident as to why they have chosen to implement CAPP as the final assessment.

These WBL modules are taught across ten different programmes in mixed cohorts (transdisciplinary) such as Oil and Gas Management, Events and Entertainment Management, Accounting and Finance, Human Resource Management and Management in Travel and Tourism. The ten programmes are taught discipline specific until they start the WBL modules in the final semester of level 5.

The author is the "Programme Leader" of the WBL modules PPDI, EVRE, research proposal modules, RPRO and RMET and the final CAPP module. From the module handbooks, PPDI aims to give the student the opportunity to apply their subject knowledge and capability gained thus far from their courses with your real-world and professional experience; the overall aim of EVRE is to enable the student to evaluate the significance of their learning derived from PPDI; RPRO introduces the complexity involved in conducting research within organisations, including the potential ethical aspects encountered in a professional context (an "embedded" researcher as described by Walsh, 2010); RMET aims to develop students' understanding of research methodologies and techniques relevant to their chosen field; and CAPP is about the culmination of learning thus far (the synthesis, integration and application of acquired knowledge) rather than the acquisition of still further new knowledge. The importance and continuity of these modules in the CAPP will be discussed later.

Students choose which elective research proposal module (the distinct RPRO or RMET module) they wish to complete in order to produce a research proposal for the synoptic CAPP. The aim of a CAPP is to integrate and consolidate acquired concepts and skills through the use of project work (Vanhanen *et al.*, 2018), and, as such, is an appropriate form of assessment for the WBL emphasis introduced through PPDI and EVRE modules previously. Supervisors are allocated by the department Hhads. The author trains and facilitates these allocated supervisors regarding the CAPP process and their supervision skills. During the CAPP, students are allocated in groups of four with a subject specific supervisor. Every week, students attend a live recorded webinar lecture and subsequently apply the learning in their group supervision. The webinar lecture includes polls measuring student progress and opinions across different subjects. Each week logically builds upon the development of the CAPP. Supervision groups are action learning sets, where the real

learning and application of learning takes place facilitated by the supervisor. Action learning is an explicit teaching and learning strategy in the college and is popular within WBL approaches (Keithley and Redman, 1997). Each week, the weekly recorded webinar lectures are placed on the VLE supported by further themed resources. The CAPP submission is the equivalent of 8,000 words (excluding the list of references and appendices, if applicable). In the appendixes, as part of formative assessment, the CAPP submission also includes:

- a reflection (the student's reflection in writing on their experience across their degree); and
- and a personal professional statement.

At the end of the module students will be expected to be able to:

- demonstrate a detailed knowledge of the major discipline with areas of specialisation (specific learning outcomes to be set by student and supervisor);
- undertake critical analysis using an appropriate range of techniques – evaluate evidence to support conclusions – application to complex situations;
- engage in self-assessment, reflection and analysis;
- use creative and critical thinking skills to solve problems;
- work and learn both independently and collaboratively; and
- communicate ideas and the results of their work with clarity and concision as appropriate to the identified audience.

This paper, evaluating the continuity of WBL in the final CAPP, analysed the webinar polls and the formative assessment submissions after the Autumn semester in 2017 and the Summer semester in 2018.

Literature review

Capstone Projects

There are a variety of CAPP. Some include case studies, programme evaluations, outcomes-based evaluations, surveys, focus groups, etc. For example, see www.gradschoolhub.com/faqs/what-is-a-capstone-project-in-graduate-school/. Costley *et al.* (2010, pp. 175-176) provide some WBL projects as outcomes such as reports, training courses, works of arts, new policies and website construction.

The CAPP is student-centred as it offers the intellectual space, resources and mandate to strike out in a new and innovative direction: the opportunity to take a vision, expertise and experience, and make something new, by identifying a niche and perhaps creating a business to fill it (Buzzetto-Moore, 2013). And, whether the interest is to further the student's career in a major corporation or give them the confidence to set out on their own, thus through their participation in the project, it will enable them to do so in ways they may never have considered before. It is an opportunity to apply their programme learning to their current business environment, a start-up or a social cause, for example. CAPP allow the student to synthesise learning in a single project that demonstrates the fulfilment of the programme's learning outcomes, "a crowning experience at the end of a sequence of courses" (Alstete and Beutell, 2016, p. 175). It allows them to showcase what they have learnt at the end of their degree. It integrates academic knowledge with experiences beyond the classroom and combines developing knowledge, skills and personal interests. The project will be conceived, designed, and carried out independently, with support and supervision. It aims to enable a demonstration of business research with a potential real-world outcome.

CAPP may take a wide variety of forms, but most are long-term investigative projects that culminate in a final product, presentation or performance. For example, students may be asked to select a topic, profession or social problem that interests them, conduct research on the subject, maintain a portfolio of findings or results, create a final product demonstrating their learning acquisition or conclusions (e.g. a paper, short film, or multimedia presentation) and give an oral presentation on the project to a panel of teachers, experts and community members who collectively evaluate its quality (Cooper *et al.*, 2015). CAPP are generally designed to encourage students to think critically, solve challenging problems and develop skills such as oral communication, public speaking, research skills, media literacy, teamwork, planning, self-sufficiency or goal setting – i.e. skills that will help prepare them for modern careers, and adult life (Shin *et al.*, 2012). In most cases, the projects are also interdisciplinary, in the sense that they require students to apply skills or investigate issues across many different subject areas or domains of knowledge. CAPP also tend to encourage students to connect their projects to community issues or problems, and to integrate outside-of-school learning experiences, including activities such as interviews, scientific observations or internships. At the college, the CAPP therefore is a logical continuity from the PPDI project module taken in the last semester of level 5.

While CAPP can take a wide variety of forms, a few examples will help to illustrate both the concept and the general educational intentions:

- writing, directing, and filming a public-service announcement that will be aired on public-access television;
- designing and building a product, computer programme, app, or robot to address a specific need, such as assisting the disabled;
- interning at a non-profit organisation or a legislator’s office to learn more about strategies and policies intended to address social problems, such as poverty, hunger or homelessness;
- conducting a scientific study to determine the ecological or environmental impact of changes to a local habitat; and
- researching an industry or market, and creating a viable business plan for a proposed company that is then “pitched” to a panel of local business leaders.

See <http://edglossary.org/capstone-project/> as an example.

CAPP are intended to be intensive, active learning projects, requiring significant effort in the planning and implementation by the student, as well as preparation of a substantial final submission. Whilst the subject is likely to be driven by the programme aims, there is a wide scope of opportunity for students to develop a project or dissertation in a subject area of their choice.

CAPP at the college

Students at the college only share a common journey (interdisciplinary) on their individual courses when they do the PPDI and EVRE modules (WBL) at level 5, and the RPRO, RMET and CAPP modules at level 6. Other commonalities they share are explicit pedagogical choices made as an institutional wide strategy which includes strength-based teaching and action learning. The college programmes are geared towards working professionals and the CAPP gives students the ability to take the knowledge and theory they have learnt across their degree and apply it in a real-world setting, i.e. WBL, although there are also similarities with EPA and HDA. The actual project may be a report or dissertation or a work-based project or a consultancy project or a hybrid thereof.

The CAPP aims to synthesise learning in a single project that demonstrates the fulfilment of the programme learning outcomes. Each project results in a final product such as a research paper, article, or documented action project, presentation of a body of visual/literary work, written project, dissertation or combination thereof (taken from the module handbook).

The module provides the student with an opportunity to demonstrate the nature of management in strategic terms, by identifying appropriate strategies for similar organisations given corporate objectives. They are shown how to demonstrate this as a logical process using a blended learning approach. Boelens *et al.* (2017) define blended learning as a deliberate blending of face-to-face and online instruction activities with the aim to simulate and support learning. The module also teaches students how to demonstrate methods of supporting arguments in texts with reference to both the views of leading authorities and a theoretical structure, with a satisfactory reference technique. The CAPP process aims to ensure continuity and cohesion with the college's vision and previous pedagogical approaches. The key aspects are:

- strength-based teaching and assessment;
- action learning; and
- WBL (which includes professional skills development and reflective practice).

Other secondary aspects taken into consideration in the design and delivery of the CAPP process at the college included:

- staff capacity and capability;
- teaching ingenuity and innovation;
- student time constraints;
- flexible but rigorous assessment; and
- autonomy and independent learning for the students.

As such four key approaches were identified, facilitated and implemented:

- (1) All students were placed in action learning sets (group supervision) which operates as a collaborative group think-tank.
- (2) Weekly live recorded lecture webinars.
- (3) Allocated supervisors who act as facilitators. The success of the process is driven by supervision, supported by a weekly webinar acting as a catalyst for discussion.
- (4) The assessment of the project which included in-text feedback by two blind double markers to ensure good, rigorous and high-quality feedback provided to the student.

As such, for the CAPP, the student carries out a substantial, personally meaningful project that demonstrates his or her learning in the field and programme and personal stance towards the project's material or practice. Examples might include a research paper and published article (traditional research), film, documented product development, change in policy, research report with recommendations or some other real-world resource. For examples of CAPP within the educational sector, see www.mnsu.edu/cetl/programs/capstone.html

Supervisors are briefed before the start of the semester and a supervision handbook to explain the pedagogical aim and process of the CAPP is available on the VLE as well as a video to explain the assessment process. Included with the supervision handbook are two journal articles. One explains the concept of threshold concepts and emphasises the importance of the literature review (see Sarah *et al.*, 2016). The other article explains action learning sets emphasising the goal of creating a "think-tank" to explore real-world problems, implement solutions, and as such take individual responsibility for their projects (Bourner and Simpson, 2014).

Key pedagogical elements used for a content analysis of student experience:

- (1) WBL is learning by working, by the actual undertaking of work activities (Helyer, 2015). WBL enables accelerated access through transferable skills, initial professional preparation for the “real-world”, explicit contextual professional development and the use of problem-based learning (Allan, 2015). At level 5, students across nine programmes are introduced to WBL. WBL questions the more traditional notion that knowledge is held and transferred by the privileged few through formal situations in pre-determined ways (Helyer, 2016). WBL projects and reflective practice is the best method to learn how to work with this ill-material, to change and adapt (Gerhardt, 2013). This produces Mode 2 knowledge which is highly contextual, practically focused and often unsystematic in contrast to Mode 1 knowledge categorised in subject disciplines which is linear, formal, cumulative and generalisable (Garnett, 2016). WBL, as a form of Mode 2 knowledge, allows students to apply theory in practice and learn and develop new professional skills as a result. This emphasis should continue into level 6 and the completed CAPP.
- (2) To meet the educational needs of this unusual, dynamic and entrepreneurial student base, the college pioneers’ strengths-based learning and teaching in the UK, building on the life and work experiences of students. Strength-based education originated from the research of Lopez, the architect of the Gallup Student Poll (Lopez and Louis, 2009). It involves assessing, teaching and designing experiential learning activities (Anderson, 2004; Shin *et al.*, 2012) such as what is done in the level 5 PPDI module. The educational approach is built on five educational principles, namely, the measurement of the student’s strengths to achieve outcomes, individualisation of teaching to these strengths (student-focused), networking with others to affirm these strengths, the application of these strength and the intentional development of these strengths (Lopez and Louis, 2009). Students at the college during the level 5 PPDI and EVRE modules are reminded of these within these WBL-focussed modules. There is continuity between WBL and strength-based education as the latter similarly incorporates experiential learning, reflection and problem-solving. Students at the college are introduced to Gallup strengths using the Clifton Strengths Finder test so that academic teaching staff can have a strength-based pedagogical approach in their teaching and assessment supporting the students towards them achieving their outcomes through their strengths (Lopez and Louis, 2009).
- (3) Action learning, like, if not the same as active learning, is another pedagogical approach at the college, employed from the early entry levels and consistently applied throughout all levels as students’ progress. Action learning is about active learning, addressing real issues, testing possible solutions, and collaborating with others in solving problems and implementing solutions (Bourner and Simpson, 2014). Group learning is described by De Hei *et al.* (2016) as a learning process where students collaborate in small groups to contribute to a mutual goal. As such, action learning sets provide a sounding board to test ideas and provide support for challenging problems (Bourner and Simpson, 2014). CAPP utilise learning strategies such as blended learning and group learning to foster higher-order skills, shared knowledge construction, planning, reflection, time-management and increased problem-solving ability (Buetto-Moore, 2013; De Hei *et al.*, 2016). These and used as action learning have been found to be successful in the context of professional practice (Bourner and Simpson, 2014), linking again the aspects to employability and professional development.

These three pedagogical approaches were poignant in the design of the CAPP process. Attention was given to how to scaffold the learning process and ensure all components were

aligned in the design and application of the process (De Hei *et al.*, 2016). Overall the design of the process incorporated a balance between three points of a triangle, namely, student engagement, staff capability and assessment rigour.

Methodology

Students have the option to watch a live weekly recorded webinar lecture. The recording provides students the opportunity to watch the lecture as many times as they wish but also allows those who missed the live webinar, to still engage in the weekly lecture by watching the recording later when the recorded link is posted onto the VLE. Attendance during the live webinar fluctuates as students enter and leave at different times. A small percentage also share technology during the live webinar, i.e. two students may use one phone and as such one log in. Attendance statistics as a measurement of engagement were therefore captured by watching the recordings and recording the highest number of attendees for each week.

Weekly webinar polls were used to collect data about student experience from CAPP students during the Autumn semester in 2017 and during the Summer semester in 2018. Certain data in the polls were only collected once such as “where are you during the webinar” which could then be compared to the same data collected during another semester, while other data was collected at various points during the same semester to indicate progression such as students indicating what chapters of their CAPP, they have completed each week. Similarly, these data collected about progression during the semester can also be compared with the same data progression in other semesters. Bell (2005) states that polls such as these are a form of a list-survey questionnaire where respondents are asked a question and provided with a list of responses from which to choose their response. A Likert scale was also used to measure just how confident students’ felt at various points in the process and to indicate their affinity with using webinars. Polls were used to measure student experience, for example (among many more):

- Weekly confidence (various points), the progress of individual chapters (various points), whether they met with their supervisor (week 2 only) and the quality of this supervision (week 10), benefits of the use of webinar (once only), location at the time of the webinar (once) and other webinar related matters (once only).

A content analysis is a common quantitative analysis approach of what is in a document (Robson, 2011). It was therefore appropriate to apply a content analysis of formative work included in the final assessment for both semesters as a means to analyse the student experience during the CAPP. “The content analysis is designed to identify the number of times a property appears in a text” (Scott and Morrison, 2007, p. 37). Using the already mentioned student experience foci of content, process and experience, common content properties in the Autumn semester submissions were identified in the form of keywords. These common content properties were then used as a template for the analysis of the Summer semester submissions. Furthermore, any new common content properties were also identified. These were then combined to generate themes. This thematic coding analysis has then been used to examine the ways in which events, realities, meanings and experiences at the college and during the CAPP have been affected by the range of educational discourses discussed (Robson, 2011).

Action research aims to influence or change some aspect through involvement (Robson, 2011). The data collected from the polls and content analysis in the Autumn semester of 2017 enabled the author to apply recommendations for good practice to be “grafted on to an existing system” (Bell, 2005) as a form of action research. As Costley *et al.* (2010) state, in their publication about WBL projects, action research aims to make changes or improvements through a set of cycles of investigation, action and reflection. The polls and content analysis of

the subsequent Summer semester in 2018 could then measure the impact of these improvements. Action research therefore aimed to influence or change the process (Robson, 2011) considering the three key stakeholders, namely, the student (i.e. student engagement and experience), the supervisor (i.e. competency and capability) and the assessment (i.e. external examiners and QAA processes).

Weekly attendance and therefore fluctuating poll responses will be acknowledged in the findings by using the data as percentages. The content analysis was applied using three key foci namely, overall content, overall process, and overall experience to generate key themes. Recommendations from the data were then applied as action research to the process, to be analysed again in the Summer semester of 2018. The same methodological process was applied in the Summer semester in 2018 analysing webinar polls and a content analysis of formative work included in the final assessment. This provided a comparison between the two semesters as well as an action research analysis of recommendations applied after the Autumn semester of 2017. Anonymity and confidentiality is guaranteed by removing any forms of identification.

Limitations to the process included fluctuating response rates overall and a lack of completed tutorial sheets from supervisors which could have been used as another form of data to analyse and correlate with student experience. Analysing the correlation between attendance statistics and content were also beyond the scope of this paper. Respondents in the Autumn semester are very small compared to the Summer semester.

Findings

Autumn 2017

Polls. Students had the option to engage live with the weekly webinar or to watch the recordings later at a more convenient time. The process is driven by the supervision and so it is at this time that the webinar is discussed, and the supervisor can ascertain whether the student either engaged live or watched the recording. This would be evident in supervision tutorial records. Table I below indicates the weekly live attendance of the 57 registered students with week 9 indicating 0 because the webinar did not run for technical reasons.

Attendance varied between 19 and 42 per cent in the live webinar. If the process is driven by the supervision and the supervisor, it is counter-productive that in week 2, four students indicated in their poll that they still have not met with the supervisor. With only five of the 12 supervisors providing supervision tutorials, action regarding contact with students in and after week 1 was difficult to ascertain and so the analysis of supervision records were discounted.

Polls tracked the progress the students were making each week in producing written drafts of the sections of their CAPP. This enabled the tracking of the progression of tasks and therefore progress overall, as they were constantly reminded that they needed to produce drafts on a weekly basis rather than wait until the end of the process. The data were dependent on students being live on the webinar and participating on the poll. Poll data collected indicated a reasonable progression by students through their respective draft chapters and thus overall indicated a reasonable progress. The data, however, are difficult to represent due to the fluctuating number of participants each week but Table II represents in percentage the progress captured each week.

The data indicate that the respondent sample may still be leaving the work for the final weeks leaving the methodology, data collection and analysis for the latter part of the semester. Considering they have produced a proposal which already contains the

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
13	24	18	13	18	18	16	11	0	10

Table I.
“Live” attendance totals for the webinar

introduction, literature review and methodology which they now just need to build upon, progress was slow. Perhaps confidence was a factor?

In the poll, respondents were asked to self-assess their levels of confidence. Table III indicates the data collected by the number of those whom indicated confidence from the total number of respondents that week, combining scores for very confident and confident only.

This very small number of respondents indicate an increase in confidence, especially in week 10 where all participants were confident to complete their CAPP. Confidence achieved is a key theme in formative assessment and a key outcome of strength-based teaching and assessment. A lack of completed supervision tutorials does not enable data to be correlated with the same activity throughout the supervision, i.e. the supervisor requesting drafts and tracking progress.

Data collected in the polls about new knowledge gained correlated with content in the formative assessments but does not highlight any specific themes or insights although some aspects did surface in the content. Data collected in the polls about the webinar process does explicitly correlate with content in the formative assessments. The week 6 poll indicates that all 14 participating students value the flexibility that the webinar offers and the poll in week 7, as seen in Figure 1, indicated that 6 out of 11 participants took advantage of this flexibility by engaging in the webinar off campus.

One student, in their formative assessment, said, "...weekly webinars were helpful... saved a lot of time...day and time of the webinar best suited me... watching the seminar and working on the project at the same time". Another student concurred, "a webinar...save on journey time and utilise that time for research". Another student wrote: "weekly webinar... really helped to understand how to go about the dissertation". Two other students both commenting on technical difficulties, offered constructive criticism, with one suggesting the introduction to the use of webinars be done in the previous modules and the other suggesting that the webinar was an unhelpful distraction.

Table II.
Percentage progress of chapters

	Week 3 (%)	Week 4 (%)	Week 5 (%)	Week 7 (%)	Week 8 (%)	Week 10 (%)
Introduction	11	69	44	13	18	40
Literature review	28	46	50	31	36	40
Methodology	0	31	33	31	18	40
Collecting data	22	na	17	19	9	30
Analysing data	6	0	5	13	9	na
Findings	0	0	0	0	0	20

Table III.
Confidence

	Week 2	Week 8	Week 10
Confidence	1/4	6/10	6/6

Figure 1.
Poll results for webinar location



Content analysis. A content analysis of 37 of the 57 submissions (65 per cent) containing a reflection and professional statement was completed. Content analysis was applied to the formative assessment submissions to indicate key content within three key foci. Common keywords and ideas were grouped together in key themes. These words and themes represent both positive and negative ideas such as the use of the word “challenging” which has been used to indicate a worthwhile achievement as well as something too difficult.

The first foci related to module content (i.e. knowledge). Within this context the content analysis aimed to identify keywords related to teaching content across the degree, with special focus on any keywords associated with the CAPP. The term “funnel” for example, is a key term used in the CAPP webinar and words such as reflection and simulation indicate specific aspects of content within the degree experience. The content analysis data is displayed in a word-cloud in Figure 2.

The teaching of two people was specifically mentioned more than once and other key content can be seen in the word-cloud such as reflection, research and webinar. These indicate key pedagogical strategies and key components of the CAPP.

The second foci, namely process, aims to identify key pedagogical processes identified within the content of the formative assessment submissions. Specifically, the content analysis aims to identify actual terms or related terms that mention strength-based teaching and/or assessment, action learning and WBL. These can be seen in a word-cloud in Figure 3.

Any words or ideas related to any kind of skills such academic skills have been included in the “skills” theme above. Similarly, comments made regarding family, work, career aspirations or educational background have all been grouped within the theme “career”. Action learning sets, teamwork and collaboration are all captured in the label “teams”. Key processes have been identified in the degree process and specifically within the CAPP process. As such among many, the top themes identified are skills, teams, career and supervision.



Figure 2.
Content word-cloud

Figure 3.
Process word-cloud



The third foci of interest are key adjectives describing the experience of the students across their degree, including their final CAPP. These experiences drawn from the formative assessment submissions are indicated in the word-cloud in Figure 4 below.

Many of the formative entries mentioned, how challenging the CAPP was and how challenging it was to complete a degree. Most of the sentiment however acknowledged how rewarding it was to fulfil and complete such a challenge indicated by themes around “enjoyable” and a growing sense of “confidence”.

Recommendations based on this research implemented after the Autumn semester included:

- Appointing allocated supervisors prior to the start of the semester with the intent that they could informally provide feedback on research proposals and so begin to familiarise themselves with the students work as well.
- Encouraging supervisors to use recorded webinars for group supervision. Students can then watch the recording afterwards and supervisors can use the recording as a tutorial record and for peer review feedback on their supervision skills.

Figure 4.
Experience
word-cloud



- Creating a CAPP working group to allow for specialised attention to specific tasks such as IT support to staff and students.
- Introducing a more stream-lined assessment process.

Summer 2018

Polls. Students continued to have the option to engage live with the weekly webinar or to watch the recordings later at a more convenient time. The process was still driven by the supervision and so it is at this time that the webinar is discussed, and the supervisor can ascertain whether the student either engaged live or watched the recording. Table IV indicates the weekly live attendance of the 163 registered students with week 10 indicating 0 because the webinar was a drop in and so not recorded with no data available in terms of live attendance.

Attendance in the live webinar varied between 23 and 52 per cent which is an improvement compared to the previous Autumn semester of 19–42 per cent. With only 11 of 38 (29 per cent) supervisors providing tutorial records compared to 5 of 12 (42 per cent) in the previous Autumn semester, validating whether students watched the webinar recordings by analysing these in tutorial records was therefore not viable and discounted. Five students indicated in week 2 that they had not yet met with their supervisor, and 14 of 27 respondents in week 9 indicated that their supervisor does not mention the webinar lecture. The quality of supervision (capability and competency) and quality of support to the process can be improved.

Like the previous Autumn semester, polls each week measured the progress students were making in their CAPP chapters. Respondents fluctuated each week and with a new webinar tutors as part of the new project working group, some of the poll data does not match the previous data 100 per cent. In sum, 0 per cent therefore indicates a question not asked as well as a zero response. Table V below indicates by percentage the progress indicated by respondents during the Summer semester with the previous Autumn results for comparison in brackets.

The data between weeks 4–6 showed a decline in progress in comparison to weeks 3 and 7. This could be due to the fluctuation in who attended those weeks and how they responded to the polls. Like the previous Autumn poll, the Summer poll also revealed students' leaving work to the last few weeks although this poll indicated a much larger percentage of progression than the previous semester.

No specific data regarding confidence was gathered in the Summer semester polls, however, students were asked in week 8 how they were feeling, and 10 of 21 used words associated with "stress", 6 of 21 used words associated with "confidence" and 2 of 21 indicated they were "confused". The "stress" association resonates with the content analysis

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
84	70	84	78	78	62	57	49	37	0

Table IV.
"Live" attendance totals for the webinar

	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 10
Introduction	68% (0%)	17% (11%)	53% (69%)	40% (44%)	27% (0%)	83% (13%)	98% (18%)	0% (40%)
Literature review	12% (0%)	42% (28%)	26% (46%)	37% (50%)	27% (0%)	60% (31%)	89% (36%)	0% (40%)
Methodology	17% (0%)	26% (0%)	12% (31%)	18% (33%)	39% (0%)	10% (31%)	89% (18%)	0% (40%)
Collecting data	2% (0%)	14% (22%)	3% (0%)	0% (17%)	2% (0%)	36% (19%)	76% (9%)	0% (30%)
Analysing data	2% (0%)	14% (6%)	3% (0%)	0% (5%)	2% (0%)	0% (13%)	76% (9%)	0% (0%)
Findings	0% (0%)	1% (0%)	0% (0%)	0% (0%)	5% (0%)	0% (0%)	73% (0%)	0% (20%)

Table V.
Percentage progress of chapters

category of “challenge” and like the Autumn results the association of “confidence” could relate to the key foci explicit within the process.

More specific data in the polls were collected in the Summer semester in week 9 regarding the advantages of the use of webinar lectures. Significantly, 19 of 52 respondents indicated that they liked the option of access from anywhere, and 18 of 52 respondents indicated that they liked being able to watch the webinar recording, with 26 of 32 indicating they watched past semester recordings and 24 of 28 indicating they watched present webinar recordings. In sum, 16 of 37 respondents indicated that they used webinar for the first time, and 17 of 29 respondents indicated that they were off campus while participating in the webinar. Data thus far are still inconclusive as to whether the webinar lecture approach, supported and embedded by the supervisions, are providing students with the level of engagement and support required. A detailed comparative analysis between this data and supervision tutorial records and attendance statistics would provide further insight but is beyond the scope of this paper. Live attendance remains around 50 per cent and a lack of partnership between lectures and supervisions further undermines the process overall. Only two students mentioned webinars in their reflective accounts. One student wrote in their formative reflection, “I listened to the webinars sessions, attended taught classes and feedback sessions, which were all very helpful in answering any questions I had” and another student wrote: “[...] and [the] use webinar for [my] study because they are various means that have been helpful in the completion of my research”.

Content analysis. Random samples of 105 from 154 submissions were selected from the Summer semester submission for a content analysis (68 per cent). However, only 80 of these contained a reflection and professional statement, meaning a 52 per cent sample was used for the Summer semester content analysis. Using the foci identified during the Autumn semester and the themes generated from that content analysis, these keywords were applied to the content analysis of the Summer semester sample.

In terms of the foci of content, Table VI displays the findings. Words associated with the keyword and how many times these have been used within the submissions are displayed in chronological order (highest first).

Like the content word-cloud (Figure 2), Table VI also indicated the frequent use of the word “research” and “reflection” in the submissions whereas time management was a new common keyword. The WBL emphasis and focus on reflection has remained a key component of the experience for the students but the use of the word “reflection” may also be due to the nature of the task i.e. providing a reflection of their journey across their degree culminating in the CAPP. Similarly, considering the CAPP is a research project, it could also be argued that the frequency of the word “research” may be due to the fact that this is the most prominent task in their mind. Nonetheless, the overall content analysis does indicate that the contents of submissions vary

Keyword	Associated words	Quantity
Research	Study	351
Time management	Time	253
Reflect	Reflection, reflecting	62
Goals	Objectives, goal, aims	40
Models	Pestle, SWOT, Vark, Gallup, Gibbs, Kolb, Belbin, EMBOK	28
Module content	Journal, learning contract, Gantt chart, elevator pitch	22
IT	Survey monkey, Trello, Adobe Connect, Excel, Office, PowerPoint	20
Future studies	Masters, MBA, NEBOSH	13
Modules	Emerging themes, RPRO, EVRE	9
Webinar	Adobe Connect	3

Table VI.
Content

between the two semesters in relation to specific terminology such as “funnel” but does implicitly continue to indicate continuity with WBL pedagogy.

The results of the second foci of process, using the keywords that emerged in the Autumn semester initially and finding more common words are displayed in Table VII.

It is noticeable that “skill” development is mentioned frequently in both semesters as are other common keywords such as “professionalism”, “teams” and “career”. The WBL ethos and employability aim is explicit within the process. Certain terms were absent in this analysis such as WP but in both semesters the importance of staff and good supervision were frequently mentioned. Action learning and WBL were explicit in both semesters’ submissions.

The final foci of experience, applying keywords from the Autumn semester and identifying new, are displayed in Table VIII.

As should be the nature of a CAPP, students acknowledged that it was a challenge, consistent with Autumn semester results. Like Figure 4, Table VIII also manifested the frequent use of the words “enjoyable” and “confidence”, consistent with strength-based teaching pedagogy. However, new words also emerged, namely, how past “events” helped to expose the students to employment opportunities and the relevance of their degrees, and the benefits of a “diverse” student and faculty body.

Action research. The Autumn semester had a 65 per cent submission rate and from these there was a 92 per cent pass rate. In the Summer semester, this increased to a 92 per cent submission rate with an 82 per cent pass rate. Considering the action research element of this paper, the data overall demonstrate that key pedagogical strategies related to strength-based teaching and assessment, action learning and WBL methodologies are evident in the degree experience of respondents. The data also indicate that the CAPP contents and process is valued and is appropriate for the task undertaken. In addition, anecdotal evidence from External Examiners comments regarding the CAPP assessment indicate that the CAPP teaching and learning strategy of weekly webinars and action learning sets and detailed feedback are positive overall.

However, the prior allocation of supervisors before the CAPP semester proved too much an administrative complexity and so this prior allocation of supervisors was abandoned

Keyword	Associated words	Quantity
Skill	Skills, academic	313
Teams	Groups, group work, teamwork, colleagues, collaborating, action learning	146
Supervisor	Guide	121
Professional	Professionalism, profession	115
Career	Job, family, work, education	114
Staff	Tutors, lecturers, teachers, faculty, academics	97
Library		13
Named staff members		11

Table VII.
Process

Keyword	Associated words	Quantity
Challenge	Challenging, difficult, stress, stressful, hard, not easy, overwhelming	182
Events	Event	92
Enjoyable	Glad, positive, enjoy, enjoyed, satisfied, fun	85
Confidence	Confident, motivating	81
Diversity	Culture, multicultural, diverse	14
Student Union		1

Table VIII.
Experience

already before the Summer semester of 2018. This was due to students taking a break semester and others returning from a break semester, thereby affecting the continuity between allocated supervisors and actual progression. Furthermore, supervisors resisted the use of webinar sessions for group supervision due to fears of IT literacy among students (and staff) and only one supervisor trailed the process in the Summer semester with the intention of providing a report of the process to senior management. As a result of this report, all supervisors were expected to “try” using webinars for some supervision sessions and this use increased to five in the Autumn semester in 2018. This meant these five were able to submit their recordings as tutorial records and use these recordings for peer review feedback. A project group of four was formed and confirmed only after the Summer semester which had four main tasks, namely, webinar lecture delivery; supervision training, development and support; administrative support and communication and overall oversight of the content, process and experience. Stream-lining the assessment meant that in-text assessment feedback was abandoned but the use of a marking rubric was maintained.

Conclusion and recommendations

The data collected for this paper analysing the introduction and monitoring of the CAPP in a WP private business college in the UK indicated that the CAPP was an ideal “container” for key pedagogical strategies involving strength-based teaching and assessment, WBL and action learning sets. It was also an ideal “leveller” considering the student experience, submission and pass rate were good. These strategies enabled the development of reflection, employability skills and confidence evident in the content from formative submissions. Live webinar lectures, although not well attended, do provide the students with flexibility and the opportunity to view recorded content again i.e. positive student experience. Staff and supervisors are pivotal to the success of the process and overall positive experience by the students. However, the data also indicated several complexities:

- attendance numbers fluctuate and are difficult to monitor and “enforce”;
- there remains a disconnect between the webinar and the supervision;
- capability and competency of staff requires improvement; and
- whether the use of webinars add to the student experience is not conclusive.

These findings have a direct impact upon the quality of the student experience, the quality of the projects and as such the quality of satisfaction from industry were applicable (projects engaged with industry). These also impact upon the effectiveness of the WBL ethos embedded within the programmes from the level 5 modules of PPDI and EVRE. The lack of attendance can be associated with a lack of self-directed learning (autonomous learners). The disconnect between the webinar (theory) and the supervision (application) is a fundamental aspect of WBL. The ability by staff to facilitate learning (mode 2 knowledge) is another fundamental aspect of WBL.

In order to inform future development and other institutions in the adoption of CAPP in conjunction with their WIL/WBL/HDAs programmes, the data revealed that in combination with other key pedagogical strategies, CAPP do provide an ideal culminative experience to a degree and to student experience. However, more research related to the correlation between the CAPP and other factors would be recommended such as the correlation of success in a CAPP and:

- the use and impact of IT such as webinars;
- attendance rates of webinars and supervision; and
- traditional one-to-one supervision and action learning sets.

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