

DOING YOUR OWN THING YOUR OWN WAY: THE DEVELOPMENT OF AN MSc IN ENTERPRISE BY LEARNING CONTRACT

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ABSTRACT

The paper describes the process of developing an MSc course in Enterprise using a learning contract model. The concept of a learning contract is described and there is a description of how the course has been put together. The paper majors on experiences with the associates taking the course, with particular comment being made on the pedagogical side reflective comments provided. The learning contract format is one that shows potential for developing a student-led curriculum for Masters programmes, and finds particular application where work-based learning is to be incorporated.

Keywords: Masters courses, Learning contracts, Enterprise, Pedagogy

1 INTRODUCTION

Approximately 25 years of experience suggests that for most students taking Product Design degrees their final year project is simply a means towards obtaining a degree. Once it has been completed it is shelved, forgotten and sits around, usually as a semi-functional item that needs a couple of years' development to be useful, even if the students gained a first-class degree. The major purpose of the project is as a portfolio demonstrating their skills.

But for some the project provides intrinsic motivation that drives them forward, only to meet the artificial time stops at the end of the course. And for some projects the University feels that here is a really good idea that can be exploited – and how could that student enthusiasm produce a payback? These students could do more.

In the last ten years or so London South Bank University (and several others) have developed learning contract based Masters degrees for Knowledge Transfer Associates, particularly in food technology. An individual masters course is described within a learning document, allowing the associate to take any arrangement of existing modules and allowing flexible options outside of the existing unitary or modular arrangements.

The approach relied heavily upon the academic supervisor and used their knowledge of the associate's subject area and educational systems. In practice this was a supervisor-led approach that needed considerable work to develop documentation to obtain individual validation through all the appropriate and necessary University caveats.

In 2005 the University supported two graduates as Enterprise Associates (EAs) to develop their projects, providing office space, facilities, materials, help with intellectual property and a bursary. This developed into an MSc in Enterprise by learning contract in 2006, where the EAs develop their course using existing or self-developed units.

2 LEARNING CONTRACTS

These are a process of documenting an agreement between a learner and an educational authority: tutor, advisor or institution. They are written agreements that activities will take place to achieve defined goals which vary from one individual to another.

In reality, the contract is not a binding agreement, but is a negotiated flexible arrangement that can usually be renegotiated if circumstances change [1].

Learning contracts can be used in many educational circumstances, at any level from primary school to PhD. They may be used for individual assignments where the outcomes are negotiated – frequently found in Health education – or may be used for partial or complete educational programmes, as has been done here.

The approach passes significant control of ownership of the education to the learner whilst ensuring sufficient rigor is contained for validation by the educational institution concerned. The advisors' position is crucial as this determines how the contracts are developed, the acceptability of the validation, the appropriate level standards, and ensures outcomes and processes meet learning objectives.

A contract is likely to contain sets of learning objectives, strategies to be taken to achieve these objectives, evidence that to ensure the objectives are achieved the criteria used in the assessment. There will probably be a time plan associated with each learning outcome and details of renegotiation processes that may be taken.

Learning contracts are fairly common within Health education, where they are frequently limited to single project-based course components. The first exponents of the process were probably Roffey Park in Horsham in conjunction with Sussex University in the 1980s, where work-based Masters degrees were developed. Contracts have since been used in work-based learning in many Universities.

The intention is not to provide an outline of how to go about constructing such a contract: this has been covered in several other texts [1-3]. Within the art and design sphere Jerrard and Jefsoutine [4] includes an outline of their web-based system.

3 RATIONALE BEHIND THE COURSE

3.1 Prior experience

Experience in developing individual Knowledge Transfer Associates' Masters programmes meant that one of the objectives with the MSc in Enterprise was to simplify procedures for learning contracts and make them student-centred rather than supervisor-centred, putting the onus for the educational process into their own hands, giving the supervisors a less daunting task to perform through setting up an agreed procedure for the individual contract validation.

3.2 External benchmarks

As well as meeting students' requirements, the course had to be at the accepted level within the university framework, meeting external benchmarks: this means it has to meet the Masters level descriptor outcomes set by the UK Quality Assurance Agency [5]. It would also have to meet the University's standard requirements of length and credit rating, specified as 180 Credit Accumulation and Transfer points (CATS points) where each point represents a nominal ten hours of study. Included within this would normally be a project, in this case an Enterprise Project, taking one third of the CATS points. This seems to be a reasonably standard UK Masters arrangement, although by no means universal. At London South Bank the way that the overall points score is normally broken down is into units of 15 points each, although in a number of instances units of 30 points are agreed and validated: other institutions may use the term *module* rather than *unit*.

3.3 Development of the contract

The process of development of the contract became the central plank around which the rest of the course hung, rather than round the specific enterprise being developed – which had felt at an earlier stage to be more centrally important. The result was a compulsory 15-CATS point Learning Contract Negotiation unit. Other learning contract-based courses frequently have a similar unit, which may be called something like a self-assessment portfolio and aimed at finding gaps between where the learner is and where they want to be, which may be motivated by their desire for professional recognition [6].

4 THE PROCESS OF PUTTING THE COURSE TOGETHER

Central to this development is that the students need to develop not just their own product ideas but also their own course.

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Figure 1 Course concepts

Figure 1 gives a visual indication: student direction is at the centre of the course. This is supported by the Learning Contract Negotiation unit and the Enterprise Project, with the rest of the course subservient. The major supporting units are work based; these cover aspects of learning that are essential to achieving the purposes of the Enterprise Project, but are not the project itself. A number of these have been validated for the course – *Intellectual Property Development, Prototype Development, Testing and Validation and Technical Conference* – these are learning descriptors where the individual content is made appropriate to the individual's Enterprise Project and plan of work. Outside are existing Masters level units from the University. These can be from the Business, Computing and Information Management faculty or the Engineering, Science and Built Environment faculty, but others from the rest of the University could be incorporated if they were suitable. Outside and subservient to this are the arrangements that enable it to happen, such as timetables, level descriptors, administration and examination board regulations. These do not drive the programme and are flexible enough to accommodate the needs of the associates and their projects.

5 PEDAGOGIC ISSUES – CAPTURING THE ESSENCE OF 'WHAT I WANT TO DO'

In negotiating the learning contract Enterprise Associates (EAs) are challenged significantly to transform their mode of learning from teacher-driven to learner-centred. The Advisor is also challenged to subjugate the urge to be instructive and instead adopt the position of coach, guide, mentor, standard-bearer, and critical friend. So the arena in which the learning contract becomes negotiated is a place where 'traditional' approaches to learning are critiqued, de-constructed as appropriate, and re-assembled around the specific learning needs and styles of the EA. Within this arena – this learning laboratory – the Advisor engages consciously in the duality of being both learner and tutor, and the EA is taken on a guided tour of learning how to learn. The outcomes of this negotiated learning process finally yield a unique alignment between the EA's learning style and their selected instruments of assessment, and between the course content and learning outcomes.

In terms of the delivery of the Learning Contract Negotiation course unit, the prevalence of cyclical patterns of learning and a range of learner contract typologies have been

observed among the EAs, which in the specific application of the learning contract need to be more fully understood. The observed cyclical behaviour pattern refers here to the process of transfer of 'ownership' of the learning process from the Advisor to the EA. Traditional values praxis around teaching and learning place ownership of academic knowledge and expertise in the hands of the tutor. So the process of negotiation demands both the Advisor and EA to become conscious of this power relationship. With skilful use of reflexive discourse and coaching skills, it becomes possible to diffuse this power relationship to a level where exploratory learning can begin. It has been observed that the unique conditioned states and styles of learning of EAs mean the cycles of transfer of ownership of their learning are different. Thus, EAs who come to the negotiating table with in-built propensities for independent learning will rapidly take ownership of their learning. On the other hand, conditioned dependent learners tend over successive sessions to engage in 'cycles of denial' of ownership of their learning. Eventually, with persistent, sensitive, and timely interventions by Advisors, the overwhelming majority of EAs manage to make the journey toward realizing full ownership of their learning. Inevitably, however, there will be a few EAs who will need more time to achieve this particular goal.

In addition to ownership of the learning process, the contract negotiation process also throws up other interesting challenges and dilemmas. Issues of intellectual property ownership, start-up and feasibility costs, and time for business development have made it difficult for EAs to reconcile their personal aims and aspirations with those of the funding body and the institution. Most EAs also find it problematic to articulate their prior learning and experience in ways that satisfy the appropriate m-level descriptors. Advisors have at times also found it difficult to articulate and transmit their own tacit learning and experience during the teaching and learning sessions.

In terms of learning contract thus far the following typologies have been observed. These are put forward as propositions that need validating in further work:

1. Backward negotiated learning contracts (BN);
2. Forward negotiated singular learning contracts (FN-S);
3. Forward negotiated dual learning contracts (FN-D);
4. Forward negotiated 'blue skies' learning contracts (FN-BS);
5. Purely portfolio-based learning contracts (PPB).

Table 1 elaborates these five types of observed learning contract typologies.

Table 1 Observed Learning Contract Typologies

Process Criteria	BN	FN-S	FN-D	FN-BS	PPB
Learning Outcomes	Mix of re-contextualized, predetermined and negotiated learning outcomes, aligned to EA's core needs.	Mix of re-contextualized, predetermined & negotiated learning outcomes, aligned to EA's core current & future learning needs.	Mix of differentiated re-contextualized, predetermined & negotiated learning outcomes, aligned to EA's core current & future learning needs.	Reasonably clear contextualization of negotiated learning outcomes emerging from EA's current & future learning needs.	Clear articulation of academic themes emerging from EA's prior experiential learning that aligns with the award being offered.
Stakeholder Issues	Availability & accessibility of existing course units. Alignment of existing course units with EA's knowledge & skills needs. Alignment of EA's personal aims with those of the institution	Availability & accessibility of course units & alignment with EA's learning needs. Alignment of EA's & institution's aims. Intellectual property, funding & timing constraints.	Availability & accessibility of course units & alignment with the EA's learning needs. Alignment of EA's & institution's aims. Intellectual property, funding & timing constraints.	EA's aims may be at variance with those of institution, particularly regarding intellectual property, funding, & timing constraints.	Compliance of EA's claimed prior experience & knowledge with standards of institution's award. Alignment of claimed academic themes with awards' philosophy.
Evidence in context	Mix of tutor & student-centred delivery, with strong elements of reflexivity in negotiated aspects of contract	Mix of tutor & student-centred delivery, with strong elements of reflexivity in negotiated aspects of contract. Significant opportunity to shape future context of ideas.	Mix of tutor & student-centred delivery, with strong elements of reflexivity in negotiated aspects of contract. Significant challenges in shaping & differentiating contexts in which evidence is produced.	Challenging to both EA & tutor because of conceptual & ill-defined nature of project/idea. Context is not in the present & so by definition cannot be evidenced.	Student-centred delivery, exclusively reflexive, & negotiated. Need to revisit, re-construct, & articulate substantially context in which evidence was produced.
Evidence in Content	Mix of predetermined & negotiated subject matter, aligned with course & unit outcomes & addressing EA's knowledge & skills weaknesses.	Need to align course & unit learning outcomes with EA's learning needs will demand balancing of levels of negotiated & predetermined subject matter.	Need to align course & unit learning outcomes with EA's learning needs will demand balancing & differentiation of levels of negotiated & predetermined subject matter.	Need to align course & unit learning outcomes with EA's learning needs will demand repeated extensive negotiation & specification of subject matter.	Alignment of claimed academic themes with award philosophy being sought will need extensive verification of what has been learned & experienced.
Teaching & Learning Methods	Mix of traditional methods, exploratory research, active involvement in conference & forums, reflective thinking, documenting, counselling & guidance	Lectures, seminars, exploratory research, active involvement in conference & forums, reflective thinking & documenting, portfolio work, counselling & guidance.	Lectures, seminars, exploratory research, active involvement in conference & forums, reflective thinking & documenting, portfolio work, counselling & guidance.	Brainstorming sessions, exploratory research, active involvement in conference & forums, reflective thinking & documenting, portfolio work, counselling & guidance.	Reflective thinking & documenting, portfolio work, counselling & guidance.
Assessment Instruments	Mix of predetermined & negotiated assessment instruments.	Balance of formal assessment instruments, unit-based portfolio work verified by expert oral examination &/or external verification.	Differentiated elements & balance of formal assessment instruments, unit-based portfolio work verified by expert oral examination &/or external verification.	Changing balance of formal assessment instruments, unit-based portfolio work verified by expert oral examination &/or external verification.	Comprehensively presented & communicated portfolio of work, verifiable by expert oral examination & external validation

6 ASSOCIATE OUTCOMES

Projects have reached functional prototypes and planned production. James Barnham's, Nova-Flo system for preventing baths overflowing has been on the Dragon's Den television programme and he has since been offered capital to reach production tooling. Several other prototypes have been produced.



Figure 2 Hydrofoil kite surfer prototype

7 DEVELOPMENTS

The process has already been expanded: ktp associates so far developed their own learning contracts, one of whom has completed his MSc. It is being expanded further to include a Professional Engineering MSc and may in future include general MScs.

8 CONCLUSIONS

The process successfully returns control of the educational process to the learner and empowers them as independent, autonomous learners. Negotiating of the contract must be at the centre, allowing understanding of educational processes and the project topic.

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