<u>Final report eSTEeM -</u>

Measuring the Impact of the Learning Design and Course Creation Workshops

Project Title: Measuring the Impact of the Learning Design and Course Creation

Workshops

Keywords: Learning Design, Course Creation, professional development, China

Lead: Tom Olney

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Key staff associated with the project: Mark Endean, Duncan Banks, Daphne Chang,

Lin Lin, Bart Rienties

Contact: Tom Olney

Executive Summary

This project aimed to measure the impact that a professional development offering for academics tasked with designing open, online and distance learning called the 'Learning Design and Course Creation (LDCC) Workshop' had on the individuals who attended it, and the institutions they came from. To date, around 1000 participants from 9 separate OU/HEI have taken part in 37 instances of the LDCC Workshop. The participants were mostly from China, but some were also from Belarus. Of the 37 instances, 13 were facilitated face-to-face on the OU campus, and 11 were facilitated face-to-face in China. A further 9 were delivered using a hybrid approach where the participants were co-located face-to-face in China and the facilitators were online in the UK. The remaining 4 workshops were facilitated entirely online with both participants and facilitators distributed.

The LDCC Workshop is based on the approach to learning design established at the OU by the Open University Learning Design Initiative (OULDI) and current practice in module production in the STEM faculty. It brings together open and distance learning (ODL) educational principles, tools, activities, and examples of practice currently in use at the OU which, for the purposes of this project and the deliverables it produced, are referred to as LDCC approaches. Through a series of structured, collaborative activities the LDCC Workshop adopts a social-constructivist pedagogy that challenges participants to design an ODL course of their own in a compressed timeframe which they then present to their peers. Student-focused design and quality assurance are key elements of the workshop. It has run since 2014, and has been designed and facilitated by Tom Olney, Duncan Banks, and Mark Endean who originally started this evaluation project. However, as the project has developed, other academics and researchers have become involved, notably Daphne Chang, Lin Lin, and Bart Rienties.

After delivering the first few instances of the LDCC Workshop we soon discovered that the Chinese OU institutions we were working with were looking for a way to enhance the quality of their ODL and, as in the UK, US, Australia, and Europe, recognized that learning design could provide a mechanism for this. Since the impact of professional development is contested, we wanted to create an evidence base to establish if the workshops were having any real impact and, if so, what kinds of impact they were and what was it about the workshop that was generating this.

The evaluation was based on an iterative approach which took place during four years between 2019 and 2023 and consisted of four phases:

- Phase 0 evaluated feedback data from 220 Chinese OU staff who had participated in LDCC Workshops prior to the start of the project.
- Phase 1 evaluated impact data from around 30 staff from six Belarusian HEIs who participated in the BELL Project in a mixed method analysis.
- Phase 2 evaluated impact data collected from 136 Chinese OU staff via an online feedback instrument.
- Phase 3 evaluated impact data from 14 in-depth qualitative interviews with Chinese OU staff.

Aims and scope of the project

The LDCC workshops are based on educational principles that are relatively well established in the STEM Faculty, the OU, and generally, in Western ODL settings. That is, collaborative and student-focused learning design, constructive alignment, learning outcomes, online activity building, learning analytics, and assessment of and for learning. Their deployment in Belarus and China raised the question of how transferable these pedagogical approaches might be across different institutional contexts and cultures. Prior to the project not much was known about how these principles were viewed, and what their impact might be in Belarusian or Chinese ODL educational institutions that have their own historical and traditional approaches to education.

The two research questions which were originally established to guide the whole project were:

RQ1: How robust and transferable are the identified educational principles and approaches currently being practised at the OU in non-Western ODL settings?

RQ2: How effective are the LDCC workshops as a time-limited professional development activity within the context of developing longitudinal relationships with overseas HEIs?

For RQ1, by introducing learning design to communities (China & Belarus) with a different educational culture, we felt we had effectively set up an experiment to test the universal applicability of learning design approaches. We sought to establish the degree to which the workshops might have led to learning design being adopted and adapted to another contexts, and any barriers or challenges that might have been encountered. We hoped that what we learnt could inform our approach to learning design both with external partners and internally within the OU and STEM. As Senior Manager, Learning & Teaching for STEM, part of my responsibility is to lead on embedding developments and adaptations of learning design for the needs of the faculty. However, practical case studies of learning design are not well represented in the literature and there is little evidence of what it means to 'do' learning design despite substantial interest in the field [1]. In testing OU/STEM learning design approaches in these foreign contexts we hoped we could lend increased credibility to our own context and learn something more about how to best embed learning design into the faculty.

For RQ2, the relationship between the OU and the wider ODL community had become a greater focus of attention (pre-COVID). The International Perspectives on Scholarship and Collaboration session at the 8th eSTEeM Conference 2019 [2] brought together interested colleagues from across the University with visitors from Shanghai Open University involved in international outreach and engagement. At the time of starting the project, the OU's senior executive had 'paused' consideration of the University's international strategy, but we felt this was unlikely to last for ever, and we believed we needed to continue to be involved with overseas bodies, from collaborative research to commercial partnerships.

For example, collaborations such as the ERASMUS+ BELL project (Belarus), IDEAS (Africa) and TIDE (Myanmar) were continuing, and all involved a strong element of professional development for design and delivery of ODL. Some of the

members of this project team also had a long-standing relationship as mentors in a visiting scholars programme funded jointly by the China Scholarship Council (CSC) and by the Sino-British Fellowship Trust which saw staff from multiple Chinese HEI typically spending between 3 to 12 months at the OU developing their skills and knowledge on a range of ODL related topics. Between 1998 and 2020 incomplete records suggested this programme had supported in excess of 48 visiting scholars, with several more visiting since [3]. In 2017 a comprehensive eSTEeM project brought to light the substantial long term impact the OU plays in the lives and work of these Chinese visiting scholars and their professional communities [3].

Given these examples of other types of approaches to international engagement, we felt exploring evidence of the impact of the LDCC workshops as short-term projects (typically a few days) in various HEI in Belarus and China could helpfully contribute to conversations about international relationships, if the OU decided to reconsider exploring a strategy in the future.

At the outset we did not expect this project to become so comprehensive, but by developing relationships with the participating OU (particularly in China) it became clear that we were filling a real gap for many of the institutions. Increasingly our colleagues told us that their sector was looking for support in addressing two very real challenges. Firstly, they perceived that there was a significant public perception that Chinese ODL was of a lesser quality than the traditional HE sector, and they were looking for approaches that could enhance the quality of their learning and teaching offering. Secondly, they were being instructed by the Chinese Ministry of Education, and their own senior leaders, to move their ODL from a traditional knowledge transfer model to a more student-focused pedagogy, but they did not have practical guidance for what this meant or how they could do it.

Once these challenges had been identified we tailored and shaped the LDCC Workshop accordingly.

Activities

This project undertook a largely iterative and mixed methods approach to gathering data. Each phase built on the findings of the previous one. For example, in phase 0 we had started by gathering data immediately after workshops had completed and this

gave us some interesting results, but as our participant base grew, and in an attempt to address RQ2 more substantially, in phases 1, 2 & 3 we started to gather longer term, reflective data based on extent of implementation rather than just on intention.

The activities were undertaken between November 2017 and December 2023. The project was officially approved in August 2019.

The key activities for each phase are summarized in table 1 below:

Phase	Activities
0	-facilitated seven LDCC Workshops in China between Nov 2017 and June 2019 for Shanghai OU, Guangdong OU, and Jiangsu OU – approx. 220 participantscollected feedback data on ease of implementation of LDCC approaches and what needed to change to make implementation easieranalysed data using International Board of Standards for Training Performance & Instruction (IBSTPI) Competency Framework. [4]
1	-facilitated LDCC Workshop as part of Enhancement of Lifelong Learning in Belarus (BELL) Project, May 2018developed a trial survey instrument (on MS Forms) and an interview instrumentcollected data (n=19 surveys, n=9 interviews) -analysed this data plus other sources using Academic Professional Development Effectiveness framework (APDEF) [5].
2	-located and collated names and contact details of LDCC Workshops and participants trained between 2014 and July 2020 from Chinese OU network (639 participants, 25 instances, 10 institutions) -developed a survey instrument (MS Forms) and sent to 524 participants. Received 134 responsesanalysed data using the task perception and subjective educational theory elements of the Personal Interpretive Framework (PIF) [6].

3	-identified 14 key stakeholders and past participants of LDCC
	Workshops from Chinese OU network.
	-HREC approval received
	-developed a semi-structured interview instrument designed to
	elicit qualitative data about impact on institutions and their
	professional teaching identity.
	-14 interviews completed from 5 institutions.
	-analysed data using Reflexive Thematic Analysis (RTA) [7] and the
	PIF [6].

Table 1: summary of key activities in each phase.

Findings

The key findings for each phase of work are described in detail in the individual deliverables, but for the purposes of this report are also summarized in table 2 below:

Phase	Phased research	Methodologies	Findings
	questions		
0	RQ0.1: How	-IBSTPI	RQ0.1:
	easy/difficult did	framework [3]	62% difficult or very
	Chinese practitioners	consists of 22	difficult
	perceive it would be to	competencies	38% easy or very easy
	implement LDCC	to code	
	approaches?	qualitative	
		results from	
	RQ0.2: What did	survey to.	RQ0.2:
	Chinese practitioners		1. The way teams are
	perceive as the most		established and operated
	important thing that		2. Technical systems
	would need to change		(platform/website/IT)
	in order to make the		3. Student-centred
	implementation of		approach to pedagogy
	LDCC approaches		
	easier?		

	RQ0.3: Which IBSTPI [4] skills and competencies might Chinese practitioners want to develop to leave them well placed to successfully implement LDCC approaches?		4. Bureaucratic systems (organisational/institution al/national) RQ0.3: learning designer as a 1. professional: keeping up to date with developments 2. collaborator: working in a team 3. communicator: policies, guidance, f2f and online conversations 4. student-focused educator: ways to get closer to students
1	RQ1.1: Which LDCC approaches were reported to be most effective in designing ODL courses?	APDEF [5] consists of 20 impact indicator statements across 4 focus areas.	RQ1.1: APDEF focus areas: 1. Teacher knowledge, skills, and practice, and 2. Teacher reflective practice and scholarship, were over-represented in the LDCC approaches. APDEF focus areas 3. Student engagement and enhancement of learning and 4. Student approaches to learning were under-represented in the LDCC approaches.
	RQ1.2: To what extent could the LDCC Workshop be utilised		RQ1.2: LDCC Workshop highly relevant and effective as a PD activity

	as a PD activity for other HEI?		for supporting the design of ODL.
2	RQ2.1: Can PD which aligns LD frameworks with constructivist and student-focused pedagogies support the changing professional identities of teachers when they are tasked with designing ODL?	Task perception and subjective educational theory elements of the PIF [6].	RQ2.1: 69% of participants went on to implement at least one LDCC approach, of which the most heavily referenced was student-focused learning. - 89% said 'designing student-learning was the largest perceived benefit. - from 134 responses 129 of participants said the LDCC had changed their way of thinking about designing ODL 'moderately' (38), 'quite a lot' (51) or 'a lot' (40). - positive relationship between extent of implementation and (i) changes in thinking about ODL (ii) perceived ease of implementation
3	RQ3.1: How, in what ways, and to what extent, were LDCC approaches implemented by the participants?	RTA [7] was used to code the 14 interviews and generate impact narratives.	RQ3.1: six LDCC impact narratives identified: 1. 'looking for opportunities' narrative 2. 'student profiles' narrative 3. 'indirect UKOU inspiration' narrative 4. 'learning design framework' narrative 5. 'constructivist' narrative

6. 'learning design process' narrative RTA [7] was RQ3.2: How, in what RQ3.2: whilst evidence ways, and to what used to code was found for impact in extent, did LDCC the 14 all elements of the PIF, the approaches impact on interviews main impacts were found the professional against all the on the self-image, selfteaching identities of elements of the esteem, and task PIF [6] i.e., selfthe participants? perception of the image, selfrespondents. This was esteem, task because after attending perception, job LDCC respondents were motivation, clearer about what they future understood being a perspective, 'good' ODL teacher to be, and subjective and could compare educational against that. theory.

Table 2: summary of key findings in each phase.

Impact

The main impact this work has had has been on the participants of the LDCC Workshops, but there is also evidence of impact on the Chinese HEI and in the way that the STEM faculty 'does' learning design.

In phase 0 we were able to establish that about 2/3 of the participants thought it would be difficult or very difficult to implement LDCC approaches into their context, but that difficulty was caused by things that they felt were mostly out of their control. These included the HEI's approach to establishing and operating module teams, the technical systems that the HEI provided to support them, and the institutional bureaucracy. There was also a proportion of participants who highlighted that moving to a student-focused pedagogy would also be problematic.

However, when these things were enabled by the BELL project in phase 1 (in particular, the ability to work in module teams and the provision of a supportive bureaucracy) the evidence pointed towards a far more productive and impactful experience for the participants – especially in the medium term. Using the APDEF as a framework, phase 1 established that the LDCC workshop was very effective at building teacher knowledge, skills, reflective practice, and scholarship, although less so for student engagement, enhancement of learning and student approaches to learning.

In phase 2 we gathered data over a longer time span, contacting as many previous participants as we could and established that many of them had since gone on to implement at least one of the LDCC approaches into their practice. Further we were able to show early evidence that the social-constructivist and student-focused approaches we utilised as the pedagogy for the LDCC workshop had had an impact on the professional teaching identity of many of the same participants, changing the way they thought about designing ODL.

So, in order to follow up on these very promising findings, for phase 3 we interviewed fourteen past participants to identify in greater detail how LDCC approaches had been implemented into their practice and were able to establish six distinctive 'impact narratives'. Further, the interviews revealed further depth about the nature of the changes to the professional teaching identity of the participants from the previous phase. In particular, many interviewees explained how their self-image, self-esteem, and task perception of what it means to be a 'good' ODL teacher were all enhanced by their experience of the LDCC Workshop and then having the opportunity to implement LDCC approaches into their practice.

Therefore, in order to address RQ1, taken together this evidence base suggests that the identified educational principles and approaches currently being practised at the OU (which came to be known as LDCC approaches) are in fact very robust and transferable when part of professional development activity that also models the social-constructivist and student-focused environment which is being encouraged to be adopted. Despite being time-limited to between 20 to 24 hours there is much in this project to suggest the LDCC workshops provided effective professional development.

In order to address RQ2 the impact of alternative approaches to professional development need also to be considered. A previous eSTEeM study [3] documented the impact of 14 visiting scholar exchanges on the scholars themselves, their institutions and at a national level in China. It found that there had been substantial impact in all three areas with the OU continually regarded as the exemplar amongst ODL institutions around the world within China. This matches the experience of facilitating the LDCC Workshops. Upon returning to China [3] was able to describe how 100% of the interviewed scholars had gone on to produce academic outputs with 90% receiving promotions, based on the work undertaken from their visits. Institutionally, many of the discoveries and innovations that the scholars uncovered went onto to be embedded into the policies and strategies of Chinese HEI.

The various deliverables from this study demonstrate that the LDCC Workshop programme has had impact in similar areas to the visiting scholars programme. For example, quality enhancement, module design and developments in the VLE provision were all highlighted in [3] as key motivating reasons for scholars to visit the OU. In this study impact has been particularly noteworthy when instances of the LDCC Workshop have been repeated annually, and implementation has been actively supported by the particular Chinese HEI administration. This has provided for the development of a really meaningful relationship between the OU facilitators and the senior host staff. The clearest example of this is with Jiangsu OU (JSOU), whose staff make up nearly half of the total overall participants to the LDCC Workshop. Since 2019 JSOU have invited the OU to facilitate an annual professional development programme for 90 of their staff members of which the LDCC Workshop was the original contributor and (as the interviews with JSOU staff in phase 3 suggest) has now become essential to their institutional quality enhancement strategy for teaching and learning. Whilst there is evidence of impact with the other institutions, it is not as significant as with JSOU.

Therefore, now that there is enough initial evidence to demonstrate impact exists, this eSTEeM Project will evolve into Open Societal Challenge (OSC) 187, 'Enhancing the quality of learning and teaching in the Chinese Open University system' which will focus on uncovering the full extent of impact of the LDCC Workshop on the institution of JSOU [8]. The key deliverable from OSC 187 is to develop a detailed impact case study which will be submitted as part of Research Excellence Framework bid in 2028 (REF28).

It is commonly asserted that there is no better way to learn how to do something, than to teach it to someone who knows little about the subject. Being tasked with compressing the key features of OU learning design and course creation approaches into a workshop environment with between 20 and 24 hours contact time has been a significant challenge that has required clarity of thought, identification of the client's needs, professional expertise, and real collaborative skills. Further, the development of the LDCC Workshops has been an opportunity to develop a deep personal knowledge base and practice ways of presenting approaches to learning design that is of direct relevance to daily practice. Recent STEM approaches to learning outcomes, for example, have come as a direct result of developing practice related to the LDCC.

Over the course of this project this work has been enabled by the support of the Business Development Unit (BDU) who have provided contracts and a variety of logistical support that has enabled us to travel to China to deliver the workshops. This past work is very much appreciated, and we hope the findings from this project and the potential of OSC 187 continues to be a driver for future support. As we have tried to demonstrate here, real international impact, be it via LDCC Workshops or visiting scholar programmes, is a long-term aspiration that needs to be supported by institutional strategies.

We also continually came up against issues concerning the OU's reputation overseas, as highlighted in Endean and Chang [3]. The OU is widely held in high regard, yet no strategy that we are aware of exists to harness academic exchange and other activities, as reported here, to enhance or even justify that high esteem. Any efforts that are being made are confined to small pockets driven by individual, rather than institutional, motivations that are typically uncoordinated and disjointed. An important conclusion that comes out of this project is that the LDCC workshops (and by extension other high quality OU offerings) represent far more than a contracted professional development service. When developed with client needs in mind, and facilitated by experts with extensive local experience, they have had substantial impact on the global development of ODL. However, in isolation, this impact is diminished. Whilst this project has shown that the LDCC workshops play a vital role in maintaining and enhancing the OU's international reputation as a world leader in this field, there is more to be done to leverage this impact and build a coherent strategic approach that will ensure that the valuable international reputation of the OU can continue to be justified.

List of deliverables

To date, deliverables include:

- 1. the publication of three peer-reviewed academic journal papers (deliverables 0.3, 1.3 & 2.1) with another under consideration (deliverable 3.2).
- 2. the external presentation of research at two international conferences and the publication of three related conference proceedings (deliverables 1.1, 1.2 & 3.1).
- 3. the internal presentation of research at the OU (deliverables 0.1, 0.2, G.3)
- 4. a bespoke online learning design tool (deliverable G.2)
- 5. a short report (deliverable G.1)

The deliverables for each phase of work are summarized in table 3 below:

Phase	Code	Deliverables
0	0.1	Olney, T., Endean, M. & Banks, D. (2019) Measuring the Impact of the LDCC Workshops. eSTEeM Induction poster presentation, 22 Oct 2019. https://www5.open.ac.uk/scholarship-and-innovation/esteem/resources/tom-olney-mark-endean-and-duncan-banks-measuring-impact-learning-design-and-course
	0.2	Olney, T., Endean, M. & Banks, D. (2020) 'More Learning Designers are Needed': identifying the instructional design competencies required for the successful implementation of the UKOU learning design approach in three Chinese Universities. 9th eSTEeM Annual Conference. 29–30 June 2020, Open University UK. https://www5.open.ac.uk/scholarship-and-innovation/esteem/resources/tom-olney-mark-endean-and-duncan-banks-%E2%80%98more-learning-designers-are-needed%E2%80%99-identifying
	0.3	Olney, T., Li, C. and Luo, J. (2021) Enhancing the quality of open and distance learning in China through the identification and development of learning design skills and competencies, <i>Asian Association of Open Universities Journal</i> , Vol. 16 No. 1, pp. 61-78. https://doi.org/10.1108/AAOUJ-11-2020-0097

1	1.1	Olney, T., Endean, M. & Banks, D (2020) Evaluating the impact of the Learning Design and Course Creation (LDCC) Workshop on the participants of the Enhancement of Lifelong Learning in Belarus (BELL) Project. Proceedings of the Final Conference of the Erasmus+ Project, Enhancement of Lifelong Learning in Belarus, pp. 12-19, 13-14 October 2020, Brest State Technical University, Brest, Belarus. https://rep.bstu.by/handle/data/8411
	1.2	Olney, T., Endean, M. & Banks, D (2020) How might the cultural learning preferences of the participants of the Enhancement of Lifelong Learning in Belarus (BELL) Project, impact on their learning designs? <i>Proceedings of the Final Conference of the Erasmus+ Project, Enhancement of Lifelong Learning in Belarus</i> , pp. 20–28, 13–14 October 2020, Brest State Technical University, Brest, Belarus. https://rep.bstu.by/handle/data/8410
	1.3	Olney, T. and Piashkun, S., (2021). Professional Development for Sustaining the 'Pivot': The impact of the Learning Design and Course Creation Workshop on Six Belarusian HEIs. <i>Journal of Interactive Media in Education</i> , 2021(1), p.10. http://doi.org/10.5334/jime.639
2	2.1	Olney, T., Rienties, B., Chang, D. & Banks, D. (2023) The Learning Design & Course Creation Workshop: Impact of a Professional Development Model for Training Designers and Creators of Online and Distance Learning. Technology, Knowledge & Learning. https://doi.org/10.1007/s10758-022-09639-1
3	3.1	Olney, T., Chang, D. & Lin, L. (2022) The UKOU Learning Design & Course Creation Workshop: Pedagogy and Impact. 35 th AAOU Conference Proceedings, ABST-0038, Vol 4, pp.160-164, 2-4 Nov 2022, Jeju, South Korea. https://www.2022aaou.org/file/Conference%20Proceedings%20-%20Vol.4.pdf
	3.2	Olney, T., Chang, D. & Lin, L. (2023) Implementing online and distance learning design approaches in Chinese Open Universities: lessons from six impact narratives. <i>Distance Education</i> (submitted, with Editor).

General G.1 Report of UNITWIN Network in Distance and Open Learning		Report of UNITWIN Network in Distance and Open Learning:
		https://unitwin.sou.edu.cn/uen/2022/1103/c9505a87436/page.htm
	G.2	The Learning Design Vision Statement Tool, Open Learn:
		https://www.open.edu/openlearn/education-
		development/education/learning-design-vision-statement-tool
	G.3	Olney, T. (2023) Measuring the Impact of the Learning Design and Course
		Creation (LDCC) Workshops. eSTEeM Seminar Series: Scholarship
		Showcase. 22 Feb 2023, MS Teams. https://www5.open.ac.uk/scholarship-
		and-innovation/esteem/events/esteem-seminar-series-scholarship-
		showcase-february-2023

Table 3: a summary of the deliverables in each phase.

Figures and tables

Table 1: a summary of key activities in each phase.

Table 2: summary of key findings in each phase.

Table 3: a summary of the deliverables in each phase.

<u>References</u>

[1] Olney, T., & Wood, C. (2023) Using the Theory of Practice Architectures to establish what it means to 'do' learning design, and the arrangements that enable and constrain practice. *Frontiers in Education*, Vol. 8. https://doi.org/10.3389/feduc.2023.1291032

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University approval processes

Phase 3 of this project was reviewed and approved by the OU Human Research Ethics Committee: HREC/3952/Olney.

Appendices

Appendix C – Deliverable 0.3

Appendix D – Deliverable 1.1

Appendix E – Deliverable 1.2

Appendix F – Deliverable 1.3

Appendix G - Deliverable 2.1

Appendix H - Deliverable 3.1

Appendix I – Deliverable 3.2

Appendix J - Deliverable G.1

Appendix K - Deliverable G.3