Sharing Open Education Practices
Using Technology for Higher Education

‘SHOUT OUT’

A SELECTION OF BEST OPEN PRACTICES WITH TECHNOLOGY

THE FIRST IN A SERIES OF THREE EBOOKS ON THE SHOUT4HE PROJECT.

CONTENTS

INTRODUCTION

In the context of the enhancement of teaching and learning, the shift towards open educational practice (OEP) is significant and allows teachers to develop and innovative practice which we will explore further below. Cronin (2017) includes in the description of OEP a broad range of practices involving open pedagogies and open sharing of teaching experience. The Cape Town Declaration (2007) emphasised the importance of 'open sharing of teaching practices that empower educators to benefit from the best ideas of their colleagues' as a form of open educational practice. The potential of OEP to transform and (re)professionalise teaching and learning by enabling effective pedagogy and increasing digital capacity is also one response to contemporary calls to modernise and transform higher education (HE).

In this respect, Laurillard's (2012) approach to learning design is useful and could be considered an example of an open pedagogic model. Drawing on a conversational framework (Laurillard 2002; see Appendix I), Laurillard et al. (2013:18) suggest "an improving knowledge and practice of learning design may only ever be developed as a natural and ongoing part of the process of teaching." Comparing HE pedagogical development with academic research, they suggest that good practice in learning design could be similar to the development of knowledge and practice in the context of research, where academics are familiar with the requirements of knowledge-building: to build on the work of others (from a literature search), to develop and test their own ideas (through experiment or debate), and to share their results (through publishing). Could the knowledge-building process for conventional and digital pedagogies work in a similar way? Could we support academics as 'teacher-designers'... with respect to their role in creating and designing learning activities?

Laurillard (2012) advocates a shift from the individual design of learning to the co-design of learning, where teachers develop 'pedagogical patterns' as part of an innovative professional learning community. They

- build on the designs of others;
- articulate their pedagogy;
- adopt, adapt, test, and improve learning designs; and
- co-create and share learning designs.

To date, however, there has been little emphasis on individual educators' use of OEP for teaching in higher education, and evidence has shown that only a minority of educators use OEP (Cronin, 2017). One objective of the SHOUT4HE project is to encourage broader uptake of OEP, defined broadly as the open sharing of teaching practices, by fostering some or all of the following stages of HE pedagogical development:

1. discovering and discussing others' work to start articulating one's own pedagogical priorities.

2. designing pedagogical practice and testing it out with students.

3. sharing or disseminating a course pedagogy with others.

THE SHOUT4HE RECOGNITION FRAMEWORK

Our SHOUT4HE project aims to promote the sharing of OEPs which integrate digital technologies into higher education (HE). We developed a Recognition Framework where HE teachers (lecturers and educators in a range of university or post-secondary educational institutions) describe a range of educational practices that make effective use of technology in these contexts. It was important that this tool should be informed by academic literature, and previous frameworks for digital educational practice – that are reviewed in detail in Appendix 1. In addition, the SHOUT4HE Recognition Framework has been designed to be simple, usable by diverse audiences, and indicative of good practice in OEP. It proposes a reflective exercise for the articulation and dissemination of learning and teaching practices supported with technology. It may also serve as a screening tool for HE teachers and practices, and encourage sharing through an OEP approach.

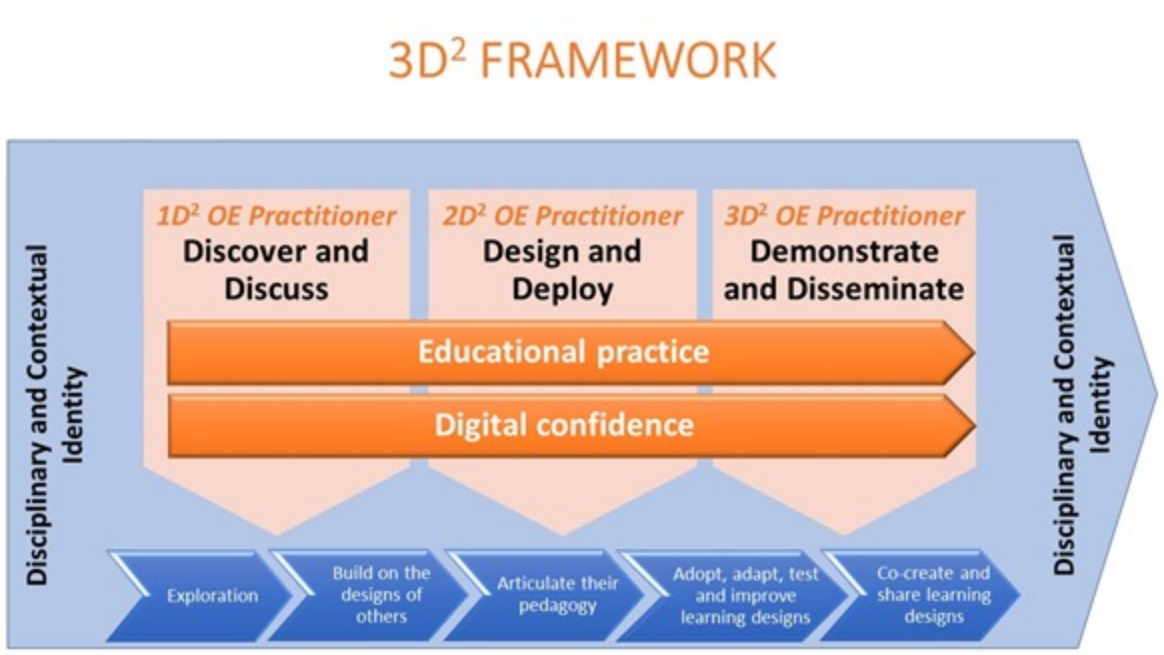


Figure 1: The 3D Framework

The 3D2 Framework is a progressive representation which can be used to map individual or group educational practice. For example, a teacher could place their practice at a moment in time and point towards the direction that s/he wishes to go to. Or, a group of teachers could map their practices and see how these differ from each other. Also, a whole community of practice could map their practice and form clusters of learning and teaching

experience practice that can be interpreted in relation to their discipline, context, and so on.

The framework considers two different dimensions ('Educational Practice' and 'Digital Confidence') in three stages ('Discover and Discuss', 'Design and Deploy' and 'Demonstrate and Disseminate') as described in Figure 1. As you progress through these incremental stages, ongoing engagement with OEP can be tracked in the terms defined by Laurillard (2012): exploration; building on the design of others; articulating one's pedagogy; adopt/adapt/test and improve learning designs; and co-create and share learning designs. This entire process starts and ends with an in-depth reflection on the ways in which your disciplinary and contextual identity is impacted and develops as a result of their engagement with uses of technology and with pedagogical considerations.

We will now consider each dimension in more detail.

Educational practice

This dimension focuses on the experience that teachers create for their students when using technology. Ideally, this involved moving from a focus on the content, delivery and assessment, to a greater autonomous responsibility being negotiated with the learners. An example from the SHOUT4HE project below explains more:

"Teachers shouldn't be the sole source of student learning": graduate neuroscience course in Bordeaux

The importance of peer-to-peer interaction is highlighted in the video by Professor Marc Landry with reference to a 100% online course. This professor of neuroscience describes the main challenge of stimulating student engagement with the course.

Listen to Marc Landry explain more about his online course here https://library.shout4he.eu/video/10 1:12 – 1:53)

He describes the principles behind the course and task design as follows:

We are guided by the principle of creating interaction and participation with learners and between learners. The real challenge in designing this type of course is to ensure that learners do not remain passive behind their screens. I think this type of course can be excellent and very educational, provided learners play the central role in their learning, that they tackle their learning head on, and they take ownership of it by trying to find answers to their questions and by asking the questions themselves. Teachers will act as guides, providing support, but learners will not expect them to provide all the answers. This is especially true in a distance course like this one where students will be working alone on the platform. There shouldn't be the expectation that teachers are the sole source of student learning". The emphasis is thus upon active learning and greater student engagement while the role of the teacher shifts to facilitating this collaborative, learning process.

By "empowering" the learners, the SHOUT4HE framework suggests that the teacher move progressively towards taking roles such as facilitator and moderator of the learning experience. From this perspective, students may expect more autonomy, flexibility with respect to timing, and more choice in how they engage with course content. Also, we expect that at more

advanced levels of development of educational practice, HE teachers may find scalable solutions to extend and sustain teaching innovations, and make sure they become or remain manageable. The success of such innovations, of course, depends on both students and teachers negotiating and sharing responsibility (see Nash & Winstone 2017), as shown in the example below:

Facilitation and feedback: teacher flexibility in language education at Limerick

Liam Murray explains how he uses blogs to encourage students to shift from individual critical thinking to collaborative learning. Following the type of pedagogy employed in this approach demands flexibility on the part of the teacher. The multimodal elements came – unprompted – from the students who were originally asked to write/type blog postings. The teacher's role does become more of a facilitator but also by offering weekly feedback on several blog postings in a separate shared document, the teacher is more heavily involved in the learning process.

Listen to Dr. Liam Murray explain in more detail (https://library.shout4he.eu/video/3)

Digital Confidence

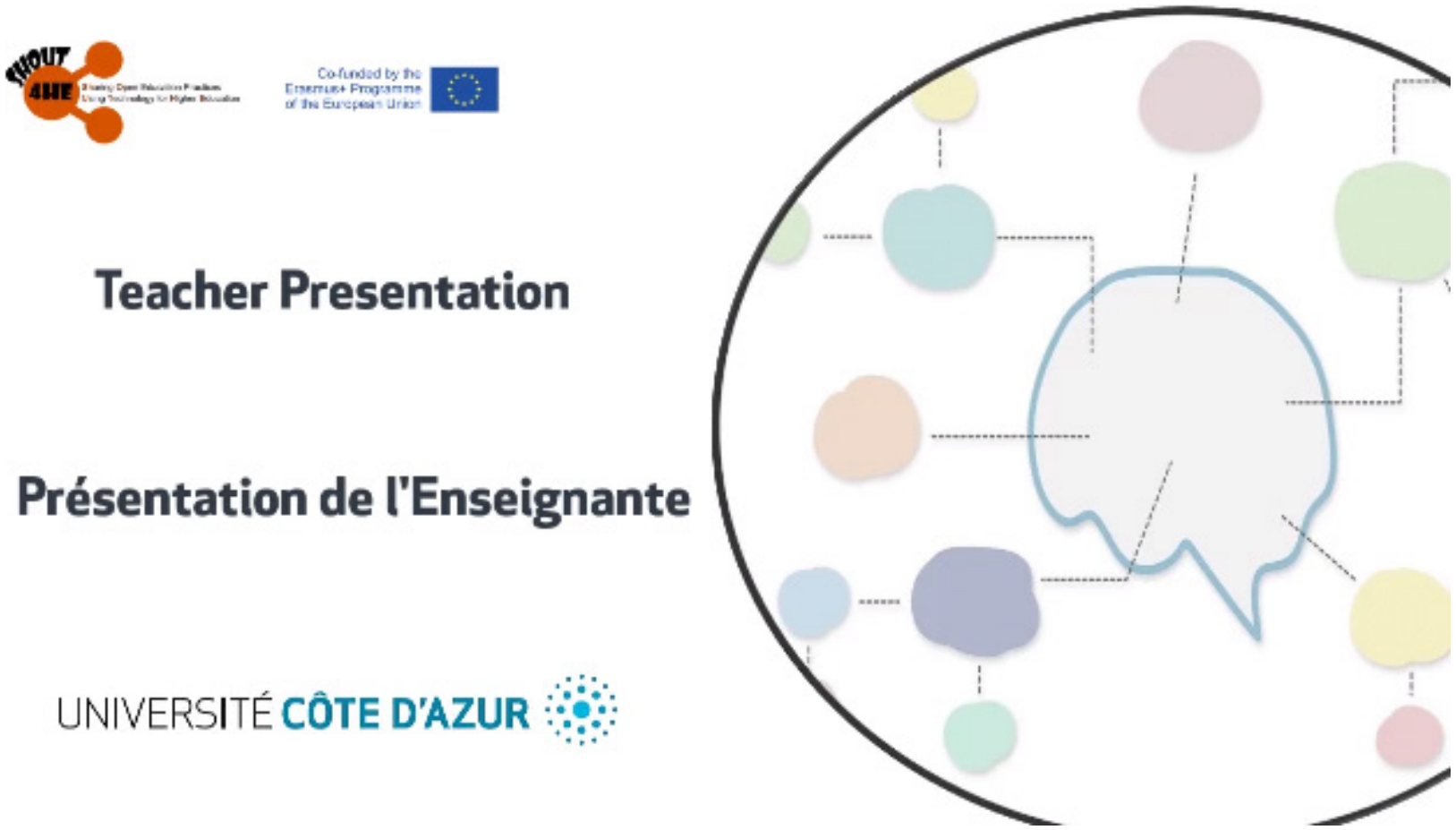
Teachers' level of digital confidence will impact the extent to which they integrate technology in their learning and teaching experience practice meaningfully and effectively. When considering existing models that would guide our own recognition framework, it was important to choose one which was designed around positive language, emphasizing confidence as opposed to a more evaluative, or even judgmental, competence. While comprehensive digital competence frameworks and evaluation tools were carefully considered (see Appendix I), it was also important to us to develop a simple and intuitive model that could engage a wide audience, to enhance the usability and practicality of our framework. Teachers use their digital confidence in many different ways integrated into their overall teaching strategy, as shown in the example below:

Using, reusing, annotating: Constructive alignment in a digital marketing course at Nice

In discussion of her masters course in digital marketing, Inès Hammami stresses the importance of constructive alignment, that is, the coherence between the learning outcomes, assessment methods and teaching and learning activities (Biggs 1999, Biggs and Tang, 2011).

She uses mindmapping tools in both teaching and research:

Mindmapping is a tool that I use in my own research and I've seen that it's a technology which is more and more common in teaching. It allows the teacher to visualise the whole of the course, but also divide it into class sessions. I use this method to help students understand certain concepts and to help them understand the details. It provides the guiding principle which allows me to script each session, define my objectives for a session, and determine what the student will learn in each. I use project-based learning, which means that the students will learn a good deal on their own, by trial and error. I set objectives and guide the students, but there's a lot of weight given to the mindmap which I give at the start of the course so that the students can use, re-use, and annotate it to include their own vision. It functions as a course syllabus.



Listen to Inès explaining her practice design with mindmap (chapter 4) and her recommendations on engaging students as co-creators of the learning process (chapter 6): https://library.shout4he.eu/video/22

Stages

There is an expectation that different levels of engagement are possible in each dimension, as with most of the frameworks we reviewed, which might naturally consist of: (a) general awareness and information regarding the topic; (b) practical and effective skills being demonstrated; (c) a critical awareness and ability to both engage in sharing practice as well as contribute creatively to the domain. This is the perspective which informs the development of the 3D2 Framework. The model proposes three distinct stages which represent different levels of engagement from early exploration to the point where educators feel confident to share their educational practice, and even inspiring others, each of them underpinned by the different stages of development of 'pedagogical patterns' (Laurillard, 2012).

Student freedom, teacher oversight: a digital library of language learning exercises at PXL

Stefan Hulsbosch outlines the key features of a bespoke programme for learning four European languages which his predecessor trialled twenty years previously.

Now his institution has licenses for all students. He explains:

Every student has this programme on their laptop. They can practice and do exercises at any time and anywhere with their laptop, and to a certain extent on their smartphones. It allows the students to do these exercises at their own pace. If they cannot finish in class, they can do the exercises at home. Or if we flip the classroom we ask them to prepare for the next class and do certain exercises in advance.

It's also possible for the teacher to check up on the students. Have they really done the exercises? How many exercises have they done? How much time did they spend? What were the results? We can have a general overview and then details for each exercise for each student. We have complete control over what students do. I use it for practice, my French colleagues also use it for testing.

Listen to Stephan explain in more detail (chapter 2 of https://library.shout4he.eu/video/5).

Discover and Discuss

The stage at which teachers discover and consider new opportunities to empower learners through their learning and teaching practice, interrogate their digital confidence and discover new educational technologies that

may serve these opportunities, and start exploring their own disciplinary and contextual identity in relation to these issues. At this stage, the focus is still on the individual design of learning, but the practitioner is starting to open her/his practice through discussion, exploring and reflecting on other options, and is open to building on the designs of others.

“It’s just about having a go:” an open green-screen video activity for education students at Cardiff Metropolitan University

Dr Nick Young taught his students on an Education Studies course to use stop-motion animation technology to create learning materials for primary school pupils.

Listen to Dr. Nick Young explain in more detail – 00:48 – 02:13 (https://library.shout4he.eu/video/6)

His goal was to foster independent learning - I show them an example I’ve done and then let them get on with doing it themselves and I think that is the best way because they get to learn from their mistakes [...] I guess with all new technologies, it’s one of those things you have to have a go at using it [...] It’s just about having a go, learn from your mistakes.

Design and Deploy

The stage at which teachers engage in the design and deployment of initiatives

to empower learners through their learning and teaching practice, use new educational technologies to do this while developing their digital confidence, and find the disciplinary and contextual fit for their new educational practice. At this stage, a shift from the individual design of learning to the co-design of learning commences, where teachers articulate their pedagogy and start to adopt, adapt, test and improve learning designs.

"If it's wrong, why is it wrong?": a flipped classroom approach to nursing education at PXL

Adinda Toppets's team developed learning materials for a blended course in nursing. She underlines the advantages of remote, independent access to content in the form of capsule videos before hands-on practical lab sessions on campus:

The student watches the videos, then after each video, processing questions are provided where the student answers multiple choice questions, for example. After completing the questions they will receive feedback. 'Did I answer that correctly? If it's wrong, why is it wrong? What is the correct answer then?' In this way, we can actually emphasise particular teaching points that we consider important. Filling in the questions also has a learning effect for the students.

Listen to Adinda explain in more detail (chapter 2 of https://library.shout4he.eu/video/1).

Demonstrate and Disseminate

The stage at which teachers demonstrate the impact of their innovations through evaluation of their practice and disseminate their initiatives to empower learners through their learning and teaching practice, achieve a high level of digital confidence, and reflect on their own disciplinary and contextual identity. At this stage, focus has shifted away from individual design of learning to one that is inspired by OEP and contributes back to the teaching community with sharing of practices. In an ideal case, teachers are part of an innovative, professional learning community, where teachers co-create and share learning designs (Laurillard, 2012).

Descriptors

The descriptors for the 3D2 Framework were developed so higher education lecturers and educators could recognise their current educational practice and derive inspiration for development in a series of aspects in each of the dimensions and stages. These descriptors were arrived through a conversational process, involving the project partners and a group of educational developers and teachers interested in OEP in Belgium and Ireland.

The SHOUT4HE Reference Framework is reproduced in full over the following two pages.

EDUCATIONAL PRACTICE DESCRIPTORS

When using technology in my teaching…			
	Discover and discuss	Design and deploy	Demonstrate and disseminate
Student engagement	I mostly focus on good delivery of content with some elements of active learning	I design and deploy educational practices that engage students in their learning process	I evaluate the effectiveness of my approach to student engagement and disseminate my practices.
Consideration of students' diversity	I consider my students' needs and discuss these with students and my colleagues.	I provide flexible access to the content and learning process based on my students' diverse needs.	I evaluate and disseminate my practices that respect individual student needs and diverse communities
Student empowerment	I alone set the content, activities and assessment, but I am open to sharing some of this responsibility.	My students partly co-manage and/or co-create the content and activities (individually or collaboratively)	My students are actors in the design and implementation of L&T activities
Sustainability	Teaching innovations mostly involve additional workload for me and/or my students, but I am open to exploring creative options to find more sustainable solutions	I design and implement scalable solutions that extend and sustain teaching innovations, so they become manageable for me and my students	I demonstrate, share and promote scalable solutions that extend and sustain teaching innovations with others, so they become manageable for other teachers
Open practice	I discuss educational practices with my colleagues, but mostly in closed and informal circles	I reflect and collaborate with my colleagues in designing educational activities and engage in continuous professional development	I adopt an evidence-based approach and share my practices (case studies, blog posts, presentations, publications, and mentoring others)

DIGITAL CONFIDENCE DESCRIPTORS

When using technology in my teaching...			
	Discover and discuss	Design and deploy	Demonstrate and disseminate
Find and use	I have a general awareness of the skills and literacies needed to find and use pertinent information and data effectively.	I engage with the relevant literacies needed to find and use pertinent information and data effectively.	I critically evaluate and disseminate my skills and literacies in finding and using pertinent information and data effectively.
Create and innovate	I am aware that technology can empower people to create new resources and express ideas.	I am confident and empowered in my use of technologies to create new resources and express ideas.	I critically evaluate and disseminate my use of technologies to create new resources and express ideas.
Identity and wellbeing	I am aware of the nature of the online self, data, privacy and the need to protect individuals and information in an ethical and respectful way.	I design and deploy practices that respect the nature of the online self, data, privacy and the need to protect individuals and information in an ethical and respectful way.	I critically evaluate and disseminate practices that respect the nature of the online self, data, privacy and the need to protect individuals and information in an ethical and respectful way.
Teach and learn	I am aware that the use of technologies and resources can be optimised to enhance teaching and learning.	I optimise the use of technologies and resources to enhance teaching and learning.	I critically evaluate and disseminate practices that demonstrate optimal use of technologies and resources to enhance teaching and learning.
Tools and technology	I am aware of the range of tools and technologies available and their practical applications to support learning and teaching.	I use a range of tools and technologies to support learning and teaching.	I critically evaluate and disseminate my use of a range of tools and technologies to support learning and teaching.
Communicate and collaborate	I am aware of the need for people to connect with each other and share ideas, regardless of distance or time.	I connect with other people and share ideas, regardless of distance or time.	I critically evaluate and disseminate the ways in which I connect with people to share idea, regardless of distance or time.
Open practice	I discuss issues of digital confidence and skills with my colleagues, but mostly in closed and informal circles	I reflect and collaborate with my colleagues to develop my digital confidence and skills, and my students'	I critically discuss and share my digital skills with colleagues and others (through teaching, CPD, scholarship, etc)

KEY CONSIDERATIONS

This guide to the SHOUT4HE framework has offered a detailed explanation of the development of our reference grid, as well as a presentation of its two main dimensions - pedagogical and technological competences. The three stages of HE teaching practice with technologies is then detailed, including examples and commentary from experienced colleagues in the SHOUT4HE network. Further guidelines and illustrations from the project can be consulted in a second eBook on XX and a third on YYY.

We end this guide with a set of conclusions and recommendations for your ongoing professional development as HE teachers:

- the effective use of technology can enhance a range of educational practices across academic disciplines;
- you can learn from practice in a variety of different disciplines which may lie well outside your own areas of disciplinary expertise;
- digital confidence is not fixed and can vary with different tools; similarly technologies can be used on their own and in different combinations
- empowering students is an important part of developing your own teaching practice, just as sharing your practice with colleagues is can be beneficial for both practitioner and observer;
- the critical evaluation of your own practice may bring benefits, but should focus not only on areas which can be developed, but always include the identification of positive dimensions of your current teaching which you should maintain;
- using our 3D framework to situate your teaching practice with technologies can help celebrate your own achievements also also support you in taking the next steps to develop your practice.

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APPENDICES

The SHOUT4HE framework has been informed by a review of the following frameworks, in order of relevance:

Conversational Framework

Her work is grounded in a theory-based framework of the learner learning and based on earlier analyses of how students learn, from which she developed her 'conversational framework' (Laurillard, 2002). The purpose of the framework is to assess if the environment can foster all aspects of the learning process (acquisition/instruction; inquiry; practice (with meaningful intrinsic feedback); production; discussion; and collaboration). It can also be used to assess and evaluate whether educational media, including OER, support the learning process.

Laurillard (2012) and her colleagues developed a design tool (The Learning Design Support Environment) which is a software interface to help teachers to:

- articulate their effective teaching ideas for others to adopt;
- to adopt 'pedagogical patterns' of good teaching and open resources; and
- to model pedagogical and logistical benefits/disadvantages.

The Learning Designer has a 'pedagogical patterns collector' tool for capturing and articulating good pedagogy and a 'learning design support tool' for teachers to find, adopt, adapt, analyse, experiment, trial in practice, redesign, and share designs. The importance of open educational resources (OER) in learning design is highlighted.

A simplified description is available here http://edutechwiki.unige.ch/en/Laurillard_conversational_framework and there is an explanatory video here https://youtu.be/6eOPWy75Aog. Her framework has been highly influential, yet complex. Our project draws much inspiration from Laurillard's work, yet our main objective was to arrive to a more intuitive and straightforward model that can be maximised for practice.

DIGCOMPEDU

The European Framework for the Digital Competence of Educators (DigCompEdu) is a scientifically sound framework describing what it means for educators to be digitally competent. It provides a general reference frame to support the development of educator-specific digital competences in Europe. DigCompEdu is directed towards educators at all levels of education, from early childhood to higher and adult education, including general and vocational education and training, special needs education, and non-formal learning contexts. DigCompEdu details 22 competences organised in six Areas. The focus is not on technical skills. Rather, the framework aims to detail how digital technologies can be used to enhance and innovate education and training.

In order to allow educators and practitioners to self-assess their own digital competence, the DigCompEdu CheckIn tool has been developed in order to encourage educators to reflect on their digital competence with a deeper level of engagement and meaning (European Commission, 2019b). The self-assessment tool covers the six key areas of digital competence, with twenty-two individual competencies being addressed within this. There are six different levels of proficiency that are accounted for in the survey (A1, A2, B1, B2, C1 and C2), allowing educators to learn more about their personal strengths and the areas where they can enhance the ways in which they use digital technologies for teaching and learning. Importantly, the tool provides detailed feedback with useful tips to help with key milestones on educators' personal roadmap to innovating teaching.

Careful consideration was given to this framework, especially given the European dimension of the SHOUT4HE project. The levels of proficiency were adopted in a simplified version in our three-level progressive framework. While DigCompEdu is a hugely comprehensive tool, SHOUT4HE aimed to produce an intuitive, simple and usable tool for practitioners. For this reason, the AllAboard Digital Skills in Education map was adopted, while flagging the potential of DigCompEdu and its CheckIn tool.

Access the DigCompEdu CheckIn tool here (in English, and also available in German and Portuguese for the HE sector): https://ec.europa.eu/eusurvey/runner/DigCompEdu-H-EN

3E Framework

The 3E (Enhance, Extend, Empower) Framework (Smyth et al, 2011) is intended to provide educators and those supporting them with guidance and examples across a range of learning, teaching and assessment activities that show how technology can be harnessed to increase active learning (Enhance), and to underpin increasingly more sophisticated learning activities that reflect how knowledge is created, shared and applied in professional and other contexts (Extend and Empower). Smith originally developed the 3E Framework as the basis for Edinburgh Napier's Benchmark for the Use of Technology in Modules.

The development of the 3E Framework, with examples of how it has and can be used, is explained further in the book chapter: Smyth, K., MacNeill, S. and Hartley, P. (2016) 'Technologies and academic development', in D. Baume and C. Popovic (eds) Advancing Practice in Academic Development. London: Routledge, pp. 121–41. See https://3eeducation.org/3e-framework/ and https://blog.yorksj.ac.uk/moodle/files/2015/04/3E_A1.jpg

Our interpretation of the progressive approach to teaching innovation in the 'Educational Practice' dimension of the SHOUT4HE is inspired by the 3E Framework. However, differently from it, we felt that it was important that this dimension considered educational practice on its own, without reference to the use of technological elements yet. Also, due consideration was given to the element of 'co-responsibility' needed for teaching innovations to succeed, as Smyth's model heavily relies on the concept of student's collaboration.

DIGILEARN

The Digilearn framework (Melia and Williams, 2019) at University of Central Lancashire offers a four-stage model for the development of technology-enhanced practice: (1) identify approach, (2) recognise impact, (3) share and support, and (4) enhance practice. In doing this, the framework recognises the spheres of influence of teaching practitioners as they engage with the framework from the individual, to their faculty, institution and whole sector. The initiative emphasises the creation of a community of practice around Microsoft Teams and the Microsoft Educator Community. The UCLan DigiLearn recognition programme is an institutional recognition framework, that enables and empowers our colleagues in sharing their

digital approaches, reflecting on practice and celebrating success. The framework is fundamentally defined around three levels of award (Practitioner, Advocate and Champion), with each stage acting as a pre-requisite for the next on the base of their engagement with the DigiLearn community in Microsoft Teams, their effective use of Microsoft Surface technology and their achievements on the Microsoft Educator Community. Along with these elements, each level holds its own set of unique additional criteria around sharing practice, initially at an internal faculty level (Practitioner) moving onto university level (Advocate) and finally, externally (Champion). Required evidence includes a combination of blog posts, written and video case studies, presentations and publications. Evidence of achievement is submitted, evaluated and recognised at Faculty, University and external level. See https://teltblog.uclan.ac.uk/2018/10/05/digilearn-building-community-sharing-practice-and-recognising-achievement/

This framework is useful as an example of a recognition framework, which is something that SHOUT4HE aimed to do from the outset. As in our framework, DigiLearn is defined around three levels of award which are clearly identifiable, best representing the level of achievements involved. Also, practice share is at the core of the framework and the many examples provided for practice sharing have been inspiring to us. However, this framework is primarily focused around the use of Microsoft tools, which is not our case. Also, SHOUT4HE 3D2 moves further by developing a framework applicable at inter-institutional and international level.

ADDIE - (Analysis, Design, Develop, Implement, Evaluate)

Analysis Phase: In the analysis phase, instructional problem is clarified, the instructional goals and objectives are established and the learning environment and learner's existing knowledge and skills are identified.

Design Phase: The design phase deals with learning objectives, assessment instruments, exercises, content, subject matter analysis, lesson planning and media selection. The design phase should be systematic and specific.

Development Phase: The development phase is where the developers create and assemble the content assets that were created in the design phase, test and review/revise based on feedback.

Implementation Phase: Includes facilitator training, and ensuring all necessary equipment is available and online access is functional.

Evaluation Phase: The evaluation phase consists of two parts: formative and summative.

Elements of the ADDIE model are intrinsically integrated in our 3D2 model, with special emphasis to the importance of the evaluation phase in the 'Demonstrate and Disseminate' stage of open practice development.

Carpe Diem - (Gilly Salmon - 5 Stage Mode)

Write a blueprint – envision the future.
Here you work together in your Carpe Diem pods to lay out the essential aspects of what you aim to achieve. Your output will be an agreed mission statement.

Make a storyboard – become a designer
Here you draw out the process of your learning, teaching and assessment in a visual way, working out your schedule, a sense of flow and alignment between the components. Practitioners can use the 5 stage model as a rough scaffold and your calendar for the delivery of the learning to participants to help you plan. It's their plan for transformation and impact.

Build your prototype online
Practitioners can try out their design in the online environment, and create some real practical testable e-tivities.

Check reality
Designs are tried out by colleagues as 'reality checkers', to give productive feedback.

Review and adjust
Preview the work so far, make adjustments, refine timings, flag up places to return to, indicate what additional work is needed and who should be responsible for it. Then an action plan is designed to see a way from the storyboard and prototypes to an operational design vision of the online or blended course.

Planning your next steps

Now the team is ready to build an action plan together.

The Carpe Diem framework resembles the SHOUT4HE 3D2 model in relation to the importance of the community of practice in the context of curriculum design, with an implicit importance place in openness in practice.

7C´s of learning - University of Leicester 7C's of learning design - The 7Cs tool-kit (Grainne Conole)

The 7Cs of learning design is a toolkit for teachers, academics, lecturers, trainers and learning technologists responsible for designing, developing and teaching technology-enhanced learning programmes. It aims to enable the design of deep, engaging and enjoyable learning experiences for learners. The toolkit contains a set of e-tivities (activities to be done online, or with the help of online technologies), which will help teachers and other members of course design teams to create deep, enjoyable and engaging courses for learners in all disciplines. The resources are organised around the 7Cs: conceptualise, capture, create, communicate, collaborate, consider and consolidate.

The 7Cs resources have all been tried and tested by a wide range of teachers and course designers in a range of disciplines. Many of the resources are taken from the University of Leicester's Carpe Diem workshop for learning designers, as well as from the Open University's OULDI project. For more information on the 7Cs model, see Grainne Conole's update on the 7Cs of learning design and G Conoles blog http://e4innovation.com/. Their design toolkit is available here https://www2.le.ac.uk/projects/oer/oers/beyond-distance-research-alliance/7Cs-toolkit/how-to-use-the-7cs-of-learning-design-toolkit-for-designing-technology-enhanced-learning.

Conole's work serves as inspiration not only as an instructional design framework, but also as an example of open pedagogical practice in action. She places the collaborative and open elements of the process of learning design at the centre, emphasising their impact on the reflection on action. These elements have also been incorporated through the SHOUT4HE 3D2 model.

SAMR Model - Substitute, Augment, Modify, Redefine (Ruben Puentedura)

The Substitution Augmentation Modification Redefinition Model (SAMR) shows a progression that adopters of educational technology often follow as they progress through teaching and learning with technology, which is determined by the level of student engagement.

In the Substitution level, computer technology is used to perform the same task as was done before the use of computers. This area tends to be teacher centric where the instructor is guiding all aspects of a lesson.

In Augmentation, computer Technology offers an effective tool to perform common tasks. This level starts to move along the teacher / student centric continuum. The impact of immediate feedback is that students may begin to become more engaged in learning.

In Modification, there is some transformation of the current practice.

In Redefinition, computer technology allows for new tasks that were previously inconceivable. At this level, common classroom tasks and computer technology exist not as ends but as supports for student centered learning. Collaboration becomes necessary and technology allows such communications to occur. Questions and discussion are increasingly student generated.

More information is available in these resources: http://www.hippasus.com/ and https://youtu.be/9b5yvgKQdqE

Puentedura's model has been criticised for lacking an empirical base for its model, yet its progressive nature and the importance of student centered learning is reflected in our model.

5C Framework

Nerantzi, C. and Beckingham, S. (2015) 'BYOD4L: Learning to use own smart devices for learning and teaching through the 5C framework', in Middleton, A. (ed.) (2015): Smart Learning: Teaching and Learning with Smartphones and Tablets in Post-compulsory Education, pp. 108–126, Sheffield: MELSIG publication, available

at www.researchgate.net/publication/277309988_BYOD4L_Learning_to_use_own_smart_devices_for_learning_and_teaching_through_the_5C_framework

The 5C Framework was originally developed as a thematic framework to guide the design of a series of short online courses for educators seeking to use online learning activities more effectively. In this original context the 5Cs – Connecting, Communicating, Curating, Collaborating and Creating – provided a focus for the different kinds of activities that learners can be engaged in online. The 5C Framework has since developed into a broader pedagogical framework that has been used in various contexts, and expanded with supporting evidence and guidance for those seeking to use it.

https://www.slideshare.net/suebeckingham/the-5c-framework-by-chrissi-nerantzi-and-sue-beckingham-46978275?from_m_app=ios

https://chrissinerantzi.wordpress.com/