



Digital_Bridges

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Simulated Practice for Skills Development in Social Services and Healthcare

Digital Bridges: Model Curriculum

Introduction

The Digital Bridges project will develop pedagogy and curriculum for trainers, educators and mentors around the use of the simulated practice-learning environment and develop and deliver a curriculum around simulated practice learning aligned with ECTS/ECVET for credit transfer. The Digital Bridges project aims to train 200 trainers/mentors to use the environment and carry out a large-scale European pilot with over 500 HE/VET students and professional social care workers using the new curriculum. This Curriculum will focus upon;

Needs: The importance of health & social services is increasing as European society grows older and unemployment and relocation across Europe increases. This growing demand for services in many Member States is creating unprecedented pressures on health & social care systems. Despite differences in political approaches and institutional frameworks, health and social services in all Member States face similar challenges in adjusting to demographic ageing, societal change, rising expectations and consumerism, changing employment and family patterns, evolving technological opportunities and funding issues. In addition to being an important source of job creation (in excess of 20 million employees), the health and social services sector has an important economic weight, as it generates around 5% of the total economic output in the EU-27.

A key part of the Social Care sector deals with vulnerable people. A recent report by the Social Protection Committee on the social dimension in the EU2020 strategy stated that greater emphasis must be spent on generating an effective and innovative way of developing the human capital of those responsible for improving the quality of life for vulnerable people throughout Europe. Education and training plays a pivotal role in developing those who work with vulnerable people and, more generally, the social services sector. In many parts of Europe, the sector has a strong emphasis on learning and assessing skills for job roles in real practice environments ("practice learning"). In some qualifications, practice learning can be almost 40% of the total learning time. There are also on-going demands for practice learning with new qualified professionals and professionals as part of "in-service"/CPD training. There are clear logistical challenges in arranging practice opportunities where trainees are able to learn the core skills of the job and receive high quality support, supervision and assessment of their practice from suitably qualified mentors/practice assessors. Furthermore, finding sufficient numbers of such placements has been a challenge for the last 30 years. However, there are also other challenges; e.g. risks associated with work-based learning and the safety and well-being of service users in giving trainees access to their lives. Thus, there are vocational skills mismatches and shortages around practice learning in this sector.

Meeting the needs: To address these challenges, the Digital Bridges project will develop an immersive 3D virtual environment, built on gaming architecture and driven by emotional AI, to provide a safe and readily accessible environment where Higher Education and VET students and professional social workers who deal with vulnerable people can learn by interacting with NPCs (Non-Player Characters) in a simulation of a real world service. Trainees will engage with simulations and be required to navigate their way through choices to arrive at the best resolution. Each simulation can be replayed and evaluated by the trainer/mentor and the trainee can use the same

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simulation as many times as required. We see this as offering a measurable, controlled environment where learners can gain a command of the basics of the job role they are training for with minimal resource requirements and zero risk to the public, thus providing a sound basis from which to progress to real work practice placement.

Priorities: Skills issues and policies are major features in the EU2020 policy vision. The 'Agenda for new skills and jobs' as well as 'Innovation Union' and 'A Digital Agenda for Europe' underline clearly the importance of skills and knowledge architecture that will be developed through this project demonstrated within simulated practice environments as situated learning. This project covers the 3 complementary fields of HE/VET education, the labour market and HE/VET policy making with technology partners to provide the simulation. The outcomes and deliverables of the project will propose innovative policy objectives and will address challenges related to professional skills, promoting competences such as digital literacy and multi professional skills. The outputs and products generated as part of this project will also contribute and connect with European and Global qualifications policies. Needs Analysis; the SSSC, the regulatory body for social services in Scotland, commissioned a needs analysis recently on the basis of this project and found that such an environment would be extremely beneficial in education & training but no such solution existed.

The Digital Bridges project is expected to result in the development of innovative practices in the training of social and healthcare students and professionals at organisational (public/private), regional, national and European levels. It will result in positive impacts for such people through (for example): improved competences linked to professional profiles (both for social and healthcare students and teachers of such), improved levels of skills for employability, a more active participation in society, increased opportunities for professional development through the existence of the simulated practice environment and, as a by-product, improved levels of digital competence.

Background.

Throughout this document the terminology used is Childhood Practitioner (CP). The setting developed for the game is a pre- fives, group care environment, and will be referred to as a nursery.

The Childhood Practitioner in this context is a worker, whose key function is to work in a nursery providing and developing play based learning opportunities for children and supporting children's social and emotional well-being and physical and cognitive development. (S) He is likely to be operating at a competence level of European Qualifications Framework (EQF) level 5 but may be working at a higher level.

A Childhood Practitioner, in the context of this curriculum, may or may not be the lead practitioner in the nursery/child care setting but would be expected to show resourcefulness, leadership and have the ability to observe and develop play based learning situations for children. (S)He would also be expected to work closely with parents and other key professional groups such as health workers, and teachers. This worker might be called a social pedagogue or have other titles in other countries. The project will be guided by the ESCO project European Skills/Competences, qualifications and occupations; the development of a Collaborative Taxonomy Creator (CTC)

The national differences mean the curriculum must have sufficient flexibility to be interpreted in a range of “student” learning contexts, while clearly outlining the key learning objectives that underpin the game’s development.

One defining principle that unites all those who are likely to use the skills rehearsal game is that they are individuals who may need to enhance or develop key skills in their early years’ setting. So the curriculum will outline the key skills that can be developed through the games that have been and will be developed.

The suggested pedagogical approaches will be outlined briefly in this curriculum design document but will be developed by other partners.

Philosophy

The philosophy used to inform the process of curriculum design is that, consistent with other professional training across Europe, Early Years work is an applied discipline (*Strategic Overview of Frontline Social Work Curriculum*; Frontline Academy for Social Work Education University of Bedfordshire; 2014).

The Higher Education Academy outline the view that *technology is not a solution in itself but can be used to facilitate a more inclusive curriculum*. Citing McInnes et al in *What It’s Worth* (JISC Techdis HEAT Scheme:2009) the HEA accepts their view that different modes of assessment can be used to judge student success without separate validation of each approach.

Meyers and Nulty (2008) describe the increasingly complex structures that support student learning; however, they reduce this to a description of scaffolding learning albeit by increasingly complex means. They support the value of structuring sequential learning that is aligned, to allow the learning environment to correspond to the thinking required by the learner *in situ*; this has a particular resonance to the desired outcomes of games based learning for childhood practitioners. In particular they suggest that *where understanding is limited, thinking approaches can be devised that allow greater sophistication of thinking* (P2). The developed games are intended to question orthodoxies in thinking and allow the players to consider different scenario responses.

A key factor in developing the curriculum will be the need to define it by level of competence necessary to successfully achieve the game outcomes. This is an important consideration in defining the game as one of a number of means by which learning needs to be “tested” for the groups of players. The nature of rehearsal is that it provides an opportunity to trial, but that there will be an eventual real world event. Therefore the rehearsal will be an opportunity to develop thinking and learning and to consolidate that learning in real world situations. It will however enable players to accumulate learning artefacts for future assessment.

Therefore the use of other member states’ qualifications frameworks where they exist will be a feature and for illustrative purposes. To illustrate how this would work the Scottish Credit and Qualifications Framework (SCQF) and its alignment to the EQF is used here. To show how others can align their frameworks.

The EQF is critical to the development of a curriculum that can offer assessment at an appropriate level of learning and with appropriate expectation of performance.

The level of expected learning across partners is expected to be consistent with levels 5 & 6 on the European Qualifications Framework (table adapted from www.sqa.org.uk) or levels 7,8 &9

EQF level	SCQF level
8	12
7	11
6	10
6	9
5	8
5	7
4	6
3	5
2	4
1	3
	2
	1

All learning within the Skills Rehearsal game must also adhere to the following core principles if it is to be successfully used for the recognition of prior learning; It must be:

- Learner focussed
 - Accessible
 - Flexible
 - Reliable, transparent and consistent and can be quality assured
- (Quality Assurance Agency for Higher Education Scotland; RPL HEI Network 2013)

The thematic nature of the games is designed to provide coherence across each and assessment of the games has to be seen as holistic. That means that while success can be viewed at individual games level, by necessity, competence will be developed where there is the cumulative success over the components of learning that reside in the game, namely: pre- test, game and post- test.

Individual games will be part of the formative assessment while completion of all games, and post- test will be viewed as summative.

Programme Design Principles:

Programme Title: Digital Bridges

The following section is an articulation model for a curriculum structure. The context and content will develop as the Digital Bridges project successfully evolves through its design and evaluation stages. At these points it will be possible to articulate more clearly in terms of credit measurement, credit transfer, the learning hours exposed as part of the content management of learning objectives and skills rehearsal. This would also clarify the potential linkage to national qualification frameworks and qualifications, if indeed they exist.

1. Description.

The Digital Bridges project is expected to result in the development of innovative practices in the training of social and healthcare students and professional workers at organisational (public/private), regional, national and pan European levels. The intention of this project is that it will result in positive impacts for such people through (for example): improved competences linked to professional profiles (both for social and healthcare students and teachers of such), improved levels of skills for employability, a more active participation in society, increased opportunities for professional development through the existence of the simulated practice environment and skills rehearsal and, as a by product, improved levels of digital competence.

2. Target Group/Beneficiaries:

The Digital Bridges project will develop pedagogy and curriculum for trainers, educators and mentors around the use of the simulated practice learning environment and develop and deliver a curriculum around simulated practice learning aligned with ECTS/ECVET for credit transfer.

The Digital Bridges project aims to train 200 trainers/mentors to use the environment and carry out a large-scale European pilot with over 500 HE/VET students and professional social care workers using the new curriculum.

3. Modalities

- a) **Modes of attendance;** There is an expectation of a minimum of 100 guided learning hours within the programme. This will be supplemented by other sources of learning to support the completion of the games, pre and post-tests. This equates to 10 ScotCAT credit points; 5 ECTS points.

Modes of Delivery; A range of methodologies of learning will be used including blended learning using Virtual gaming architecture in a 3D simulated practice learning environment 3D format

4. Aims of the programme

The over-arching aim of this vocational multi-disciplinary curriculum of learning is to produce skilled learners who are flexible, innovative and responsive, and whose analysis of the practice and situated learning role of individuals represented within the occupational responsibilities and other related occupational standards based qualifications of the other transnational qualifications based learning represented in the form of competence and situated/rehearsed learning in practice situations, thus creating contemporary skills for contemporary issues in early years

The course is designed to

- ◆ Offer learners a coherent, stimulating and effective programme of learning opportunities
- ◆ Provide learners with a soundly based learning opportunity in the area of early years and nursery settings.
- ◆ Enable learners to develop the inter-relationships utilising the game structure and diversity of learning objects available within the game construct
- ◆ Enable learners to plan and develop lifelong learning interests
- ◆ Enable learners to assume responsibility for managing an intellectually diverse programme of learning that can be applied within different contexts of professional practice.

It aims to

- ◆ Introduce learners to a range of some of the critical approaches within the nursery/child care environment
- ◆ Enable learners to acquire critical skills of description, the ability to be more critically analytical critical analysis and evaluation through critical reflection
- ◆ Enable learners to acquire skills in collaborative communication, autonomous learning, structured discussion and information technology

5. Learning and assessment.

Within the notional learning hours the curriculum is designed to encompass the following:

- The knowledge and understanding that the learner can demonstrate within each game scenario. These are
- The characteristics of skills performance necessary to undertake the learning at the indicative EQF level(see table below)
- The assessment criteria necessary to successfully "score" points in the game
- The practical and professional skills you will be demonstrating and that you will be expected to reflect on having completed the game scenarios successfully

The thematic nature of the games is designed to provide coherence across each and assessment of the games has to be seen as holistic. That means that while success can

be viewed at individual games level, by necessity, competence will be developed where there is the cumulative success of several games.

*Skills rehearsal is one component of strategies that can be used to enhance and develop skills however of necessity the games will be supplemented by other collaborative activities and other methods of assessment.

6. Performance expectations

The expected level of performance against which learners will be judged is:

Characteristics of skills performance necessary for assessment at EQF 5	Characteristics of skills performance necessary for assessment at EQF 6
<p>Demonstrate and/or work with:</p> <ul style="list-style-type: none"> • An overall appreciation of the body of knowledge that constitutes a subject/discipline/sector. • Knowledge that is embedded in the main theories, concepts and principles of the subject/discipline/sector. • An awareness of the dynamic nature of knowledge and understanding. <p>Apply knowledge, skills and understanding:</p> <ul style="list-style-type: none"> • In using a range of professional skills, techniques, practices and/or materials associated with the subject/discipline/sector, a few of which • are advanced and/or complex. • In carrying out routine lines of enquiry, development or investigation 	<p>Demonstrate and/or work with:</p> <ul style="list-style-type: none"> • An understanding of the scope and defining features of a subject/discipline/sector, and an integrated knowledge of its main areas and boundaries. • A critical understanding of a range of the principles, principal theories, concepts and terminology • Undertake critical analysis, evaluation and/or synthesis of ideas, concepts, information and issues in a subject/discipline/sector. • Identify and analyse routine professional problems and issues. • Draw on a range of sources in making judgements. <p>Apply knowledge, skills and understanding:</p> <ul style="list-style-type: none"> • In using a range of the principal professional skills, techniques, practices and/or materials associated with the subject/discipline/sector. • In using a few skills, techniques, practices and/or materials that are specialised and/or advanced. • In practising routine methods of enquiry and/or research. • To practise in a range of professional level contexts that include a degree of unpredictability.

7 **Expected learning outcomes:**

The following show the expected learning to be achieved from the current range of games available. However, this is an iterative process and as more games are developed the learning opportunities will increase.

The following outcomes are expected of a learner who has completed the series of games based scenarios and the supporting learning attached to the games.

Knowledge and Understanding

You will know how to:

- Demonstrate the ability to promote health, safety and security in the work setting
- Promote children's well-being and resilience
- Promote effective communication
- Promote the development of children and young people
- Plan and organise environments for children and families
- Develop your practice through reflection and learning
- Demonstrate an awareness of a quality curriculum for young children
- Have an understanding of how to make personalised provision for children taking account of their ages and needs
- Demonstrate an ability to use values that are consistent with developing child centred, rights based approaches to working with children

Application of practical and professional skills through reflective practice

You will:

- Demonstrate the ability to question concepts and understandings of policy relating to children and young people
- Demonstrate an ability to evaluate and further develop programmes to maximise the opportunities for effective engagement by children
- Demonstrate the ability to connect your actions to day to day practice
- Demonstrate the ability to reflect on and engage in the systematic observation of practice

Transferable skills

You will:

- Be able to demonstrate the ability to communicate your ideas verbally and using other methods of communication in collaboration with other players in your local context and across other European contexts

- Be able to demonstrate your ideas in writing
- Be able to assess your own effectiveness

Learning and assessment achieved by scenario- Nursery Games

NB these are typical scenarios however a key feature of Digital Bridges is that we will develop further scenarios as we develop the project. Additional learning and assessment will be identified as new games are developed

Setting up the nursery – mini game 1

- Promote health, safety and security in the work setting
- Promote children's well-being and resilience
- Demonstrate an ability to evaluate and further develop programmes to maximise the opportunities for effective engagement by children
- Demonstrate the ability to connect your actions in a game based scenario to day to day practice

Risk assessing the nursery – mini game 2

- Promote health, safety and security in the work setting
- Promote children's well-being and resilience
- Demonstrate an ability to evaluate and further develop programmes to maximise the opportunities for effective engagement by children
- Demonstrate the ability to connect your actions in a game based scenario to day to day practice

Scenario - Andrew and Christopher in the Home Corner

- Promote effective communication
- Demonstrate the ability to reflect on and engage in the systematic observation of practice
- Demonstrate the ability to connect your actions in a game based scenario to day to day practice

Scenario – Louise slips on water and bangs her elbow

- Promote health, safety and security in the work setting
- Demonstrate the ability to reflect on and engage in the systematic observation of practice
- Demonstrate the ability to connect your actions in a game based scenario to day to day practice

Scenario – Feedback to Louise’s mum after her accident

- Promote effective communication
- Demonstrate the ability to connect your actions in a game based scenario to day to day practice
- Demonstrate the ability to effectively question concepts and understandings of policy relating to children and young people

Scenario – Cai left out by Zoe and Mollie at nursery

- Promote children’s well-being and resilience
- Promote the development of children and young people
- Demonstrate the ability to connect your actions in a game based scenario to day to day practice

Scenario – Alexandra and her new baby sister

- Promote children’s well-being and resilience
- Demonstrate the ability to connect your actions in a game based scenario to day to day practice
- Demonstrate the ability to reflect on and engage in the systematic observation of practice

Scenario – Oscar and his eye patch

- Promote the development of children and young people
- Demonstrate the ability to reflect on and engage in the systematic observation of practice
- Demonstrate the ability to connect your actions in a game based scenario to day to day practice

Scenario – Harry role playing about a visit to the hospital

- Plan and organise environments for children and families
- Promote the development of children and young people
- Demonstrate the ability to reflect on and engage in the systematic observation of practice
- Demonstrate the ability to connect your actions in a game based scenario to day to day practice

Scenario – Child engaging in schematic play

- Promote the development of children and young people
- Plan and organise environments for children and families
- Demonstrate the ability to connect your actions in a game based scenario to day to day practice
- Demonstrate the ability to reflect on and engage in the systematic observation of practice

Activity – Post Game Learning Reflective Account

- Develop your practice through reflection and learning
- Demonstrate the ability to question concepts and understandings of policy relating to children and young people
- Demonstrate the ability to connect your actions in a game based scenario to day to day practice
- **Activity – Post Game Learning Questions**
- All questions in the post -game will be designed to ensure they directly link to the knowledge points in each activity cited above

Outcome principles

There is an expectation that in exiting the games and associated learning the successful learner will have the ability to synthesise three key elements of practice, shown diagrammatically below to support better professional action in a real world situation.



