



Increasing Flexibility in Lifelong Learning Through the use of Technology in Irish Higher Education

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A Conceptual Framework

Research Question

Develop a model for the design and delivery of flexible lifelong learning programs; using targeted educational technologies, effectively and pedagogically beneficially

1. Aims & Objectives of the Research

The aims of this research include exploring, examining and evaluating, in the context of developing a flexible implementation model, the following:

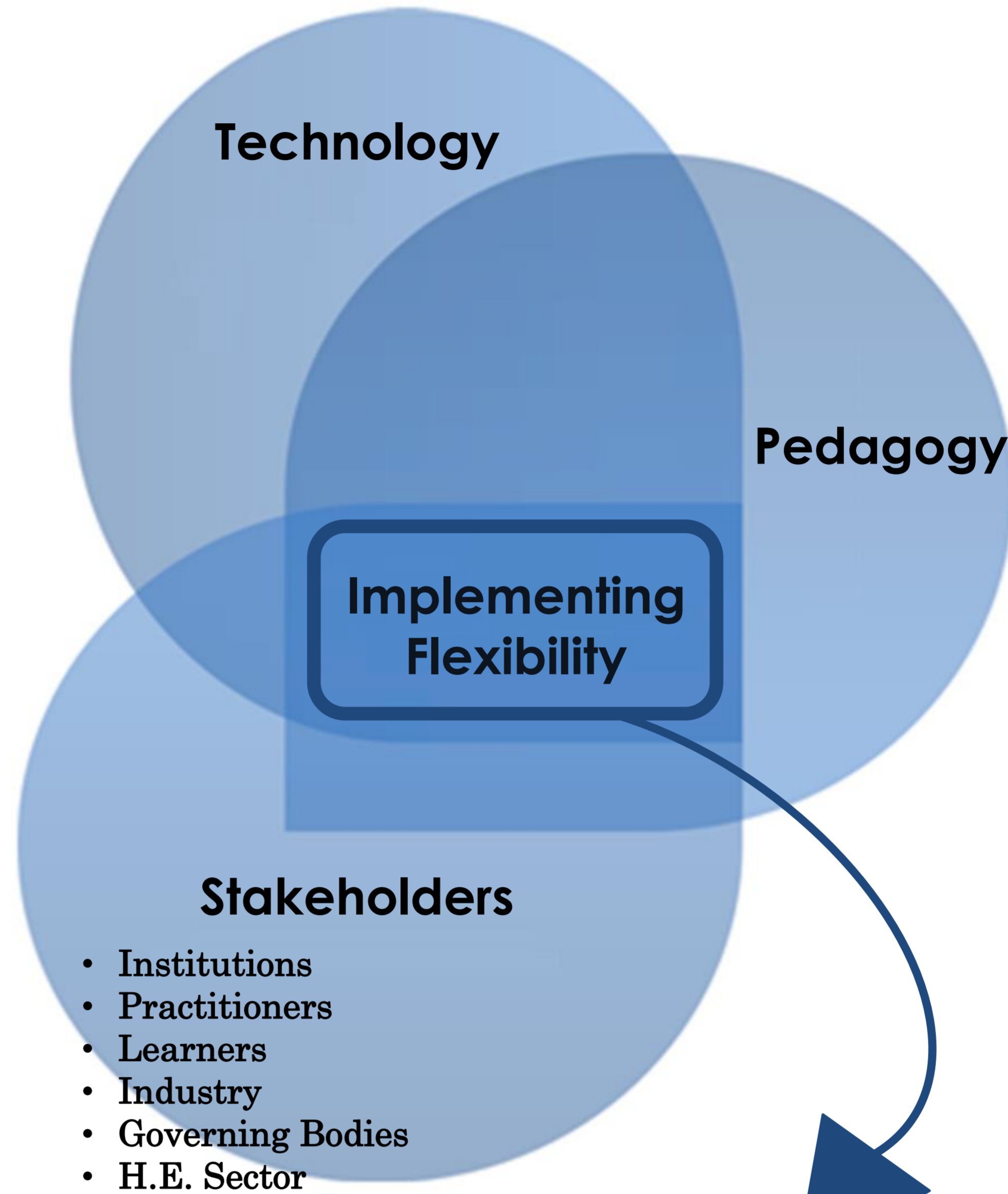
- The current "state of the art" in educational technologies
- Pedagogies underpinning flexible learning and educational technologies
- Stakeholder experiences using and integrating educational technologies
- Opportunities and barriers for the integration of educational technologies
- Personalised Learning and curriculum delivery using technology

3. Methodology

This research uses a concurrent triangulation mixed methods design. A literature review will be followed by three data collection phases; designed using the conceptual framework. Data collection will focus upon stakeholders educational technology experiences through:

Practitioner Interviews - Learner Surveys - Learning Analytics Data

A grounded theory data analysis approach will be used to triangulate empirical data and develop the flexible lifelong learning model.



2. Why does it matter?

A 50% increase in annual entrants to the Irish Higher Education sector is expected by 2025; with the bulk of this increase accounted for by adult, lifelong, learners, [26]. This expansion is happening against a backdrop of funding and staffing reductions.



A flexible system designed for lifelong learners is the solution, [26, 27]. Technology enhanced learning has the potential to facilitate flexibility. Ireland is among the least likely countries in the E.U. to implement technology enhanced learning successfully in adult education, [28]. This research aims to offer develop a solution.

Implementing Flexibility

Logistics

- Place and channels for contact with tutors or students
- Methods & technologies for support or contact
- Technology and place for participation in course elements
- Delivery channels for course information

Time

- Dates for starting and finishing courses (Duration)
- Times for submitting assignments and similar
- Studying tempo/pace
- Moments of assessment
- Level of interaction time

Support

- Support to combine study, work, family etc.
- Support/ preparation for flexible study
- Guidance through choice
- Types of help or support available

Approach

- Social organisation of learning
- Instructional organisation of learning
- Course languages
- Learning strategies
- Design for learner self-direction

Content

- Topics on a module or across a course
- Learning resources: mode, origin
- Theory/practice orientation of course
- Key learning materials in course

Obligations

- Conditions for participation
- Sequence of different course parts
- Progression requirements
- Assessment standards
- Completion requirements

6. The Conceptual Framework

4. What is a Conceptual Framework

Based upon elements from [1-5], a conceptual framework is taken as a tentative theoretical 'construct', explaining the assumptions, theories and relationships underpinning a study; and operating as a theoretical lens through which research is designed and implemented. They can assist with navigation of mixed method studies, [2,4,6]. Conceptual frameworks are used to operationalise research questions, set bounds upon a study, strengthen literature review, design research, analyse synthesis and reduce data, and to connect questions, concepts, contexts and findings, drawn from [1,3,5,7,8,9,10].

5. The development of the Conceptual Framework

As a result of a literature review, a number of perspectives were identified as relevant to this study. These perspectives, Technology, Pedagogy, Implementation and Stakeholders, provide the basis of the conceptual framework for this project. These perspectives are interdependent and overlap in many areas and it is the areas of overlap that interests this study. The implementation perspective is at the heart of the purpose of this research, so it becomes the lens through which the other perspectives are examined. A series of flexibility dimensions were also identified during the literature review, involving [11-25], and sorted into 6 categories. These dimensions form a 'theoretical frame' which is embedded within the larger conceptual framework, [5], to focus the broader context upon on particular aspects of interest.

7. References

(Full List Available)

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|---------------------------|-----------------------------|
| 1. Antonenko, 2015 | 15. Collis & Moonen, 2002 |
| 2. Evans, et al, 2011 | 16. Collis & Moonen, 2010 |
| 3. Maxwell, 2012 | 17. Flannery & McGarr, 2014 |
| 4. Miles & Huberman, 1994 | 18. Goodyear, 2008 |
| 5. Ravitch & Riggan, 2012 | 19. Gordon, 2014 |
| 6. Creswell, 2009 | 20. Hill, 2006 |
| 7. Green, 2014 | 21. Karadeniz, 2009 |
| 8. Kitchel & Ball, 2014 | 22. McLinden, 2013 |
| 9. Punch, 2009 | 23. Tucker & Morris, 2011 |
| 10. Robson, 2002 | 24. Van den Brande, 1993 |
| 11. Almpanis et al, 2010 | 25. Willems, 2011 |
| 12. Barnett, 2014 | 26. DES, 2011 |
| 13. Bergamin, et al 2012 | 27. E.C, 2014 |
| 14. Collis & Moonen, 2001 | 28. E.C, 2015 |

Reference List

1. **Antonenko, P.**, The instrumental value of conceptual frameworks in educational technology research. *Educational Technology Research & Development*, 2015. 63(1): p. 53-71.
2. **Evans, B.C., D.W. Coon, and E. Ume**, Use of theoretical frameworks as a pragmatic guide for mixed methods studies: A methodological necessity? *Journal of mixed methods research*, 2011. P. 1-13.
3. **Maxwell, J.A.**, *Qualitative research design: An interactive approach*. 2012: Sage.
4. **Miles, M.B. and A.M. Huberman**, *Qualitative data analysis : an expanded sourcebook*. 1994, Thousand Oaks: Sage
5. **Ravitch, S.M. and M. Riggan**, *Reason & Rigor : how conceptual frameworks guide research*. 2012, Thousand Oaks: Sage.
6. **Creswell, J.W.**, *Research Design : qualitative, quantitative, and mixed methods approaches*. 3rd ed. 2009, Los Angeles: Sage.
7. **Green, H.E.**, Use of theoretical and conceptual frameworks in qualitative research. *Nurse Researcher*, 2014. 21(6): p. 34-38 5p.
8. **Kitchel, T. and A.L. Ball**, Quantitative theoretical and conceptual framework use in agricultural education research. *Jour, of Agricultural Education*, 2014. 55(1): p. 186-199.
9. **Punch, K.**, *Introduction to Research Methods in Education*. 1st ed. 2009, London: Sage.
10. **Robson, C.**, *Real world research : a resource for social scientists and practitioner-researchers*. 2002, Oxford, UK; Malden, Mass.: Blackwell Publishers.
11. **Almpanis, T., et al.** Proposing a Framework for Blended and Flexible Course Design. in *IADIS International Conference on Cognition and Exploratory Learning in Digital Age*. 2010.
12. **Barnett, R.**, Conditions of flexibility: Securing a more responsive higher education system, in *Higher Education Academy*. 2014, Higher Education Academy (UK): York.
13. **Bergamin, P.B., et al.**, The relationship between flexible and self-regulated learning in open and distance universities. 2012, 2012. 13(2): p. 23.
14. **Collis, B. and J. Moonen**, *Flexible learning in a digital world : experiences and expectations*. 2001, London: Kogan Page.
15. **Collis, B. and J. Moonen**, Flexible Learning in a Digital World. *Open Learning*, 2002. 17(3): p. 217-230.
16. **Collis, B. and J. Moonen**, Flexibility in higher Education: Revisiting expectations. *Revista Comunicar*, 2010. 19(37): p. 15-25.
17. **Flannery, M. and O. McGarr**, Flexibility in higher education: an Irish perspective. *Irish Educational Studies*, 2014. 33(4): p. 419-434.
18. **Goodyear, P.**, Flexible learning and the architecture of learning places, in *Handbook of research on educational communications and technology*, M. Spector, et al., Editors. 2008, Routledge: New York. p. 251-257.
19. **Gordon, N.**, *Flexible Pedagogies: technology-enhanced learning*. Higher Education Academy, NIACE, 2014.
20. **Hill, J.R.**, Flexible Learning Environments: Leveraging the Affordances of Flexible Delivery and Flexible Learning. *Innovative Higher Education*, 2006. 31(3): p. 187-197.
21. **Karadeniz, S.**, Flexible design for the future of distance learning. *Procedia - Social and Behavioral Sciences*, 2009. 1(1): p. 358-363.
22. **McLinden, M.**, Flexible pedagogies: Part-time learners and learning in higher education. From the report series 'Flexible pedagogies: Preparing for the future'. The Higher Education Academy, September 2013.
23. **Tucker, R. and G. Morris**, Anytime, anywhere, anyplace: Articulating the meaning of flexible delivery in built environment education. *British Journal of Educational Technology*, 2011. 42(6): p. 904-915.
24. **Van den Brande, L.**, *Flexible and distance learning*. 1993: John Wiley & Sons, Inc.
25. **Willems, J.**, Students' perceptions flexing pedagogy and practice, in *Flexible Pedagogy, Flexible Practice: Notes from the Trenches of Distance Education*, E. Burge, C. Campbell Gibson, and T. Gibson, Editors. 2011, AU Press: Edmonton.
26. **DES, Department of Education and Skills**: National strategy for higher education to 2030 R.o.t.S. Group, Editor. 2011, Stationary Office: Dublin
27. **European Commission**, *New Modes of Learning and Teaching in Higher Education*. 2014, Report High Level Group on the Modernisation of Higher Education.
28. **European Commission**, *Adult Learners in Digital Learning Environments*. 2015, (EAC-2013-0563),.