Validation of a Conceptual Quality Framework for Online and Blended Learning with Success Factors and Indicators in Adult Education:
a qualitative study

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Outline

- Introduction
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- Results
- Discussion
- Limitations and further research
- References

Introduction

Online and blended learning (OBL) in education:

Benefits

- Enhance **accessibility** and **flexibility** (Graham & Robison, 2007; Shea, 2007)
- Reduce the costs of instruction (Shea, 2007)
- Transform **instruction and teaching** (Garrison & Kanuka, 2004; Graham & Robison, 2007).

! Tailor the educational provision to the needs of (adult) students !

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Introduction

Online and blended learning (OBL) in education:

Challenges

- Quality assurance and improvement (QA&I)
  - Involvement of many in a dialogue, including students (Deepwell, 2007; Jara & Mellar, 2009).
  - Not easy to consult students in education, and even more in OBL (Bloxham, 2010; Jara & Mellar, 2009).

- Quality frameworks for OBL-education
  - A lot in higher education (HE) (Ossiannilsson, Williams, Camilleri & Brown, 2015).
  - Similar '*constituents*' (Frydenberg, 2002; Jung, 2011; Phipps & Merisotis, 2000).
  - **Providers perspective** (Frydenberg, 2002; Jung, 2011)

Literature

Why are existing quality frameworks (for OBL) limiting?

- **Structure**
  - Cover management processes, but miss the focus on the student learning experience (Srikanthan & Dalrymple, 2002; Dumont and Sangra 2006).

- **Use**
  - **Bureaucracy** (Srikanthan & Dalrymple, 2002)
  - **Dialogue**: educational quality is the result of a negotiation process between all participating parties in education (Ehlers, 2009a, 2009b) the student perspective is important
  - Student perspective of quality does not necessarily coincide with other stakeholders' views (Ehlers, 2004; Ehlers & Pawlowski, 2006; Jung 2011).
  - The perception of quality can differ between students (Ehlers, 2004).
  - **Mainstream,** contextualize traditional quality frames (Swedish National Agency for Higher Education - NAHE, 2008; Ossiannilsson, Williams, Camilleri, & Brown, 2015).

- **Validation**
  - Validation processes of quality frameworks take place against **contexts** which have an impact on the result (Inglis, 2008).
  - HE central focus of research in quality management systems (Contreras, Torres, Palominos, & Lippi, 2015)

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Literature

Knowledge of what defines quality of OBL from the student perspective is therefore beneficial

but

was lacking until recently

- **Relevance?**
  - Focus on pedagogy (Srikanthan & Dalrymple, 2002)
  - Support quality dialogue (Ehlers, 2009a, 2009b)
  - Mainstream/integrate/contextualize traditional quality frames (Swedish National Agency for Higher Education - NAHE, 2008; Ossiannilsson, Williams, Camilleri, & Brown, 2015).

Literature
Constituents of quality (OBL)

(Phipps & Merisotis, 2000; Frydenberg, 2002; Jung, 2011; Ossiannilsson & Landgren, 2012)

(Ossiannilsson & Landgren, 2012)

Providers perspective

Student perspective

- **3 quality areas:**
    1. Management
    2. Services
    3. Products

- **6 quality dimensions:**
    – Strategic planning and development

    – Teacher and Staff support
    – Student support

    – Curriculum
    – Course design
    – Course delivery

Success factors
1. Flexibility
2. Accessibility
3. Transparency
4. Interactivity

5. Personalisation,
6. Productivity,
7. Participation (McLoughlin & Lee, 2008).

Success

'to be successful in e-learning from an academic and educational point of view but also with regard to their personal and social life'

(Ossiannilsson & Landgren, 2012)

Self-assessment tool e-xcellence (Kear et al., 2016; Ubachs et al., 2007; Williams, Kear & Rosewell, 2012), (EADTU), but is presented from the traditional institutional perspective.

Success

'to be successful in e-learning from an academic and educational point of view but also with regard to their personal and social life'

(Ossiannilsson & Landgren, 2012)

… of **adult students**

Self-assessment tool e-xcellence (Kear et al., 2016; Ubachs et al., 2007; Williams, Kear & Rosewell, 2012), (EADTU), but is presented from the traditional institutional perspective.

Literature
Empirical studies on quality dimensions from the (adult) student perspective in Higher Education

Ossiannilsson and Landgren (2012)	Ehlers (2004)	Jung (2011)
Reported success factors	*Reported quality fields or quality dimensions*	*Reported quality dimensions*
-	-	Institutional credibility
A. Flexibility	-	-
B. Transparency	Information transparency (QF 5)	Information and publicity
C. Accessibility	-	-
D. Personalisation	Student vs. Content centeredness (D3)	-
E. Interactivity	Collaboration (QF 2) Interaction centeredness (D1)	Interaction
F. Productivity	-	-
G. Participation	-	-
Quality areas/Quality dimensions	*Reported quality fields*	
management		
• Strategic planning and development	-	Institutional QA mechanism
Services		
• Student support	Tutor support (QF 1)	Student support
• Support to teachers and staff		Staff support
Products	-	-
• Programme design	-	-
• Course design	Course structure (QF 6) Didactics (QF 7)	-
-	-	Learning tasks
• Delivery	Technology (QF 3)	-
-	Costs – expectations – value (QF 4) Moderation of learning processes (D2)	-

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Literature
Studies on existing quality models, their quality aspects and quality indicators that define quality of OBL for adult students in the context of HE.

nr.	Author	Title	Success factors							
			C*	F	T	A	I	Pe	Pr	Pa
1.	Korres, Karalis, Leftheriotou, & Barriocanal (2009)	Integrating Adults' Characteristics and the Requirements for Their Effective Learning in an e-Learning Environment	X				X	X	X	
2.	Dzakiria (2012)	Illuminating the importance of learning interaction to open distance learning (ODL) success: a qualitative perspectives of adult learners in Perlis, Malaysia					X			
3.	Zhang & Cheng (2012)	Quality assurance in e-learning PDPP evaluation model and its application	X							
4.	Volungeviciene, Tereseviciene, & Tait, (2014)	Framework of quality assurance of TEL integration into an educational organization	X			X			X	
5.	Stodel, Thompson, & MacDonald (2006)	Learners' perspectives on what is missing from online learning: interpretations through the community of inquiry framework	X				X	X	X	
6.	MacDonald & Thompson (2005)	Structure, content, delivery, service and outcomes: Quality e-learning in higher education					X	X	X	
7.	Harroff, P.A. (2002)	Dimensions of quality for web-based adult education	X		X	X				

Jung (2011)*

Validation in Adult Education?

Research questions:

1. Which **success factors** are essential for the success of OBL in adult education as perceived by adult education stakeholders?

2. Which **quality areas and dimensions** are essential for the success of OBL in adult education as perceived by adult education stakeholders?

3. Which **quality framework** can be validated for OBL in AE **and** which **indicators** for quality can be identified?

Methods

Inglis (2008)

- To rely on literature for validation may be insufficient especially in new contexts

- Stakeholders can be assembled to elicit their expert knowledge, which is tacit as well as explicit

- **Thematic analysis**
  - Deductive matrix analysis with the principles of grounded theory (Corbin & Strauss, 1990).

  - Grounded theory is a method which is based on inductive analysis from the data focused on creating conceptual frameworks (Charmaz, 2006).

Exploratory (Focus group) interviews (N=12)

Semi structured
- Current approaches for QA&I of OBL 5 centers for Adult Education in Flanders (Belgium)
- PDCA-cycle (Deming, 1955)

Professionals experienced in OBL:
- Institutional level (n=17)
- Programme level (n=20)

Experience of respondents

Table 4: Experience of respondents in years.

Experience:	<5y	6y - 10y	11y – 20y	21y – 30y	>30y
Institutional level					
In Education	1	1	8	4	3
In Current position	4	5	7	-	-
With OBL	8	8	1	-	-
Programme level					
In Education	3	2	8	3	4
In Current position	3	1	14	1	1
With OBL	13	5	2	-	-

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Analysis

1. **First phase:**
   - Free coding (open coding) parts in which respondents expressed anything that from their perspective was important for either OBL or QA&I.
   - Explicitly mentioned success factors coded according to pre-defined codes (Ossiannilsson & Landgren, 2012), but not limited to these.

2. **Second phase:**
   - Open codes were thematically clustered (quality areas and dimensions) (Ossiannilsson & Landgren, 2012)
   - Axial and selective coding to establish relationships between them and quality areas and dimensions.
        Thematically clustered codes were re-coded in terms of the success factors.

3. **Final phase**
   - remaining codes were re-examined and coded in terms of success factors.

Results:
RQ 1 – Which success factors are essential for the success of OBL in adult education as perceived by adult education stakeholders?

Table 5: coding by success factors by coding round.

Success factors	1st coding round		2nd coding round		Final coding round	
	Distribution over cases, interviews	Frequency	Distribution over cases, interviews	Frequency	Distribution over cases, interviews	Frequency
Flexibility	5,10	74	5,11	110	5,11	121
Accessibility	1,1	1	3,7	27	3,7	29
Transparency	1,1	1	5,11	90	5,11	96
Interactivity	3,4	14	5,8	33	5,8	33
Participation	3,3	5	4,4	9	4,4	13
Productivity	0,0	0	4,4	6	4,4	6
Personalisation	5,8	22	5,9	29	5,9	29
Integration	-	-	4,6	37	4,6	37
Credibility	-	-	-	-	-	-

* Interactivity with content and teachers

Results:
RQ 2 – Which quality areas and dimensions are essential for the success of OBL in adult education as perceived by adult education stakeholders?
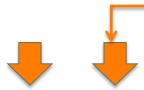
Table 6: thematical clustering of elementary codes from interviews.

	External QA	Management*	Teacher and staff support**	Student support**	Design ***	Delivery ***	Evolution	Internal QA
Distribution over articles	4,4	5,12	5,11	5,12	5,11	4,7	4,7	5,12
Frequency	18	103	132	198	163	44	9	68

Ossiannilsson and Landgren (2012): Management* (strategic planning and development), products** (design – curriculum/course and assessment; delivery) and services *** (teacher and staff support, student support).

Design
- Programme
- Course
- Lear

Results

External QA

– Respondents complain about external QA and verification: *'… now we are funded based on attendance. For distance education this is based on participation which is operationalised as how long someone is logged into the system, what they (students) have actually done is not taken into consideration, this tells nothing'.*

Internal QA

– Part of management

Evolution

– respondents state that the way OBL is designed and the amount of OBL in the provision evolved over time:

'Indeed, I think that our distance education and the way we use it to work has evolved tremendously', 'And that really is also a choice that we made as an institution. And we really want to go for it. In the past it was blended learning. But now is what we call open CVO, in which almost the entire course is given in distance education'.

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Results:
RQ 2 – Which quality areas and dimensions are essential for the success of OBL in adult education as perceived by adult education stakeholders?

Table 7: connections between success factors and emerging themes.

Success factors	Management (5,12 – 103)	Teacher and staff support (5,11 – 132)	Student support (5,12 – 198)	Design (5,11 – 163)	Delivery (4,7 – 44)
Distribution over cases, interviews – frequency					
Flexibility (5,11 – 110)	-	-	-	5,10 – 36	-
Accessibility (3,7 – 27)	-	-	2,3 – 6	-	3,6 – 20
Transparency (5,11 – 90)	3,3 – 7	-	5,10 – 49	5,6 – 14	2,3 – 19
Interactivity (5,8 – 33)	-	-	-	5,7 – 19	-
Participation (4,4 – 9)	-	-	1,1 – 2	1,1 – 5	-
Productivity (4,4 – 6)	-	-	-	4,4 – 6	-
Personalization (5,9 – 29)	-	-	-	2,3 – 7	-
Credibility	-	-	-	-	-
Integration (4,6 – 37)	-	-	-	4,6 – 37	-

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Results

1. **Flexibility:** related to programme and learning activity
2. **Accessibility:** related to delivery and student support
3. **Transparency:** related to all quality dimensions
4. **Personalisation:** related to all quality dimensions

5. **Interactivity** and
6. **Participation** (codes were scarce)**.**
   – What is mentioned in Participation is similar but not equal to codes related to 'interactivity'.
   – It seems that participation can be seen as a central success factor.
   – It can be argued that decisions taken at the level of the other success factors have consequences on the way students participate in the educational provision:
     > '... the way of looking 100%, because ultimately you look at some: is there participation, is there material available and is it being worked with, is there feedback to the students?'

7. **Integration -** researchers agreed that this is not specific for OBL.
   – it appears related to different things i.e. Design (programme, course) and assessment.
   – Integration also refers to how face-to-face and online education is structurally aligned to one another and to 'assessment' i.e. validity.
   – covered by other success factors, respectively 'productivity' and 'flexibility'

8. **Credibility**
   – related to management and teacher **and** staff support

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Results:
RQ3 – Which quality framework can be validated for OBL in AE and which indicators for quality can be identified?

Providers perspective

- **3 quality areas:**
    1. Management
    2. Services
    3. Products

- **6 quality dimensions:**
    – Management

    – Teacher and Staff support
    – Student support

    – Curriculum design
    – Course design
    – Learning activity design (Jung, 2011)
    – Course delivery

Student perspective

Success factors
1. Credibility (Jung,2011)

2. Flexibility
3. Accessibility
4. Transparency
5. Interactivity
6. Personalisation
7. Productivity

8. (Active) student participation
(Ossiannilsson & Landgren, 2012)

Results:
RQ3 – Which quality framework can be validated for OBL in AE and which indicators for quality can be identified?

Tentative definitions   and indicators

Table 8: list of seven success factors with tentative definitions, citations from interviews, connections to quality areas/dimensions and number of indicators (Appendix 1). (Kear et al., 2016; McLoughlin & Lee, 2008; Ubachs et al., 2007; Williams et al., 2012).

Success Factors and Tentative Definition	Connections to quality areas/dimensions
Credibility – Credibility implies the translates of a clean view on OBL into measurable targets. It implies efficient use of potential means and personnel. Finally, it entails the integration of these targets into the quality assurance system, monitoring the development of OBL and adjusting it if necessary.	• Management (N=13) • Support for teachers and staff (N=10)
Flexibility – The degree in which students have the possibility to fine tune educational needs to professional or private needs and obligations. *"Flexibility related to time. When do you study, when do you learn? But also flexibility in terms of pace (going slower or faster through the programme). Intensity, time, intensity, learning style…". – A_B_1*	• Programme (N=4) • Learning activity (N=1)
Transparency – All initiatives taken to inform potential students about the programme from enrolment until graduation. *"… also we try to advise students, we have extensive information sessions at the start of the school year. …" – E_L_3*	• Management (N=1), • Programme (N=4) • Course (N=4) • Student support (N=7)
Accessibilty - Is determined by the online accessibilty of students and by what is available for them on the campus. *"that student has no internet connection … our open learning center is also accessible to students. … We … train students in ICT skills. … the basics like an on/off button of a computer." – C_B_1*	• Delivery (N=5) • Student support (N=2)

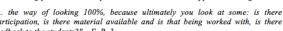|	
Interactivity – Refers to the online interaction that is supportive for the learning process between students and the material and students and teachers. Interactivity is related to design and student support. *"…I think that if you design the learning path differently it is possible to do it online. But the learning path is like, well like mine that I now have developed for instance that you don't need to do that. Where you just, you're giving a piece of info and ok now let's apply that. And they (students) must do that. And they click on a button 'Submit' and they see: 'What you've done now is correct or is incorrect ' – C_L_?*	• Learning activity (N=6) • Student support (N=4)
Personalisation – The extent to which students have, and (can) make use of the possibility to personalise (customise/maximise) their learning experience to personal needs by their own choice. Personalisation ranges from personal learning (a lot of freedom of choice for students) to personal instruction (absence of choice). *"One part (online) is rehearsal of exercises and implementation of what we worked on in class. And the second part it entails new subjects. So if for example, they have understood well what we dealt with during class, for all I care they can skip the first part that or spend less time on it. They do what they want with it. They are free to decide for themselves. – D_L2_2*	• Learning activity (N=8) • Student support (N=2)
Productivity – The extent to which learning activities (content and assessment) are designed to challenge/invite students in the process of knowledge creation rather than mere reproduction. Productivity is linked to design. *"Yes, yes because we then surely knew: 'look, let those people (students) tell what they have learned and then you can dig much deeper, and really see if those competencies are acquired." E_B_1*	• Learning activity (N=3)
Participation – Participation is understood as the students' active involvement in their learning processes. Participation is linked to Student support and Design. *"… the way of looking 100%, because ultimately you look at some: is there participation, is there material available and is that being worked with, is there feedback to the students?" – E_B_3*	–

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Discussion

- All success factors for quality in OBL are present in AE.

- The success factors and indicators are connected to quality dimensions present in existing quality frames.

Discussion

- **Flexibility** and **accessibility** important to increase access and facilitate participation. (Harroff, 2002; Jung, 2011; Korres et al., 2009; MacDonald & Thompson, 2005; Volungeviciene et al., 2014).

- **Transparency** is important to inform students about the posssibilities and the modalities of OBL. (Harroff, 2002; Jung, 2011)

≅ Enabling blend (Bonk & Graham, 2012; Graham, 2005; Graham & Robison, 2007)

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Discussion

- **Participation**, **personalisation** and **productivity** less prominent in the interviews (pedagogy).
    - 'personalisation' is emphasized in literature (Dzakiria, 2012; Harroff, 2002; Jung, 2011; MacDonald & Thompson, 2005; Stodel et al., 2006; Zhang & Cheng, 2012)
    - 'productivity' to a lesser extent (Jung, 2011; Stodel et al., 2006; Volungeviciene et al., 2014).

  ≅ Transforming blend (Bonk & Graham, 2012; Graham, 2005; Graham & Robison, 2007)

Discussion

- '**interactivity**' of students with **content and teachers.**

  - Literature content, faculty **and peers** (Dzakiria, 2012; Harroff, 2002; Jung, 2011; MacDonald & Thompson, 2005; Stodel et al., 2006; Volungeviciene et al., 2014; Zhang & Cheng, 2012).

  - Although 'participation' and 'interactivity' are seen as distinct success factors (McLoughlin & Lee, 2008; Ossiannilsson & Landgren, 2012), analysis of interviews indicates that they are similar.

Discussion

- '**evolution**'
  - Initial focus on 'enabling' success factors.
  - Suggests that pedagogical success factors: personalization, interactivity and productivity became more important
  - Over time design of OBL evolves towards inviting students to take ownership i.e. **actively participate** in the learning process (Ossiannilsson and Landgrens, 2012).

Discussion

- **Credibility**
  - focuses on management principles of integration of the vision of OBL into the organization and also about providing clear roles for educators, staff support and internal QA processes.
  - 'management', 'internal QA' and **'external QA'** corresponds with what Jung (2011) reports as 'credibility'.
  - What is mentioned is in line with what is reported in literature (Harroff, 2002; Korres et al., 2009; MacDonald & Thompson, 2005; Stodel et al., 2006; Volungeviciene et al., 2014; Zhang & Cheng, 2012).

- **External QA**
  - Alignment of macro with meso level needed for Institutional alignment (Moskal, Dziuban, & Hartman, 2013)

Limitations
Prospects for future research

- **Success factors are mentioned unevenly over the interviews**
  - Semi-structured interview guideline was used to give respondents the opportunity to speak freely
  - Data saturation
  - evolution is occurring in the field

- **Not all stakeholders were consulted**
  - Students
  - Macro level

- **Further research**
  - Consult all stakeholders in Delphi study (Blieck, Ooghe, Zhu, De Pryck, Struyven, Pynoo, Van Laer, **submitted**)
  - Investigate the importance of the success factors for active participation (**ongoing**)
  - Implementation in the field (**ongoing**)

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Relevance for practice

How to use the framework for CQI (Sonpal-Valias, 2009) of OBL?

Plan:
- **SF** – Underpin adoption
- **QD** – mainstream/integrate/ contextualize quality in (traditional) Institutional quality framework

Do:
- Develop and monitor implementation

Check:
- **SF** – Current state analysis after implementation

Reflect:
- Success factors (**SF**) vs. quality dimensions (**QD**)

Act:
- Implement improvement measures

Feedback/Questions

Now or later…

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