

# Towards a theoretical model to design and evaluate blended learning environments in adult education

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## BACKGROUND

### Analysis

#### Initial orientation (from practice)

- Challenging target group: adult learners with a background in vocational/technical secondary education enrolled in the specific teacher training
- Why challenging?
  - Drop-out rates
  - Influx in blended learning programmes
  - Implementing blended learning
- The need to implement efficient and effective blended learning environments to enhance student learning and satisfaction for all learners

- Adult learners have specific needs and are confronted with specific challenges such as combining a job and participating in an educational programme (Brown, 2002)
- The need to use iterative design research to develop (explore, test and adjust) blended learning models and theories that have a wide applicability (Graham, Henrie, & Gibbons, 2014)

#### Field-based investigation

- Data collection to portray the setting, its actors, mechanisms and other factors
- See 'planned studies'

### Exploration

- Site visits, professional meetings, networking

#### Literature review

- "... blended learning offers potential for improving educational practice ... as long as the instructional design attends to the learning characteristics of student cohorts" (Dziuban, Hartman, & Mehaffy, 2014, p. 326).

### Problem statement

If the blended delivery model becomes a mainstream for higher education, then more clearly defined models and examples of effective course designs are needed (McGee & Reis, 2012). Graham et al. (2014) propose the use of iterative design research to develop (explore, test and adjust) models and theories that have a wide applicability.

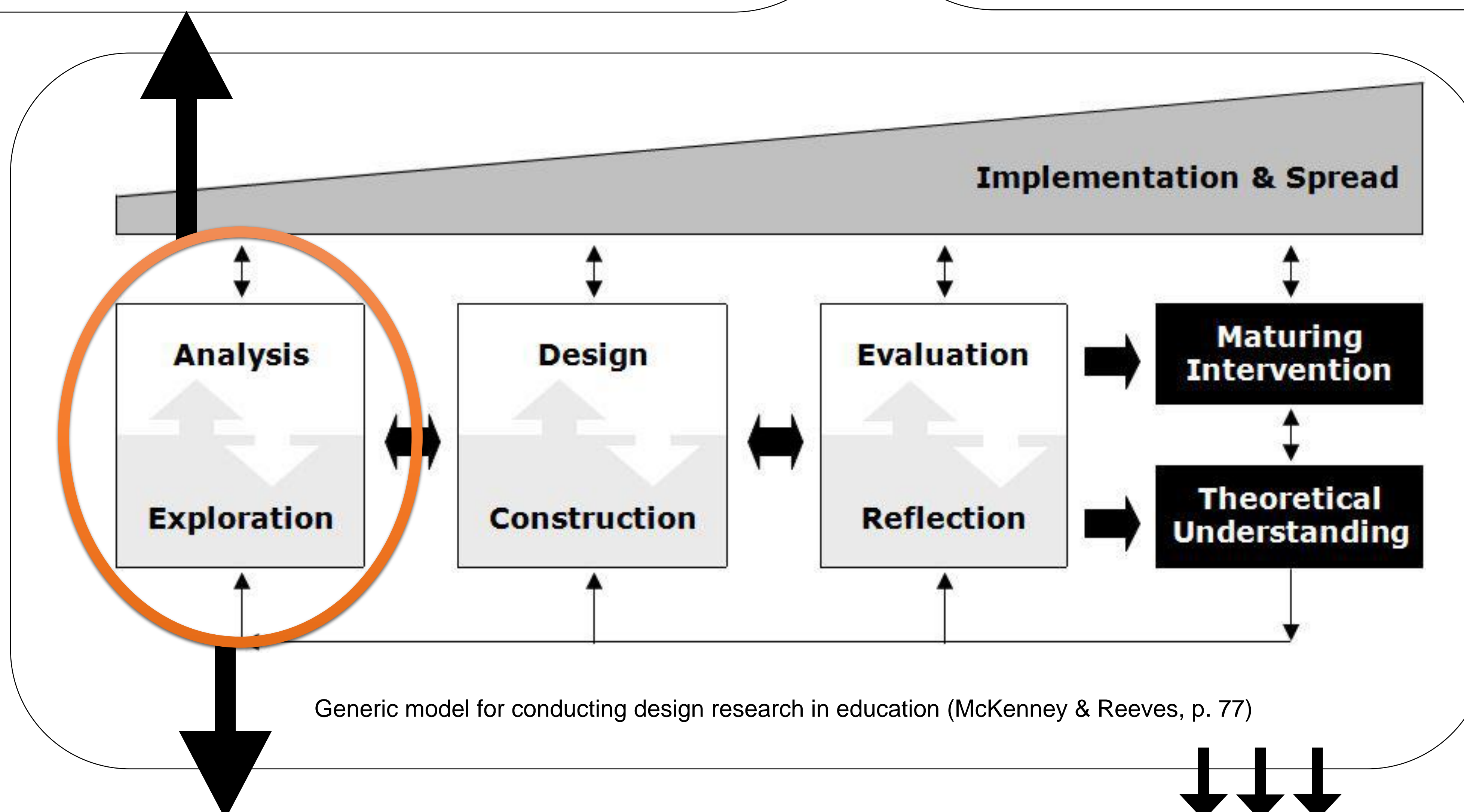
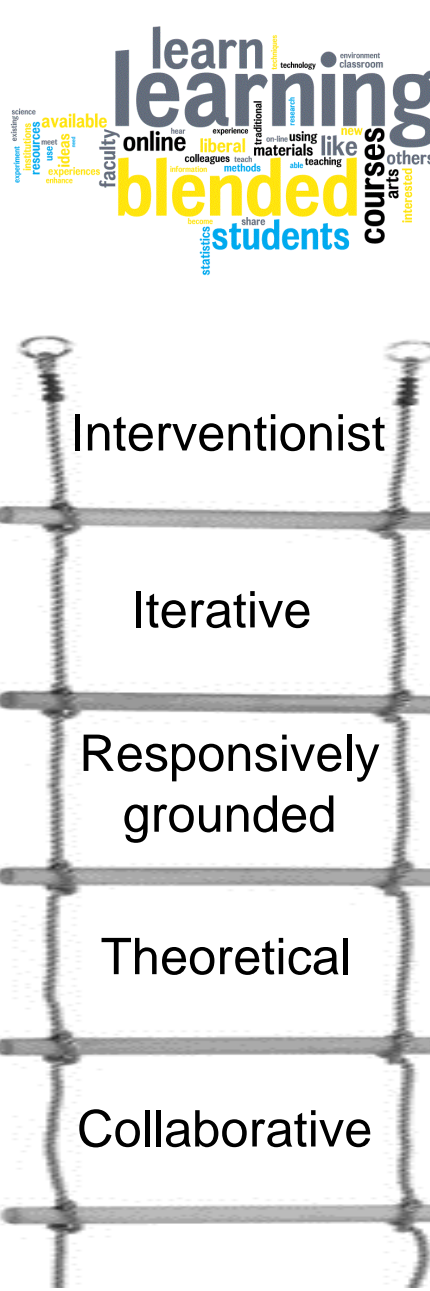
### Research questions

Main aim = development of a theoretically sound and empirically valid guidelines to design and evaluate blended learning environments for primarily vulnerable adult learners

- Which core elements are included in the existing models and good practices to design blended learning environments?
- Which characteristics typify pre-service teachers with a background in vocational or technical secondary education?
- How do the current learning environments look like that aim at supporting understanding of pedagogical concepts of pre-service teachers with vocational/technical secondary background?
- What is the effect of redesigned learning environments on the use of these environments and on students' performance, motivation and satisfaction?

## METHOD

### Design based research



### Mixed methods

#### Qualitative

- Interviews
- Classroom observations
- Journal/diary
- Log-files

#### Quantitative

- Questionnaires
- Tests

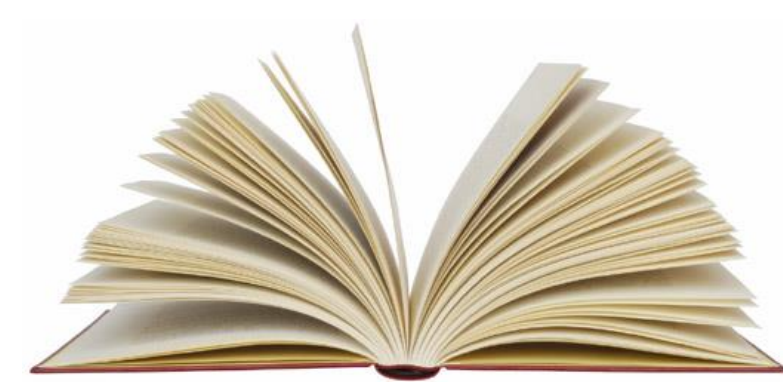
### Central variables

Learner	• Background (e.g. self-efficacy, self-regulation) • Outcomes (e.g. satisfaction, performance)
Teacher	• Background • Outcomes (e.g. satisfaction)
Learning environment	• Face-to-face support • Online tools • ...

## PLANNED STUDIES

### Review study

Analysis of core elements in the existing models to design and implement blended learning environments.



To be presented at ORD (Onderwijs Research Dagen) in Leiden.

### Current state analysis

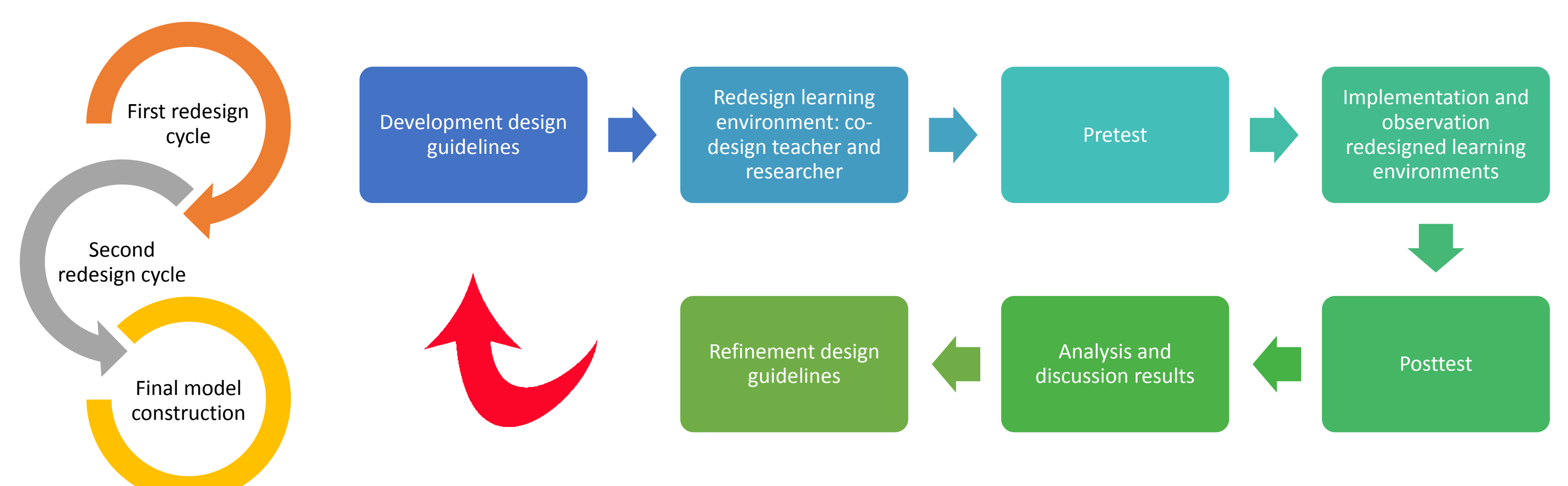
Analysis of...

- existing learning environments** in the specific teacher training in two centers for adult education (CVO het perspectief and CVO de oranjerie).  
*Method:* interviews with lecturers and classroom observations
- characteristics vulnerable adult learners:** adult learners with a background in vocational or technical secondary education.  
*Method:* student questionnaires/interviews and interviews with lecturers

### Iterative design research

**Design guidelines:** the establishment of guidelines to design blended learning environments.

**Course redesign:** several theoretical courses in the specific teacher training will be redesigned on the basis of the elaborated design guidelines.



### References

- Brown, S. (2002). Strategies that contribute to non-traditional/adult student development and persistence. *PAACE Journal of Lifelong Learning*, 11, 67-76. Retrieved September 18, 2014 from <https://www.iup.edu/assets/0/347/349/4951/4977/10261/C5FEA4F0-ED94-4C31-BA62-0250815F7F65.pdf>
- Dziuban, C. D., Hartman, J. L., & Mehaffy, G. L. (2014). Blending it all together. In A. G. Picciano, C. D. Dziuban, & C. R. Graham (Eds.), *Blended learning: research perspectives*. Volume 2, (pp. 325-337). New York and London: Routledge.
- Graham, C. R., Henrie, C. R., & Gibbons, A. S. (2014). Developing models and theory for blended learning research. In A. G. Picciano, C. D. Dziuban, & C. R. Graham (Eds.), *Blended learning: research perspectives*, volume 2 (Vol. 2, pp. 13-33). NY: Routledge.
- McGee, P., & Reis, A. (2012). Blended course design: A synthesis of best practices. *Journal of Asynchronous Learning Networks*, 16(4), 7-22.
- McKenney, S., & Reeves, T. C. (2012). *Conducting Educational Design Research* (pp. 1-244). Routledge.