Learning Format Innovation
A Structured Five Stage Model

Günther Botschen[a]
University of Innsbruck

Josef Bernhart
Eurac Research

Kurt Promberger
University of Innsbruck

24th International Marketing Trends Conference

23-25 January 2025, Venice, Italy

[a] Corresponding author; Department of Management and Branding,
University of Innsbruck, Universitätsstraße 15, A-6020 Innsbruck, Austria;
Tel. +43 512 507 72511; e-mail: guenther.botschen@uibk.ac.at; www. Retail-lab.at

ABSTRACT

Learning Format Innovation
A Structured Five Stage Model

This study engages in the identified research gap of a conceptual framework to systematically develop learning format innovation projects. The so-called “Learning Format Innovation” (short: LFI) approach provides a structured five-phase model that serves as a conceptual guide for the development of any type of new learning format. LFI starts with the analysis of the enacted learning approach followed by the conceptualization of the intended new learning format. Then the intended format becomes translated into concrete touch point experiences along the main constituents. In phase four the materialization into the new learning format takes place. During the final phase the effectiveness and resonance of the evolving new format is evaluated, and necessary adaptations are identified. A case study of the transition of an established “semi-active” learning approach into a new “blended immersive AI supported” learning format is prototypically used to illustrate the application of the conceptualised approach.

Keywords- learning format innovation, enacted and intended learning format, touch-point experiences, materialization, blended immersive AI supported learning

Introduction

For almost two decades, educators have been advocating for transformative innovation (Kovarik, Robinson, and Wenzel, 2022; Karyne, Afzal, and Crawford, 2021; Sasson et al. 2021).) in higher education that incorporate new versions of active learning, today and in the future appropriately supported by artificial intelligence approaches (Holmes & Tuomi, 2022). Still a systematic approach which guides instructors from a thorough analysis of the strengths and weaknesses of the established, often more 'instructor-led' learning approaches towards highly active 'student-centred' AI integrating learning formats, seems missing.

Purpose

The current research aims at filling that gap by designing and testing a structured five stage model that helps instructors together with other relevant system partners to identify and translate an intended learning format into multiple coherent touch-point experiences to generate effective learning results and positive resonance among affected learners and recruiting responsibles (Botschen and Muehlbacher, 2019; Court, Elzinga, and Mulder, S., 2009).

The development of the stage model applies the design science research approach proposed by Hevner et al. (2004), whereby an innovative, purposeful artifact for a special problem domain is created. The authors test the usefulness of the approach in an innovative project whereby a rather semi-active learning approach of two courses in retail management becomes transferred into a blended immersive learning format supported by AI tools.

The following section outlines some theoretical principles that ground our conceptual framework based on relevant literature in the field of organizational brand identity development and touch-point experiences. In section 3 the authors develop the stage model followed by its application in an innovative learning case in section 4. The paper finishes in section 5 and section 6 with a discussion of theoretical and educational implications of the research, limitations, and summarizing conclusions.

Theoretical principles and conceptual framework

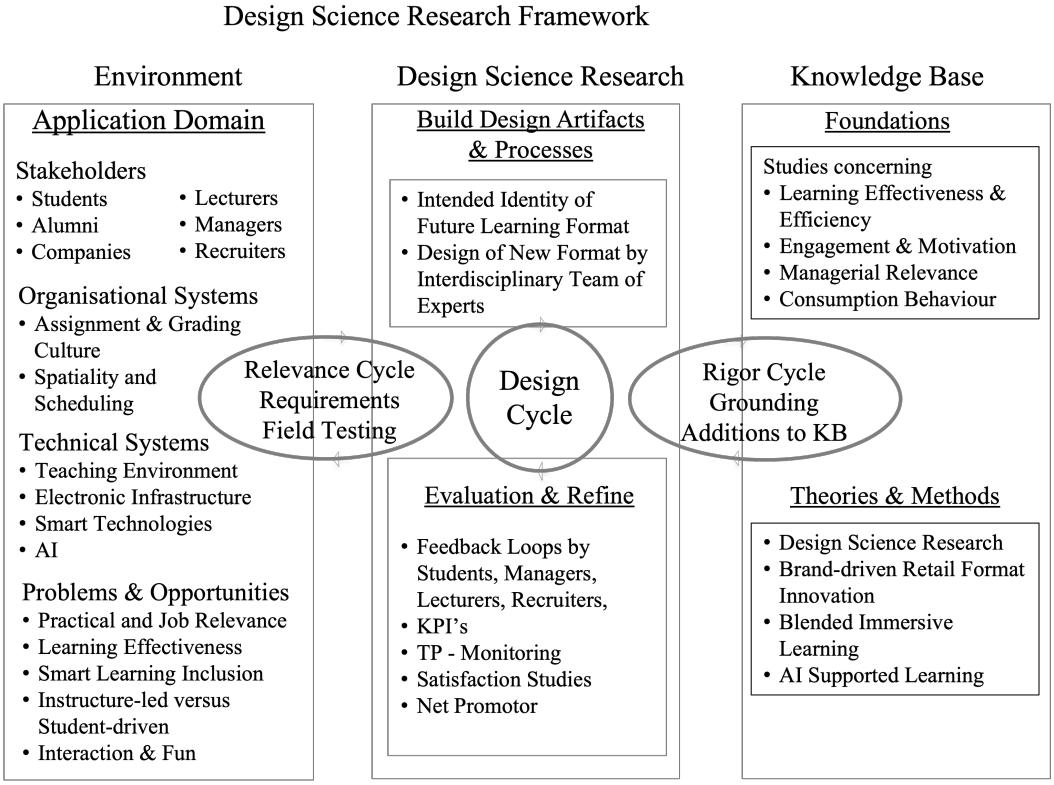
To more precisely clarify the rather vague term of a learning approach the authors introduce the construct of the learning format. The latter is derived from the retailing discipline, where a retail format is the offline or online "store package" that the retailer presents to the shopper and where the vendor interacts along pre-determined touchpoints with the customer (Enders, and Tawfik, 2000). Beside its look and layout, it includes elements of the retail mix such as assortment, pricing, promotion and so forth (Drexel,1981; Messinger and Chakravarthi, 1997; Levy and Weitz, 2008; Gauri et al., 2021; Botschen and Wegerer, 2017). Hence, the authors specify a learning format as the offline or online "learning package" along their main constituents that instructors present to students and where instructors interact at pre-determined touchpoints with the learners (Enders, and Tawfik, 2000). Beside the particular learning space, touchpoint experiences (Brakus, Schmitt, and Zarantonello, 2009) include methods of lecturing, assignments, guest-speakers, excursions, application of AI tools, project work, feedback mechanisms, grading, celebrations etc.

Design/methodology/approach

Following the design science research approach suggested by Hevner et al., (2004) innovative processes to resolve real-world problems can be developed by combining three interrelated cycles; the relevance cycle, the design cycle and the rigor cycle (see Figure 1). In this model the design cycle represents the generation of alternatives that are evaluated

by field testing against the requirements of involved stakeholders until a satisfactory design is achieved. The relevance cycle assures a close fit between identified problems and the new design. The rigor cycle firmly bases all steps of development on knowledge, methods, and empirical evidence available at the time (Hevner et al., 2004).

Figure 1. Design Science Research Cycles for the Supermarket of the Future



Source: Adapted from Hevner et al. 2004

Hence, the development of a a new learning format starts with a detailed description of the problems at hand. The 'Environment Box' in Figure 1 highlights the requirements of the relevance cycle in terms of the application domain and perceived problems and opportunities. The application domain consists of affected stakeholders, organisational and technical systems. The problems and opportunities section lists the stakeholder requirements to achive maximum learning and application effectiveness.

In the rigor cycle we searched for suggestions, already existing in the literature, to resolve the identified problems. Here, we focus on studies concerning learning efficiency and effectivenss and theories (Hevner et al., 2004) and methods (Botschen & Wegerer, 2017) which support and facilitate innovations in the educational sector.

Based on the identified requirements of the application domain and the knowledge foundations an interdisciplinary team of experts[1] developed the first version of a structured stage model to design new learning formats.

[1] Guenther Botschen - Professor of Retail Management, University of Innsbruck; Felix Piazolo - Professor of Business Administration & DSR Expert; Kurt Promberger - Professor Public Management & SAP Expert; Mathias Streicher Mathias Streicher- Professor and Scientific Director Retail Lab, University Innsbruck; Executives of the Spar and Mpreis Food Retailers Austria, Students and Alumni of the Retailing Management Bachelor Programm at the University of Innsbruck, Local Recruiting Companies

Figure 2 shows the conceptual framework "Learning Format Innovation" (LFI) as a continuous circular process consisting of five phases derived from our retail format innovation approach (Botschen & Wegerer, 2017).

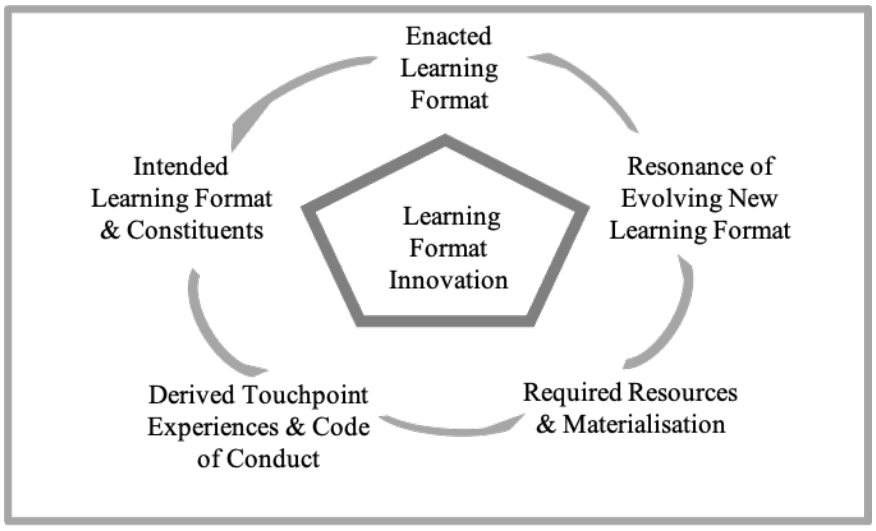


Figure 2. LFI as a Five-Stage Model

The five phases of the LFI framework are defined as:

Enacted Learning Format – Identification of positive and negative patterns of resonance behind the established learning format, expressed from the perspectives of affected students and alumnis, involved lecturers, potential recruiters and entrepreneurs plus studies concerning the same or similar learning approaches.

Intended Learning Format, Constituents & Principles – Development of the guiding strategic frame for the new intended learning format consisting of the driving core competence and attracting value fields, expressed in active learning dimensions, derived constituents and their guiding core principles.

Touchpoint experiences and Code of Conduct - The transformation of the intended learning format and their main constituents into the most effective learning touchpoint experiences for students and instructors which shape and determine all elements, typically content and style, assignments and applications.

Required Resources and Materialisation - Aligning instructor's, employee's and student's behaviors, organizational processes and structures in order to materialize the intended touchpoint experiences of the new learning format.

Effectiveness and Resonance of Evolving New Learning Format – The learning results and resonance of affected participants are continuously monitored and the degree of achievement of specified touchpoint experiences is controlled. Necessary modifications and improvements become constantly implemented.

How these five basic elements interconnect in detail and what processes are at work, is described along our prototypical case "From a Semi-active Learning Approach to a Blended Immersive-AI supported Learning Format".

Application and Testing of a Prototypical Case – From a semi-active learning towards a blended immersive learning AI supported format

Phase 1: Analyzing the status quo of the enacted learning approach

The Covid driven 2020/2021 digital online-move inspired us to question and redesign our established teaching and learning approach of two retail management courses

in the third year of the bachelor of science study. Hence, we decided to perform an analysis of the main drivers of positive and negative resonance from the perspective of different stakeholders, namely affected students and alumnis, involved lecturers, potential recruiters and entrepreneurs. Therefore we conducted focus groups and in-depth interviews with convenient samples of the five stakeholder segments. For the interviews we applied a semistructured interview guide. Stories and anecdotes of contact point experiences created a deeper understanding of underlying patterns of positive, negative or missing resonance. Table 1 illustrates the main positive (left side of Table 1) and negative (right side of Table 1) resonance drivers across the five target groups for the basic and advanced course.

Real live project work with companies	Too little feedback during the phases
Guest-speakers & excursions give deep insights into practical requirements	Separated between the two courses
The BOID Approach, holistically guiding all functions and activities in retail companies	Too little practical application
Presentating and facilitating by student groups	Entrance and final exams, which focus on repetitive instead of applied knowledge
Mixture of on- and offline plus block events	Monoton teaching environment, to much online is demanding and boring as well
Good accessibilty and support of lecturers	Too much frontal lecturing and too little integration of AI tools – smart phone, chat.gpt
	Little personal interaction between all students

Table 1: Positive and negative drivers of resonance by target groups

In summary we observed a deficit of practical applications which all interviewes observed. The lecturing style and exams mode seemed to have little impact on enduring learning effectiveness. A balanced use of online- and offline learning appears to be appropriate.

Phase 2: Intended learning format & constituents

Based on the analysis of the enacted learning format, the future learning format became developed. Our semi-active learning approach in the two courses of retail management was transferred into a blended immersive learning format (Alonso, F., 2005; Thorne, K. 2003; Bersin, J. (2004) supported by AI tools and techniques (Zawacki-Richter et al.,2019). Figure 3 shows the main meaning fields of the enacted and the new intended format surrounding the driving core competence of the formats. In Phase 3 these seven modified and new attractors together with the driving core competence “Student-driven and lecturer coached applied learning experience will be translated into multisensory touchpoint experiences along the main constituents.

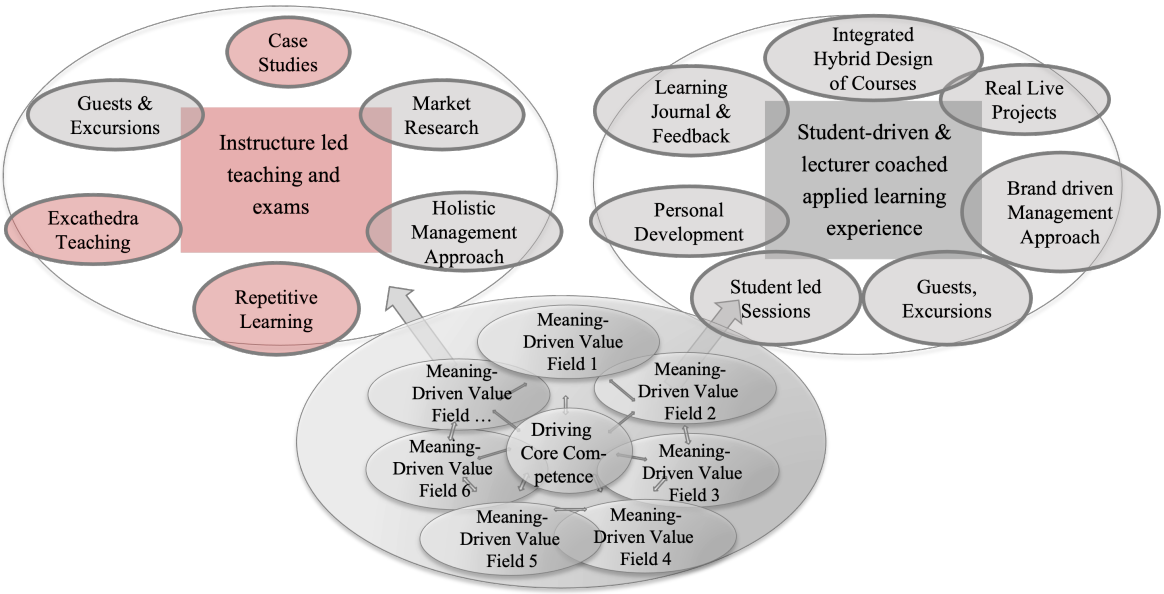


Figure 3: From Enacted to Intended New Learning Format Identity

Phase 3: Translating the new learning format into multisensory touchpoint experiences along the main constituents

In this phase the intended blended immersive learning approach became translated into multisensory touchpoint experiences along the main constituents (Reynolds, Howard, Cuthbertson and Hristov, 2007; Botschen, Combe and Thelen, 2014; Botschen et. al, 2016). Examples of important constituents that embody touchpoint experiences of the new learning format are given below:

Location and schedule – To disrupt the monotony of the lecture hall at the university students experienced different locations during several excursions, presentations at a coffee house of a lecturer, starting and final session at the project ordering company and project coaching online. The integrated two courses were organized into ten block events per semester consisting of an introduction, organization and briefing session, followed by four block sessions with four guests, four online meetings with four company excursions, and a final block event for presenting project results, and enjoying culinary and celebrations.

Lectures – The rather frontal lectures were transformed into student sessions, where teams had to prepare, present and reflect with their colleagues three prespecified course topics. For one session every team had to prepare a video clip which was uploaded and accessible on YouTube. The responsible lecturers coached the teams in the preparation phase and added important content after the teams' presentations in class. To activate discussions and critical reflections students received for every sensemaking comment a "golden coin".

Project – The semester company project, typically consisting of an analysis phase followed by proposals for solving the identified problems, became processed by team members of both courses. Theoretical approaches and conceptual tools were directly applied during the project work.

Guest-speakers and excursions - Four guests gave inspiring insights into their company work, strategically and operatively, ideally linked to the sessions particular content. Four companies were explored by all students during excursions.

Assignments - The entrance and final exam were substituted by a learning journal where students had to reflect all sessions, guest talks and excursions, the applied project work and were asked to provide an open-ended overall course evaluation.

Phase 4: Materializing the new learning format
In phase 4 selected intended touch point experiences of the new retail format were materialized through the processes and behavioral principles - the code of conduct - for achieving and reproducing the intended touchpoint experiences. Ideally any modification and optimization of structure, processes or behaviour are driven by the intended touch point results of the particular constituent and not the other way around. In our case the new format was implemented during the summer and winter semester 2023.

Phase 5: Resonance, learnings and implications
The move from our instructor led semi-active learning approach into a more student driven, blended immersive learning format created strong positive resonance from students, involved lecturers and affected practitioners. Students particularly appreciated the applied and practice-oriented approach, the new assignments where they got the role of lecturers and moderators, as well as joint work of basic and advanced course members for the company projects. The integrative usage of smart phones worked out well, the usage and integrated application of ChatGPT versions needs to be improved in coming courses.

Original/Value

To our knowledge this paper is the first which develops a conceptual framework as a structured five-stage model to systematically innovate the efficiency and effectiveness of established learning formats.

Practical Implications

The Hevner et al., (2004) design science approach is driven by requirements and problem identifications of executives and managers. Hence the designed first version of a supermarket of the future presents huge potential to fulfill the identified expectations of retail managers, customers and acadmic research at the same time.

The relevance cycle consists of several rounds of everyday application, evaluation, learning, and improvement in an implemented test market, until a store is in place that reaches the intended goals in a satisfactory manner.

Social Implications

LFI towards a blended immersive learning AI supported education provides multiple stakeholders with several benefits. Students become more practitioneer oriented and can more easily and successful start their job career. They strongly interact for their presentations and project work in teams.The requirement of a more practical education of executives, entrepreneurs and recruiters is facilitated. Lectureres experience a new way of teaching led by students and problem and project based learning.

Research Limitations and Outlook

This study has its focus on the conceptual development of the LFI framework and one major limitation is its application to one case so far. In summary the newly developed LFI approach seems to be worthwhile to be tested in other course modifications. Ours is just the first trial and needs to be proved in other contexts.

References

Alonso, F., Viñes, J. M., López, G., & Manrique, D.(2005). Instructional model for e-learning with a blended learning process approach. *British Journal of Educational Technology*, vol. 36, no. 2, 217–235. doi: 10.1111/j.1467-8535.2005.00454.x

Bersin, J. (2004), *The Blended Learning Handbook*. New York: Wiley. ISBN-13:978-0787972967

Botschen, G., & Wegerer, P. K. (2017). Brand driven retail format innovation: a conceptual framework. *International Journal of Retail & Distribution Management*, 45 (7/8), 874-891. doi: 10.1108/IJRDM-10-2016-0181

Botschen, G. & Muehlbacher, H.(2019). Identity-Driven Design of Resonating Touch-Point Experiences, Proceedings of the 10th International Research Meeting in Business and Management, Nice, France. https://www.researchgate.net/publication/337224164_ Identity-Driven Design of Resonating Touch-Point Experiences

Brakus, J.J., Schmitt, B.H., & Zarantonello, L. (2009). Brand experience: What is it? How is it measured? Does it affect loyalty?. *Journal of Marketing*, 73(3), 52-68. doi.org/10.1509/jmkg.73.3.52

Court, D., Elzinga, D., Mulder, S., & Vetvik O. J. (2009). The consumer decision story. *McKinsey Quarterly,* 3, 1-11. https://www.mckinsey.com/capabilities/growth-marketing-and-sales/our-insights/the-consumer-decision-journey

Drexel, G. (1981). *Strategische Planung im Handel*. Berlin/New York. ISBN-13: 9783110084658

Enders, A. and Tawfik, J. (2000), The Converging Business Models of Internet and Bricks-and-Mortar Retailers, *European Management Journal*, 542-550. doi.org/10.1016/S0263-2373(00)00043-8

Gauri, D.K., Jindal, R.P., Ratchford, B., Fox, E., Bhatnagar, A., Pandey, A., Jonathan R. Navallo, J.R., Fogarty, J. Stephen Carr, J.S, Howerton, E. (2021). Evolution of retail formats: Past, present, and future. *Journal of Retailing*, 97, 1, 42–61. doi: 10.1016/j.jretai.2020.11.002

Hevner, A.R., March, S. T., Park, J., & Ram, S. (2004). Design Science in Information Systems Research. *MIS Quarterly*, 28(1), 75 -105. https://scholar.google.com.vn/citations?view_op=view_citation&hl=vi&user=j9NDJ_wAAAAJ&citation_for_view=j9NDJ_wAAAAJ:QYdC8u9Cj1oC

Holmes, W. And Ilkka Tuomi, I. (2022). State of the art and practice in AI in education. *European Journal of Education*, ;57, 542–570, doi.org/10.1111/ejed.12533

Messinger, P., R. and Chakravarthi N. (1997), A Model of Retail Formats Based on Consumers' Economising on Shopping Time, *Marketing Science*, Vol. 16, No. 1, 1-23. http://dx.doi.org/10.1287/mksc.16.1.1

Karyne, C.S. Ang, Afzal, A., & Crawford, L.H. (2021). Transitioning from passive to active learning: Preparing future project leaders. *Project Leadership and Society*, Volume 2, December 2021, 1-11. doi: 10.1016/j.plas.2021.100016

Kovarik, M.L., Robinson, J.K., & Wenzel, T.J. (2022), Why Use Active Learning? in: Wenzel, T.J., Kovarik, M.L., & Robinson, J.K., Eds., *Active Learning in the Analytical Chemistry Curriculum*. 2022 American Chemical Society. doi: 10.1021/bk-2022-1409.ch001

Levy M. and Weitz, B., A. (2018), Retailing Management, 10th edition, McGraw Hill, New York. ISBN-13:978-1259573088

Sasson, I., Yehuda, I., Miedijensky, S., & Malkinson, N. (2022). Designing new learning environments: An innovative pedagogical perspective. *The Curriculum Journal*, 33, 61–81. https://doi.org/10.1002/curj.125

Thorne, K. (2003). Blended Learning. London, U.K.: Kogan Page. ISBN 0749439017, 9780749439019

Zawacki-Richter, O., Marín, V. I., Bond, M., & Gouverneur, F. (2019). Systematic review of research on artificial intelligence applications in higher education –Where are the educators? *International Journal of Educational Technology in Higher Education*, 16(1), 39. https://doi.org/10.1186/s4123 9-019-0171-0