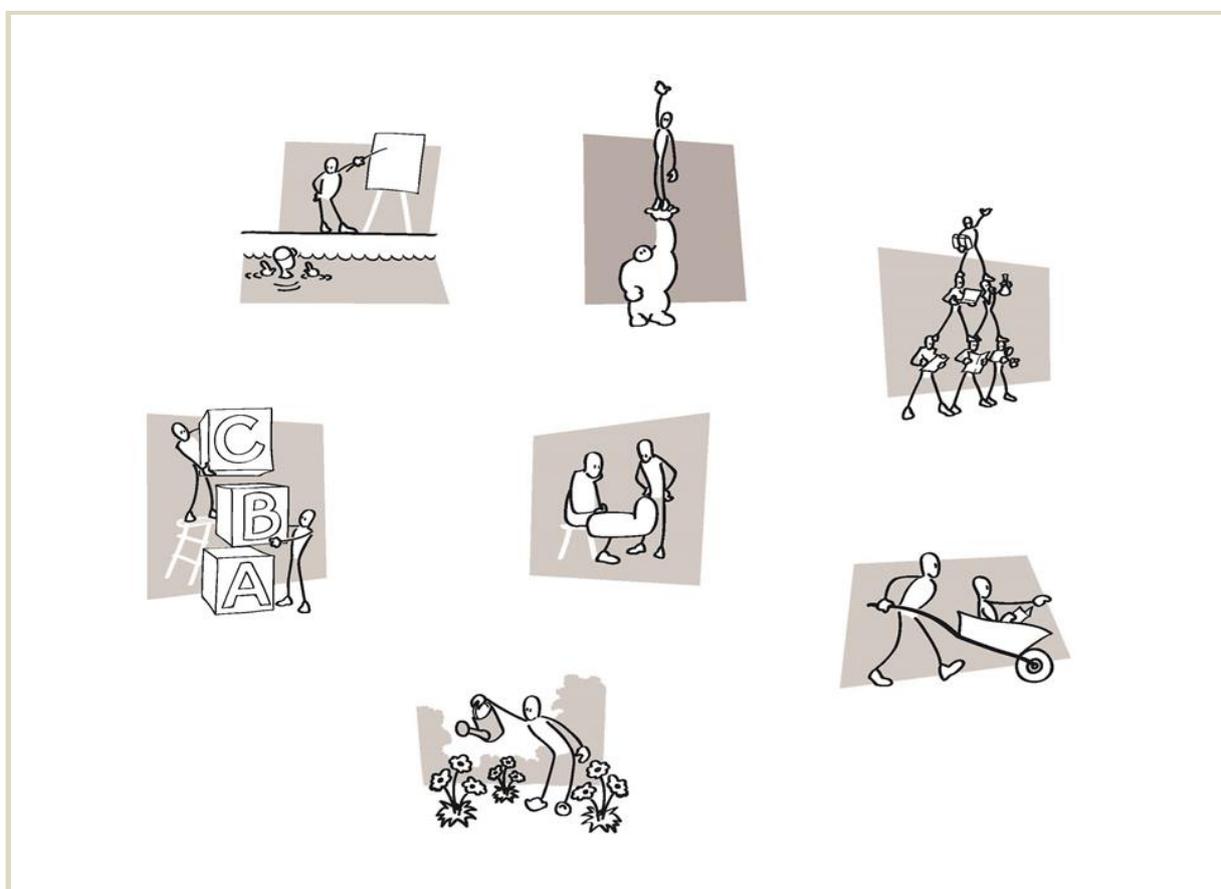# Guidebook for hybrid learning configurations

at the interface between school and workplace

Tool for designing, evaluating and collaborative knowledge building of hybrid learning configurations (HLC)

Hanze University of Applied Sciences
Groningen

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This document was based on:
▫ (earlier versions of) Cremers, Wals, Wesselink, Mulder (2016). *Design Principles for hybrid learning configurations at the interface between school and workplace*. Learning Environments Research. 19(3), 309-334.
▫ Value in the Valley, 2010 (*Value in the Valley, het leerarrangement in de praktijk*, en *Value in the Valley, Evaluatie van het leerarrangement*).

1. INTRODUCTION

Aim of this guidebook

At Hanze University many people, such as lecturers, educational consultants, (project) managers, are involved in the design and implementation of hybrid learning configurations (HLC; also called 'living lab'). This guidebook can assist in this endeavour: what is involved in the design and how can the HLC be implemented?

There are many ways of designing HLCs and there are as many names for these new practices. They have been called, for instance, 'knowledge hubs', 'innovation labs', or 'learning communities'.

This guidebook is intended to assist in the design and implementation of HLCs. It can help decide what an HLC should look like and how it can be developed. It is not a checklist, but it is intended to be a source of inspiration for a dialogue about choices that must be made. It thereby makes these choices explicit. This dialogue also provides the basis for further development and implementation of the HLC. In short, this guidebook is intended as a tool for evaluating and (re)designing a living lab and for collaborative knowledge building.

What is a hybrid learning configuration?

In an HLC two or more worlds merge and are transformed into one new practice. An HLC integrates education, research and professional practice and brings together different education programmes or disciplines.

An HLC can be defined as "*a social practice situated at the interface between school and workplace in which working and learning are integrated. In such a configuration learning is typically trans-boundary (e.g. by transcending disciplines, traditional structures and sectors, and forms of learning), and it is embedded in ill-structured, authentic tasks, such as assignments for real-life clients or other stakeholders in the community[1].*"

Why hybrid learning configurations?

Several goals of higher professional education are addressed in HLCs. The first goal is to educate the 'professional of the 21st century', one who is able to create new knowledge collaboratively across boundaries of disciplines, professions and perspectives. Because these professionals will often have jobs that do not yet exist, they will be lifelong learners out of necessity.
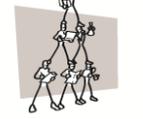
Another goal is innovation of professional practice by way of research. In Hanze University's 'Vision on education 2020' this is expressed as follows: "Hanze University of Applied Sciences (Hanze UAS) is a professional learning community that educates and trains individuals who are capable of conceiving innovative solutions to unfamiliar situations and complex problems. [...] They have the courage to step out of existing frameworks and traditional roles and build new and surprising bridges between education, research and practical application. Rather than being an impediment, their individual differences are a springboard to pioneering collaboration. Learning and working remain connected throughout life. [...] All participants in the learning community collaborate in finding solutions for regional, national and international challenges. This creates living labs in which students, researcher-lecturers, and partners in the professional fields can realise their

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[1] Cremers, Wals, Wesselink, Nieveen & Mulder (2014)

highest potential. […] The members of the learning community spur each other on during this process and are encouraged to discover and use their hidden qualities[2]."

2. DESIGN PRINCIPLES AND CONTEXT

This guidebook was based on a set of seven design principles for hybrid learning configurations; they are presented in the following textbox. The principles were derived from theoretical concepts (in the field of learning and organizational science) and practical experience of lecturers and educational consultants. The design principles have been evaluated and refined by way of educational design research. This set was the starting point for this guidebook. It is possible, however, that the set will be extended or adjusted as a result of the use of this guidebook in practice.

	DESIGN PRINCIPLES FOR A HYBRID LEARNING CONFIGURATION *NB 'Participants' can be: students, lecturers, researchers, practitioners, etc.*	
	Design principle	**Description**
	Fostering authenticity	Working/learning environment (context, tasks, activities, roles, and communication) reflects working practice, a professional working culture and organization.
	Inter-linking of working and learning	Participants learn by performing real life tasks supported by educational interventions that are attuned to the task and to the individual learner, inter-linking working and learning.
	Utilizing diversity	Diversity is built-in, valued and utilized both at team and organizational levels and in internal and external networks.
	Facilitating reflexivity	Participants learn by reflection on tasks and experiences as a person, team and organization. Critical events in the working activities are the starting point for reflection and learning.
	Creating a learning community	Community: every member should experience a sense of belonging to the community. Learner equity: every member of the community is a learner, each at their own level.
	Enabling organization	The organizational structure and culture supports the working process, knowledge creation and sharing at every level (individual, team, organization, society).
	Enabling ecology	The learning configuration is attuned to its surroundings, which includes partner organizations and other stakeholders.

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[2] Educational Vision 2020, Hanze University of Applied Sciences, Groningen (2014)

The design principles do not provide a ready-to-use recipe for designing and implementing an HLC; there are different ways they can be implemented into practice. The choices to be made depend on the context of the HLC, such as the desired learning outcomes, the positioning within the organization, the participants, and the learning and working activities. A detailed description of the context can facilitate comparison of different HLCs and enable designers to learn about them.

This guidebook is intended as a tool for describing the context and detailing the implementation of the design principles into practice. In the following chapter the elements of the context and the design principles will be illustrated by way of an example, the HLC 'Value in the Valley'. This HLC was initiated by two Dutch vocational educational institutions (which are called "MBO" in Dutch) and two universities of applied sciences ("HBO" in Dutch) in collaboration with two companies. The set of design principles was developed within this HLC.

3. CONTEXT AND DESIGN PRINCIPLES OF HLC VALUE IN THE VALLEY

In the following paragraphs the context and design principles of the HLC 'Value in the Valley' are presented in *italics.*

3.1 Context

Activities
Which activities are carried out in the HLC?
For instance: research, consultancy, providing services, designing or constructing products, etc.
The students work in multidisciplinary and "multi-level" (MBO and HBO) teams on real-life assignments that involved issues of sustainability.

Participants
Who are the participants in the HLC?
For instance: students of the study programmes…., lecturers, practitioners (from business, government, societal organizations), researchers, ….
Participants are students and lecturers of agricultural and technical study programmes, participants from two technical companies and a secretary.

Goals/objectives
What are the goals of the HLC?
For instance:
- Students work on assignments from clients in the region
- Regional transition by way of long-term innovation projects which result in sustainable innovations for all stakeholders
- Development and dissemination of innovative educational concepts.

Our aim is to provide clients with good solutions to their problems and to facilitate students to learn from the process. The assignments have to have a certain level of complexity

(preferably research assignments) and require a multidisciplinary approach. In addition, and educational goal is to develop models and tools which can be used for developing HLC's in other contexts. Learning outcomes and usability of the HLC are evaluated each semester and design and implementation are adjusted accordingly.

Learning outcomes
Which learning outcomes are aimed for and by whom – students, lecturers, practitioners, ...
For instance: professional competencies, self-directed learning outcomes.
For students as well as for lecturers and practitioners the learning outcomes are described as 'job requirements'. These requirements give direction to each participant's own learning outcomes, at his or her own level. The job requirements are: innovation, networking, interdisciplinary collaboration and learning, communication, professional effectiveness, personal development, developing one's own field of expertise.

Vision on education and leaning
Which pedagogic or educational theories or models are used?
For instance: the 4C/ID model by Van Merriënboer, social constructivism, ….
The core theory used is the Illeris model for learning; furthermore the 4C/ID model, models for coaching, and 'assessment for learning' are important concepts. Coaching is the central form of facilitating learning, complemented by workshops, meetings, excursions, etc. Educational activities are provided just-in-time and tailor made as much as possible.

Position
How is the HLC positioned within the organization? Which parties or stakeholders are involved?
For instance: is the HLC an elective course, or affiliated to a research group or centre of expertise?
Students can participate in the HLC as a substitute for certain programmed courses, depending on their study programme. The learning outcomes of the substituted courses have to be realized within the HLC and the student is assessed by the lecturers of these courses. Students can participate 2 to 5 days a week in the HLC, depending on the number of study credits they wish to attain.

3.2 Design principles

For each design principle its *features* are described as they were manifested in the HLC 'Value in the Valley'. For each feature, its effect and a condition for its manifestation are presented, as far as reported by participants of the HLC. The students' comments are labelled with (S), and comments by the faculty, which consisted of lecturers and business participants, are labelled with (F). The features are presented in random order.

PRINCIPLE 1: FOSTERING AUTHENTICITY

Working/learning environment (context, tasks, activities, roles, and communication) reflects working practice, a professional working culture and organization.

Examples of features:

FOSTERING AUTHENTICITY		
Features	**Effects**	**Conditions**
Authentic assignment	Challenging, motivating (S)	Actively interested clients
Professional culture	Professional behaviour (S)	Respecting and living up to rules and values *(should be improved)*
Being seen as a company	Easy access to external experts (S) and (potential) clients (F)	-
Senior participants from education and business	Feedback from both enhances quality of work by students (F)	Balanced participation from education and business
Location in business environment	Professional behaviour, appreciation (S); taken seriously by external relations (F)	Finances for the rent
Seniors and juniors as colleagues	Taking each other more seriously (S,F)	-
Integrated school/work culture	Feels like a company (S,F); feels like school (S,F) – *no consensus*	-

PRINCIPLE 2. INTER-LINKING OF WORKING AND LEARNING

Participants learn by performing real life tasks supported by educational interventions that are attuned to the task and to the individual learner, inter-linking working and learning.

Examples of features:

INTER-LINKING WORKING AND LEARNING		
Features	**Effects**	**Conditions**
New ways of learning	Learning by doing and discussing (S); learning by collaboration (F)	-
Learning by example	Learning by watching others work (S,F)	Working in the same room
Balance structure - letting go	Too much structure (S,F); not enough structure (S,F) – *no consensus*	-
Using a method for working in projects	Efficient learning by students (F)	Focus on problem first; reflect on milestones
Using external expertise	Verification of information; generating new ideas, inspiration (S)	Coaching and stimulating students "to go outside"
Balanced focus of learning	Right balance between focus on task, process, person and knowledge (F) – *no consensus about the right balance*	-
Balance working/learning activities	Learning activities support working activities (should not disrupt each other) (S,F)	Supportive information is timely, to-the-point, tailored to participants
Adaptive interventions	Interventions when needed, not too ad hoc (S,F)	Underlying educational concepts and instruments
Increasingly complex tasks	First learning "how it works here" during easier tasks works well (S)	Efficiency; saving enough time for the most complex assignment *(F not sure how to accomplish this)*
Guiding students' learning	Very helpful (S)	Different faculty roles: coach, client's representative, expert

PRINCIPLE 3. UTILIZING DIVERSITY

Diversity is built-in, valued and utilized both at team and organizational levels and in internal and external networks.

Examples of features:

UTILIZING DIVERSITY		
Features	**Effects**	**Conditions**
Working with people from different disciplines and education levels	Learned a lot from other disciplines; for different education levels collaboration (S) and coaching (F) was sometimes difficult.	Good coaches
Learning from each other	Motivation to learn; getting new ideas (S)	-
Using different points of view	More people = more ideas = better results (S); better learning (F)	Balanced diversity in characteristics of team members
Collaboration	Combining knowledge requires collaboration; dividing tasks is not enough (S); collaboration reinforces learning by combining knowledge (F)	-
Feedback from different people	Stimulates reflection and learning about oneself (S,F)	Feedback from people with different backgrounds and views
Meeting new and interesting people	Inspiration by meeting new colleagues from other fields (F)	-
Using each other's strengths	Everyone is challenged to contribute and feels respected and valued for their input (S,F)	Everyone's input is needed for the task
Explaining to others	Understanding of task improves; becoming more helpful, more assertive (S)	Everyone's input is needed for the task

PRINCIPLE 4. FACILITATING REFLEXIVITY

Participants learn by reflection on tasks and experiences as a person, team and organization. Critical events in the working activities are the starting point for reflection and learning.

Examples of features:

FACILITATING REFLEXIVITY		
Features	**Effects**	**Conditions**
Assessment *for* learning	Thinking about what is learned (S)	Setting goals and reflecting on learning with coach
Focus on person	Understanding behaviour of oneself and others; consciously making more future-oriented choices; growing as a whole person (S)	Facilitating individual personal and professional development
Reflection *on* action	Taking responsibility for learning; wanting to improve and live up to expectations (S)	Tools for and dialogue about feedback
Reflection *in* action	Continually thinking about what we do and why (S)	Feedback from practice; immediate adjustment and improvement
Connectivity school programme	Learning outcomes compatible with study programme (S)	Clear communication with school; relevant assignments from clients

PRINCIPLE 5. CREATING A LEARNING COMMUNITY

Community: every member should experience a sense of belonging to the community.
Learner equity: every member of the community is a learner, each at their own level.

Examples of features:

CREATING A LEARNING COMMUNITY		
Features	**Effects**	**Conditions**
Learning from and with each other	Useful tips and ideas (S,F)	Activities for information exchange between teams; working in Communities of Practice (S,F)
Ownership	Taking responsibility; showing initiative (S)	Making students responsible; clear expectations; professional environment; coaching (F)
Sense of community	Enjoying working and having fun at the same time; being willing to help each other; feeling at home (S); being yourself (F)	Culture of respect; openness; genuine interest in each other; equality; knowing each other personally
Learner equity	Improved coaching of juniors and learning by faculty (F)	Congruent learning activities by faculty and students, each at their own level *(could be improved)*

PRINCIPLE 6. ENABLING ORGANIZATION

The organizational structure and culture supports the working process, knowledge creation and sharing at every level (individual, team, organization, society).

Examples of features:

ENABLING ORGANIZATION		
Features	**Effects**	**Conditions**
Facilitating working *and* learning	Being creative as well as organized (F)	Small community; "face-to-face time", flexible organization structure
Sharing physical space	Easy contact students and faculty; knowing who has which expertise; learning by example (S, F)	Students and faculty working in the same room
Connectivity stakeholders	Participating institutions involved and committed (also financially) (F)	Shared vision and concepts; communication tailored to different stakeholders *(needs improvement)*
Learning organization	On-going development and innovation (F)	Research, reflection, monitoring and evaluation (not: routine, specialization, differentiation of tasks)
Explicit culture	Coaching on cultural aspects (F)	Making culture explicit when introducing new participants.

PRINCIPLE 7: ENABLING ECOLOGY

The learning configuration is attuned to its surroundings, which includes partner organizations and other stakeholders.

Examples of features:

ENABLING ECOLOGY		
Features	*Effects*	*Conditions*
Coordinating learning outcomes of students with lecturers study programmes	*Students can account for their learning results and get study credits for their work at the HLC.*	*Good arrangements between HLC and participating study programmes*
Recruiting students in cooperation with study programmes	*HLC is an accepted (elective) part of study programmes.*	*Lecturers of participating study programmes and HLC are well acquainted with each other.*
Acquisition of suitable external assignments	*Multidisciplinary teams of students can be matched with assignments.*	*A network of clients.*
....		