INSPIRED TO CHANGE

A KALEIDOSCOPE OF TRANSITIONS IN HIGHER EDUCATION

Frans Jacobs & Ellen Sjoer (Eds.)

Research Group Sustainable Talent Development

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THE HAGUE
UNIVERSITY OF
APPLIED SCIENCES

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Jacobs, F., & Sjoer, E. (Eds.). (2018). *Inspired to change: A kaleidoscope of transitions in higher education.* The Hague, The Netherlands: The Hague University of Applied Sciences.

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UNIVERSITY OF
APPLIED SCIENCES

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ISBN 978-90-73077-94-2

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Introduction

Frans Jacobs and Ellen Sjoer

“To develop your talents is to believe in tomorrow”

Technological developments have a major impact on how we live, work and learn together. Several authors refer to a fourth revolution in which robots and other intelligent systems take over an increasing number of the current (routine) tasks carried out by humans (Brynjolfsson & McAfee, 2014; Est et al., 2015; Ford, 2016; Helbing, 2014; Ross, 2017; Schwab, 2016). The relationship between man and machine will change fundamentally as a result. We are already noticing this shift, most specifically in the workplace. E.g., in the field of health care, digitalisation and robotisation can empower patients and their families. Hospitals are primarily intended for clients with complex care needs. This has consequences for the tasks carried out by nurses, who become more of a ‘care director’ or ‘research nurse’. Hospitals approach this in different ways, resulting in considerable diversity as to how these roles are fulfilled. These changes, albeit diverse, can also be seen in the roles of accountants, police officers and financial advisers at banks (Biemans, Sjoer, Brouwer and Potting, 2017). The traditional occupational profiles no longer exist and the essence of these professions is shifting. This does not make such occupations less attractive, but requires different qualities. The demand for more highly educated professionals who can carry out complex tasks in a creative and interdisciplinary manner will increase (McKinsey, 2017). Also, other social developments, such as migration and greenification, prompt us to ask new questions, resulting in new paths towards identifying solutions.

To deal with these challenges as a professional requires various 21st century skills or competences, such as greater flexibility, a better ability to learn and adapt, and responsiveness (Onderwijsraad, 2014; Van Water and Weggeman, 2017; Voogt and Pareja Roblin, 2010). However, our energy should not be focused on what does or does not belong in the list of 21st century skills, but more concretely on the knowledge, skills, attitudes, self-images and motivations that support learning and development, as described in various contexts (Walma van der Molen and Kirschner, 2017). Moreover, successful innovation for the goals mentioned entails not only personal factors, but also the context of the organisational culture and how the work is organised and assigned (West and Farr 1989; Kanter, 1986). One of the PhD students of the Sustainable Talent Development research group at The Hague University of Applied

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Sciences (THUAS) and Strategic HRM research group at Radboud University is studying the behaviour of experts who have succeeded in learning new areas of expertise, applying expertise in a different context or linking it to other areas of expertise in order to ultimately create value (Frie, Potting, Sjoer, Van der Heijden and Korzilius, submitted for publication in 2018). These 'flexperts' are triggered by a new idea, which they then develop further, experiment with on a limited scale and attempt to have it implemented. Identifying opportunities and cashing in on those opportunities is a great example of future-oriented learning.

Seeing opportunities and learning to take advantage of them may very well be one of the most important goals of higher education, one that takes on the challenge of preparing students for lifelong learning in a society that is undergoing transition. Considered more closely, this is not really a matter of 'preparation' since students are part of a society of 'do-it-yourself' citizens (Long live (and learn) the Network Society!, 2018) in which boundaries are blurring (Sjoer, De Hei, & Van Helvoort, Eds., 2015). These boundaries between learning as a student of a university and as a professional in practice, as well as between disciplines and between countries are becoming increasingly fluid. Students use technology to start up a business, convince others of their ideas, whether in person or remotely, and help children with their homework. Various authors, policymakers and politicians appear to agree that this vision of the future of higher education requires a different structure and approach. The 'learning factories' should not be transformed 'slowly but surely' but 'fast and surely' into 'flexibly structured breeding grounds' for sustainable talent development, where innovation is stimulated and facilitated (WRR, 2013). In our opinion, there are various paths that lead towards this transition, from complete overhauls of curricula to small-scale experimentation with new forms of collaborative learning, such as in neighbourhood Innolabs (Long live (and learn) the Network Society!, 2018) and hospital learning communities (Baronner & Wallner, 2016).

In this book, we present a kaleidoscope of educational innovation at THUAS, as chronicled by the research team of the Sustainable Talent Development research group. According to Collins dictionary, a kaleidoscope can be described as "(…) something that is made up of a lot of different and frequently changing colours or elements." [1] A kaleidoscope is colourful and therefore cheerful. We are curious about the relationship between people and technology and want to learn how technology can be our friend. Klaus Schwab, Chairman of the WEF, rightfully says the following about the fourth revolution: "It will not only change what we do, but who we are." (Schwab, 2016). This book is also about just that, the talent development and identity of people, especially our students and lecturers. It is about who they want to be, and what they

1 https://www.collinsdictionary.com/dictionary/english/kaleidoscope

want to accomplish jointly, about going beyond programme and department frontiers and institutions of higher education. For every talent to count we embrace the concept of a growth mind-set in which challenges help people to grow.

Since students and lecturers are not guinea pigs and 'people work' research must be ethically justifiable, the evidence-based development of learning environments that support this is essential. Have research show what works. We are fully aware that going from a 'first' and fixed, to a 'second' and new story does not happen overnight (see Lengelle, Chapter3), whether this concerns a student, lecturer or degree programme, but must be accomplished in steps.

The essence of adding value to (higher) education is found on the micro level of the interaction between primarily the lecturer and student, but also among students and the interaction of students in work situations. Learning together is crucial (see De Hei, Chapter 7). This is where the change is taking place, as many have experienced. The Danish professor and pedagogical expert Knud Illeris (2017) discovered that dozens of educational theories contain three key elements that, according to Illeris, should be present in all learning environments: content, incentive and interaction. 'Content' can be perceived broadly and also refers to skills, insights and attitudes, while 'incentive' means that the motives of learners are essential for their interest and efforts. Finally, he refers to the necessity of interaction. Ryan & Deci (Eds., 2017) and dozens of other researchers in the tradition of the Self-Determination Theory point to three key elements a person needs to be intrinsically motivated: a sense of being competent, autonomous and related. A didactical message can also be derived here: abstract 'transmission' is not particularly successful, but having students work concretely, meaningfully and in a worthwhile manner (together) is most effective. Based on these crucial insights, we can address such implicit and explicit student questions as:

- Do I see the usefulness of what is being asked of me?
- Do I feel inspired? Does this make me enthusiastic?
- Can I envision a future based on this study programme?
- Can I gain a bird's-eye view on the meaning of my learning activities?
- Do I feel at home here? And connected?
- Am I understood? And accepted?

Directly or indirectly, the various chapters contain a call to action to address these questions. They offer insights and recommendation for change in practice. In other words, the added value of higher education is also the desire and possibility to be meaningful for society.

This book consists of thirteen chapters with elaborations on several perspectives of the Universities kaleidoscope. The aim of our book is not meant as a purely scientific endeavour, but as a contribution to the future development of universities. The style is popular science, primarily targeted at our lecturers as one of the most important social capitals we have[2]. As the book is addressed to them, all chapters discuss their role, directly or indirectly. The focus is always on the ability to offer students the best possible learning environment. This requires first and foremost a dialogue on the professional diversity of lecturers. Innovative behaviour appears to be crucial for all of them. In addition to these abilities of lecturers, the design of the curriculum is essential for all parties involved. A curriculum largely determines the themes and contents addressed, how work-related, engaging and stimulating learning activities are developed and how lecturers design these on the micro level based on their expertise.

Rainer Hensel and Ronald Visser investigate the personal traits that inspire others in Chapter 1. In new perspectives on leadership, the capability to inspire other team members is the gateway to innovation performance and is much sought in this knowledge era. As many of our students are tomorrow's leaders, it is important to know which personal characteristics indicate the ability to inspire others in self-directed teams Students can be assisted with understanding and developing it.

In Chapter 2, Reinekke Lengelle writes about another important goal of our university: the development of 'global citizens', people who can work and relate across borders and boundaries. Preparing students for this can be achieved by creative, expressive and reflective writing. This is a form of identity learning that involves both an internal as well as external dialogue. However, teachers are not necessarily equipped to foster this. The author argues that higher education must begin to develop and offer learning opportunities for teachers and students that address deep underlying concerns.

Max Aangenendt, Geert Neelen, Piet Willemse, and Ilona Lavèn address several questions concerning the roles and identities of lecturers in Chapter 3. While Reinekke Lengelle focuses on the 'internal' dialogue, Max Aangenendt cs. explores the explicit, 'external' dialogue. A tool was developed with possible professional identifications to help create a common ground and shared perspective for the systematic engagement of staff in a dialogue about themselves as professionals in universities.

Of course, the call for all these changes and the dialogue about their new roles has an impact on lecturers. Bart Lamboo describes in Chapter 4 the insights from the lecturers' perspective of their new roles according to blended learning. Blended learning plays a vital role in a newly introduced educational framework of our university.

2 The designations lecturers, teachers and tutors are used alternately in the book.

He wonders what makes lecturers use these new possibilities and what drives them to either pick up the blended learning perspective or leave it. As a psychologist, he gained insights from in-depth interviews with lecturers. He addressed these five topics: feelings, beliefs, values, needs, and actions.

The innovative behaviour of teachers and the way they experience a curriculum change is the subject of Chapter 5 from Karin Potting, Lonneke Frie, and Frans Jacobs. To anticipate changes in societal and organisational needs, the HRM degree programme wants to put educational processes in place that can be changed rapidly without excessive costs. In multi-disciplinary teams, teachers developed 'learning landscapes' for students in which they approach complex problems by interdisciplinary learning activities. For this, teachers should have access to three types of so-called markets: knowledge, resources, and political support. This new way of working increases their job satisfaction, however, teachers experience difficulties in implementing their ideas.

In universities every student should count. In Chapter 6, Hester Brauer writes about the design group of long-term student coordinators at THUAS that was established to create learning environments for delayed and long-term students. In her research on the 'Power House', she discovered the characteristics of a community-led approach, such as high structure and high support, and has introduced these characteristics into the design group. Together they arrived at a number of building blocks for a learning environment for long-term students. These building blocks enable any degree programme to support its long-term students and help them progress.

Community formation and collaborative learning are also the research topic of Miranda de Hei Following on PhD research, in Chapter 7 she writes about the growth of initiatives for learning communities and professional networks to support professional development. In higher education, collaborative learning offers a chance to prepare students for learning and working in teams in their future work. It is also implemented in curricula to contribute to deep learning, motivation, shared knowledge construction, the development of higher order thinking skills, metacognitive skills, and prosocial behaviour. She constructed a comprehensive framework of eight components that can be used by teachers as a tool for the design of group assignments.

Jos van Helvoort explores information problem solving in Chapter 8. It is an essential set of skills for today's knowledge society in which people are confronted with an abundance of information on the internet and many other media forms. In his PhD research, he constructed a 'scoring rubric' to measure and promote these skills in an educational setting. He engaged his colleagues to make the assessment of information literacy skills even more explicit. He asked lecturers in the Bachelor of ICT which information problem skills they thought were important for their students.

In Chapter 9, Karijn Nijhoff describes the response to refugees and permit holders. Their integration on the labour market is not easy. One of the reasons is the well-known 'unknown means unloved' principle. Group behaviour, ethnocentrism, discrimination and bias are all closely intertwined with our thinking, but this does not mean that change is impossible. Teachers, students and managers can highlight the importance of diversity and put serious effort into ensuring that people are judged for their talents. We therefore all need to examine our own judgements and biases first.

The remaining chapters show examples of curriculum (re)development of innovative programmes at THUAS. In Chapter 10, Suzanne Hallenga-Brink writes about the transition to a continuously improving, flexible and future-proof curriculum for the Programme of Industrial Design Engineering. Because of growing complexity and the increasing speed of changes in the professional field, flexibility is required in order to adjust to changes. This affects the curriculum as well as the students who need to tailor their learning path autonomously to suit their talents and interests. The curriculum was designed together with teaching staff, students, alumni, prospective students, and industry and educational advisors. The author shows where the curriculum follows the CDIO standards (Conceive Design Implement Operate), a framework for engineering education, and where it goes above and beyond these standards.

In Chapter 11, Frans Jacobs, Janine Haenen, and Hester Lentz describe the cooperation of the five programmes of the Department of Business, Finance & Marketing (BFM). This is a response to the digitalisation and robotisation of work in the financial-economic sector, which makes the future for students uncertain but challenging. Teachers build joint modules in a project called Network Curriculum (NWC). By doing so, a great deal of energy is created and unexpected innovative ideas and initiatives are being developed. A document analysis of the exit qualifications and the programme and job profiles of the five degree programmes shows shared challenges and descriptions of competences within the business area. Based on this, diverse (joint) faculty-wide modules and initiatives can be deployed.

In Chapter 12, Rainer Hensel, Frans Jacobs, and Tiffany de Jong describe the main outcome of research in one of our departments on increasing students' motivation. This reveals a very strong effect from goal commitment on intrinsic motivation. Increasing the goal commitment is likely to have a very high impact on motivation. This depends on teachers' qualities to communicate the importance of the learning possibilities offered for the prospective work environment.

In Chapter 13, Frans Jacobs, Dennis Bleeker, and Henk Schaaphok explore systematics for permanent renewal in higher education. Because it is difficult to be up-to-date and

future-oriented with educational programmes, 40 colleagues were asked to give their opinion and insights. There they discovered a fundamental difference in their approach, which was described into two systematics. Systematics A is about the intermittent renewal of educational modules based on future research and module development with the professional field. Systematics B involves permanent innovation with the professional field within theme areas. In addition, they describe distinct types of change with its own renewal frequency.

Our research group comprises passionate colleagues who are highly committed to the future of students and major issues facing society. We are inspired to change in order to optimally equip all those involved for these challenges. We are eager to share and elaborate on the findings in this book, which serves as an invitation for further dialogue, development and collaboration. Finally, we would like to thank all managers, lecturers, students and other partners for the opportunity and inspiration to arrive at our conclusions and insights. We hope that you enjoy reading the results of our work!

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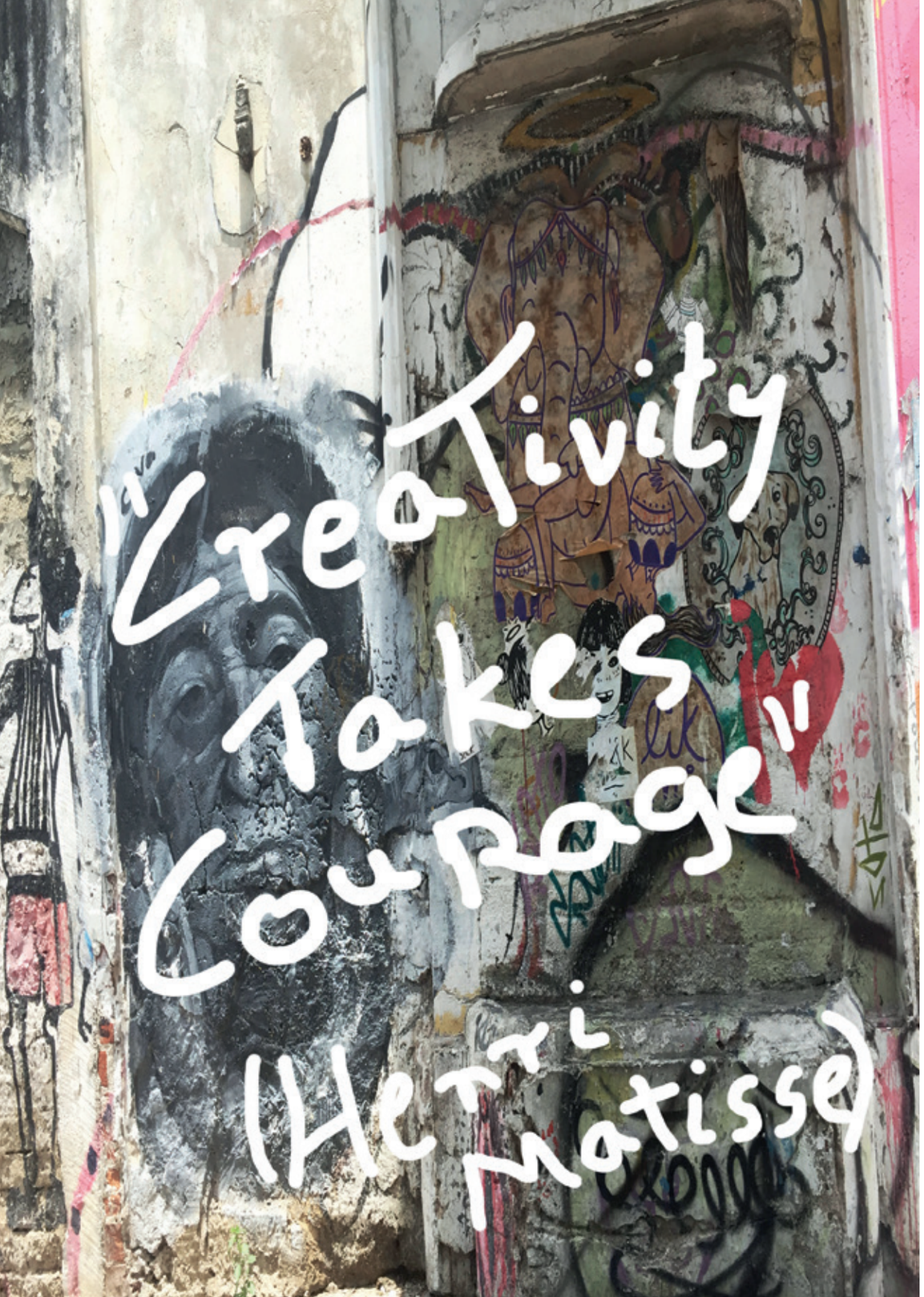

1. Personal Traits for Inspiring, Informal Leadership

Rainer Hensel and Ronald Visser

Many students graduating in higher education will achieve a managerial or professional position, with leadership qualities being highly important. The need to reflect on leadership as an important developmental goal in higher education is highlighted by pointing out that many curricula, especially in the managerial, organisational and economic domain, include specific courses on leadership.

Our thinking about leadership is under pressure. In three diverse ways. First, in various domains of society the character and capabilities of leaders are questioned, in business, politics and society at large. Kellerman (2013) refers to this as 'the end of leadership'. She argues that the traditional gap between leaders and followers has been diminishing for centuries. It is part of the emancipatory development of society. So-called followers simply do not accept the unbalance in power anymore. The traditional view that power resides with those who were formally appointed or selected seems to lose valence.

Second, the origin or source of leadership is challenged. Leadership is the ability to influence others. A key question is what enables people to have influence? Traditional views on leadership suggest that power needs to be grasped by leaders; they need to take charge and control. Modern insights take another perspective: power is not taken, but given by followers to those who will best serve the interests of groups (Keltner, 2016).

Third, the concept of leadership, as a role or function that is restricted to one appointed individual is challenged. With the growth of team-based work, the process of leadership might need revision. Traditionally, leadership was an individual projecting downward influence on followers. However, leadership can also be shared by team members—rotating to the person with the key knowledge, skills, and abilities for the particular issues facing the team at any given moment (Pearce, 2004). Leadership literature and research has predominantly focused on the leader and one tends to overestimate the significance of the assigned leader (Padilla & Lunsford, 2013).

It seems that some of our thinking on leadership needs revision. According to Kellerman, leaders' ability to connect to followers is paramount to gain and remain in power. Dutch management scholar Manfred Kets de Vries (2004) underlines that the main responsibility of a leader is to envision and inspire.

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Hensel, R. & Visser, R. (2018). Personal traits for inspiring, informal leadership. In F. Jacobs, & E. Sjoer (Eds.), ***Inspired to change: A kaleidoscope of transitions in higher education.*** The Hague, The Netherlands: The Hague University of Applied Sciences.

In this chapter we will examine the role of personality and personal values in the ability of informal leaders to inspire other team members. In the first section we will elaborate on transformational leadership and shared leadership. In the next, we will link these forms of leadership to personality and personal values. In the third section the findings of our empirical study will be discussed. We conclude with the implications of our study for leadership practice and the scholarly field of leadership.

Transformational leadership

Leadership can be defined as the process of influencing others in order to reach understanding and alignment of what needs to be done and how it needs to be done (García-Morales, Jiménez-Barrionuevo, & Gutiérrez-Gutiérrez, 2012). In addition, it is the process of facilitating individual and collective efforts to reach the goals of the group (Yukl, 2006). In the mid-1980s scholars started to contrast two forms of leadership: transactional versus transformational leadership (Burns, 1978; Bass, 1988). Transactional leadership focuses on an exchange relationship between the leader and its follower. In exchange for good performance followers receive material, social and psychological benefits. Transactional leaders have influence because it is in the best interest of followers to behave in the way the leader desires (Van Muijen & Schaveling, 2011). However, according to Bass (1988) "(s)uperior leadership performance — transformational leadership — occurs when leaders broaden and elevate the interests of their employees, when they generate awareness and acceptance of the purposes and mission of the group, and when they stir their employees to look beyond their own self-interest for the good of the group." In contrast to transactional leadership, where the leader adopts a quid pro quo approach to align the interest of the individual with the best interest of the organisation, the transformational approach tries to tap into the emotional resources of followers.

Transformational leadership is characterized by the four I's:

- Idealised influence: followers identify with their leaders and respect and trust them.
- Inspirational motivation: leaders' ability to create and communicate an appealing vision of the future and to the leaders' own optimism about this future.
- Individual consideration: leaders act as mentors and acknowledge that every employee has his or her own needs and abilities.
- Intellectual stimulation: challenging followers to rethink some of their ideas and to take a different perspective on the problems they face in their work.

Empirical studies illustrate that transformational leadership outperforms transactional leadership in several ways (for an overview see Van Muijen & Schaveling, 2011). Individual employees are more motivated and perform better. In addition, employees

experience more positive work attitudes, such as job satisfaction and organisational commitment. Also on an organisational level, transformational leadership is more strongly related to performance than transactional leadership. Wide consensus exists that transformational leadership is important for teams to be innovative (see for an overview in: Baum, Frese, & Baron, 2014, pp. 145-146; also in: García-Morales, et al., 2012).

For this chapter, we primarily focus on inspirational motivation, or in other words, the ability or capacity to inspire others. 'Inspiring others' has a positive effect on the adaptive and innovation performance of teams and organisations (Gumusluoglu & Ilsev, 2009). An inspiring leader is perceived as being knowledgeable and sensitive to negative group processes that are related to problems in group information processing (Bass, 1988). Moreover, inspiring leaders influence organisational effectiveness by enhancing a supportive culture for innovation (Sarros, Cooper, & Santora, 2008). The ability to inspire others also impacts the perceived empowerment of team members, which is a considered an important characteristic of successful teams (Özaralli, 2003).

Shared leadership

To mobilize the collective intelligence of various individuals, organisations are changing the way they are organized. Large organisations try to enhance the innovative qualities of employees by means self-directed teams, to continuously adapt to the external environment and thereby to remain competitive (e.g. Volberda, 1996; Garvin, Edmondson, & Gino, 2008). Additionally, entrepreneurs tend to collaborate more frequently in small self-directed teams (Unger, Rauch, Frese, & Rosenbusch, 2011; Kissi, Somiah, & Ansah, 2015; Bridge & O'Neill, 2012).

Traditionally, leadership was an individual projecting downward influence on followers. In addition, leadership was considered the responsibility of a formally appointed leader. However, this interpretation of leadership seems less relevant to understand leadership in self-directed teams. One may argue that leadership in self-directed teams is by definition informal in nature. In the literature this has been coined as shared leadership (Carson, Tesluk, & Marrone, 2007; Pearce, 2004). "Shared leadership occurs when all members of a team are fully engaged in the leadership of the team" (Pearce, 2004). Depending on the challenge at hand the team member with the appropriate knowledge, skills, and abilities can rise to the occasion (Pearce, 2004). Considering the valuable effects of transformational leadership and inspirational motivation, and the emergence of self-directed teams, we are interested in the characteristics that explain which individuals are considered informal inspirational leaders.

Personal characteristics and leadership

Meta studies have shown that transformational leadership qualities are closely related to the personality traits extraversion and agreeableness (Judge, & Bono, 2000). Extraverts are assertive, show social initiative, and need social synergy to outperform. Individuals having high scores on agreeableness highly value close and cohesive relations with others. People with low agreeableness may be more distant. Agreeableness is important for knowledge innovation processes, customer orientation, and when cooperation and interdependencies between professionals are complex. These earlier findings, linking personality to transformational leadership, warrant the further examination of the relationship of personality traits and informal inspirational leadership.

Our central question is: *What personality traits are related to informal transformational leadership in small, self-directed groups?*

As mentioned, for the purpose of this book chapter we will primarily focus on the relationship between personal characteristics (personality traits) and the ability to inspire others. Also, it is analysed whether next to personal characteristic the ability to inspire others is also influenced by team characteristics. This is done by conducting a multi-level analysis.

Study

To analyse the relationship described above, an undergraduate student cohort of a development programme in business administration in higher education, dedicated to the development of both *entrepreneurial* and *intrapreneurial* competencies, was selected to participate in this study (N=66, 6 teams; 71% male, 29% female; age: M= 21.2/ SD=2.1). All the participants of this study were students of the Small Business and Retail Management Programme of The Hague University of Applied Sciences (THUAS). This group participated in a two-day training session in which teams had to accomplish various assignments and challenges. This training took place during April 2015 in The Hague, and was organized at an external location near Scheveningen harbour. The main topic in this session was the training and development of entrepreneurial leadership qualities, the model of Robert Quinn being the core theoretical framework (Cameron, Quinn, DeGraff, & Thakor, 2014). This group was selected because the participants had a comparable entrepreneurial experience and expertise, in fields such as finance and marketing.

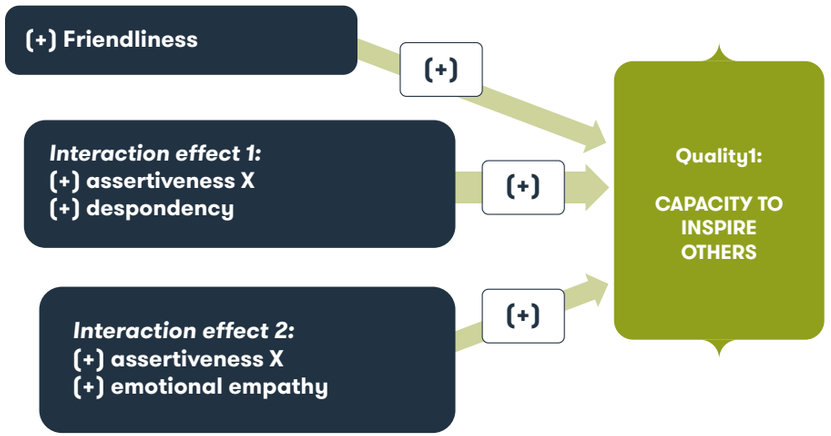
To judge informal transformational leadership qualities a multi-rater system was designed. Each team member was rated by the other team members within one team, and evaluated on the four transformational leadership qualities described earlier as the four I's. The average number of raters was 7.1 for each participant of the study. To measure personality, a Big 5 test was designed, based on the globally applied Five Factor Model (FFM) of personality (McCrae & Costa, 1997). To measure personal values, the four-factor instrument of Robert Quinn was used as a basis for an assessment test, each dimension extended with four items (Quinn, 1991; Quinn et al., 1996).

To study the influence of the group dynamics a multi-level analysis was conducted. By means of this analysis one can examine the strength and significance of team membership on the ability to inspire. A significant effect might illustrate that the ability to inspire is the result of underlying group processes.

The model was developed and tested using MPlus (7.4) software.

Results

Based on our analysis, we found that the ability to inspire others is primarily determined by the personality trait *friendliness* and the interaction effects of *assertiveness* with both *despondency* and *emotional empathy*. Thirty-three percent of the perceived differences in the *ability to inspire others* can be explained by these personality traits. Model 1 gives an overview of these results.



(the sign (+) indicates a positive relationship, meaning that averages on (both) these dimensions lead to an enhancement of the capacity to inspire others)

Model 1. *Capacity to inspire others (33% explained variance); n=66.*

In Table 1 the estimates of the regression weights (the predictive strength) and also the significance levels are presented. The regression weights illustrate the predictive strength of the independent variable on the dependent variable.

	Estimate	Two-Tailed P-Value
Interaction between: assertiveness X despondency	0.306	0.003
Interaction between: assertiveness X emotional empathy	0.349	0.001
Friendliness	0.141	0.020

Table 1. Quality 1: Capacity to inspire others (33% explained variance)

Two interaction (or so-called moderation) effects seem to exist, both having a significant and relatively strong positive effect on the experienced capacity to inspire other team members. As described, an interaction effect means that the accommodation of the two dimensions interact in such a way that this combination is much more meaningful and relevant than the use of the single dimensions alone.

An interaction effects exists between

1. assertiveness and emotional empathy
2. *assertiveness* and *despondency*.

Furthermore, the results show that the capacity to inspire others is related to friendliness. Friendliness measures a warm and friendly expression, leading to higher forms of group cohesion. Group cohesion has an important positive impact on a team performance and effective conflict solving.

Moreover, an analysis was conducted to study the effect of team membership. This multi-level analysis revealed that a moderate effect indeed exists. This means that next to individual capacities related to personality and personal values, group processes have a significant influence on the individual capacity to inspire others.

Discussion

Personal characteristics
The results of this study have shed some light on the personal characteristics that influence the perceived ability to inspire others in self-directed teams.

The following combination of personality traits in particular have an impact on the ability to inspire others:

1) *assertiveness* with *emotional empathy*
2) *assertiveness* with *despondency*

Assertiveness measures self-directedness and self-initiative during social interactions. Also, assertiveness is related to a strong internal focus on own interests.
It is not surprising that assertiveness proves to be highly relevant for informal leadership qualities in small entrepreneurial teams. The sub-scale assertiveness originates from the domain dimension extraversion, a domain dimension closely related to transformational leadership qualities (Bono & Judge, 2003; 2004).

However, the interaction effect with emotional empathy underlines that mere assertiveness is not sufficient to be considered inspirational. Assertiveness needs to be combined with emotional empathy. Only when a team member has the desire to understand the emotions of others will his or her assertiveness be perceived as inspirational. This finding is in line with the work of Keltner (2016) who argues that followers will choose those leaders who will best serve the interests of their group. Careful attention to the emotions of others contributes to this assessment of service to the group.

The interaction effect between assertiveness and despondency is interesting and remarkable. Despondency measures a tendency to experience feelings of sadness and unhappiness. It is closely related to a lower frustration tolerance, based on frequently experiencing feelings of skepticism and discontent (Barrick, Mount, & Judge, 2001). A lower frustration tolerance is defined as a tendency to give up quickly when activities are blocked or frustrated (McCrae & Costa, 1997). Despondency originates from the domain dimension neuroticism. Most research results, especially meta-studies, point out that higher averages on the domain dimension neuroticism have a negative influence on performance (Barrick, Mount & Judge, 2001; Barrick & Mount, 1991). However, in this study, *higher averages* on despondency, a subscale of neuroticism, lead to *higher forms* of experienced shared or informal leadership qualities. Although this might sound confusing, there are various possible explanations for this finding.

First, studies on brain learning illustrate that effective learning in complex and ambiguous work demands alertness (Li, Li, Huang, Kong, Yang, Wei, & Liu, 2015). Higher scores on despondency could be related to higher levels alertness. Consequently, higher levels of alertness might enhance the desire to express one's ideas or vision and thereby inspire others. Second, another related explanation of the importance of (relative) higher levels of despondency comes from the research on creativity. The 'mood-as-input' model of Martin and his colleagues (Martin, Ward, Achee, & Wyer, 1993) suggests that people use their mood as a signal of what is right or wrong in a specific situation. A negative mood therefore spurs individuals to change the situation at hand. In this line of reasoning, despondency in combination with assertive behaviours can be seen as a change initiating element of personality. Third, the role of despondency in relation to the ability to inspire others might also be related to the specific characteristic of our data collection. The study examined the ability to inspire others in the context of a two-day training session. The negative effects of despondency on performance, that previous studies found, might take some time to accrue. The possible alertness and desire to challenge the status quo might outweigh the negative feelings of scepticism and discontent in the short run.

The leadership quality *inspiring others* is also related to the personality trait *friendliness.* Friendliness is a Big 5 sub-scale, originating from the domain dimension extraversion. Friendliness measures interest in and towards others. Higher averages on this dimension enhance the capacity to be effective in the context of change management, team conflict-solving, team development and entrepreneurial effectiveness, because high scores enhance the capacity to strengthen the cohesion whilst interacting with significant others (Smith & Schneider, 2004). This is a very important aspect of your style of cooperative work with significant others, for team effectiveness, attracting customers and for effective conflict solving. The results for friendliness accentuate the importance of cohesion and effective win-win conflict solving as these issues are highly important for effective team development and team performance (Arnold, Silvester, Cooper, Robertson, & Burnes, 2005).

Team level influence

In addition to the impact of personal characteristics on the ability to inspire, a significant although moderate influence of group membership on the capacity to inspire other also exists. It seems that this informal leadership quality may not only be related to individual characteristics, but also to the inspirational synergy between group members. This leads us to conclude that in organisational or vocational developmental programmes on informal leadership, next to individual capacities attention should be given to the quality of the inspiring group processes.

Lessons learned

From an educational point of view our findings are important. The results shed additional light on the importance of personality traits on leadership, and informal leadership in particular. As leadership is an important phenomenon in society and working life, (under)graduates can be assisted in understanding and developing it. But in the context of this book it should be highlighted that transformational leadership is highly relevant in knowledge innovation (García-Morales et al., 2012), which is a core issue in higher education. Consequently, inspiring others is relevant, because group work is commonly used in higher education. Understanding group dynamics within student teams, informal leadership specifically, can help lecturers to explain and discuss effective and ineffective group work. In our opinion, the results of this study offer interesting evidence-based insights to reflect on and develop those personal characteristics that can be important for informal leadership effectiveness.

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People in the Landscape by M. Hiske

2. Writing the Self in Global Citizenship Education

Reinekke Lengelle

Introduction

Higher education is tasked with preparing students for a culturally diverse and globalizing world. Additionally, western nations have an increasingly diverse student population and know the success of their students will depend in part on being able to navigate diversity. There is therefore good reason for institutions of higher learning to promote and facilitate the development of 'global citizens' – people who can work and relate across borders and boundaries, both real and perceived. However, teachers are not necessarily equipped to foster this learning. Many teachers are used to a reproductive way of teaching while the learning that is needed here is identity learning, directed at dialogue, internally as well as externally. This chapter proposes the potential of creative, expressive and reflective writing as a way in which personal development – a form of a reflexive internal dialogue – can be fostered to promote cultural healing and global citizenship. The writing method will be described and a case study on cultural healing in the context of Canada's reconciliation efforts with Aboriginal people will be used to illustrate the learning process involved.

Higher education faces the challenge of helping students to survive and thrive in a globalizing and culturally diverse world (Banks, 2015). We can no longer speak only of 'national identities', but must think in terms of multicultural citizenship (Kymlicka, 2011). But this task is complicated by issues (of fear) of identity loss that can be seen in the rise of radical nationalism, the fear and pressures surrounding refugees and migration, and ongoing economic difficulties that trigger existing cultural tensions (Cogan & Derricott, 2014).
The need for cultural competence has been established. This involves as an ability to navigate borders and boundaries, both real and perceived, and results in people being able to work with and relate to one another regardless of their cultural background (Archambault, 2015; Lowenstein, 2009). Higher education recognizes it should play a greater role in this learning process (Lewin, 2010), yet teachers frequently feel ill-equipped or lack the confidence to provide it or to broach the difficult issues that it bring up (Davies, 2006). This in part stems from the fact that education has traditionally been focused on reproductive learning (Meijers, 2013) and has therefore conceptualized global education with things like 'learning about other cultures' or 'engaging in community service' (Davies, 2006). Cultural competence, however, requires a more

When citing in APA, please refer as follows:

Lengelle, R. (2018). Writing the self in global citizenship education. In F. Jacobs, & E. Sjoer (Eds.), *Inspired to change: A kaleidoscope of transitions in higher education.* The Hague, The Netherlands: The Hague University of Applied Sciences.

in-depth approach to learning where identities are examined and restoried (Lengelle, Jardine, & Bonnar, 2018) and is not merely a knowledge-based type of education. That said research shows that teachers responsible for citizenship education still emphasize helpful activities and knowledge of other cultures predominantly (Davies, 2006). They "tend to rationalize the unfamiliar concept of global citizenship through more familiar concepts and discourses" and this is why "…educators need more rigorous assistance to teach emerging types of citizenship" (Rapport, 2010, p. 179) where real cultural competence can be learned.

By extension, this chapter argues that higher education must begin to develop and offer learning opportunities for teachers and students that address the underlying issues of human fear, such as a fear of identity loss and rigid and unexamined self-concepts (Greenwald, 1980). In order to do this, people must be facilitated in identity-learning processes that facilitate an '*Umwendung'* where self-examination and self-care also becomes a point of focus and the starting point of seeing the 'other' (Schellhammer, 2018). Such an identity learning process involves both an internal as well as an external dialogue (Meijers & Lengelle, 2012) and in this chapter, the emphasis will be on the internal dialogue – an aspect of identity learning that is underemphasized in our predominantly monological educational settings (Meijers, 2013).

Identity is defined here as "a person's internalized and evolving life story, integrating the reconstructed past and imagined future to provide life with some degree of unity and purpose" (McAdams & McLean, 2013, p. 233). This story (i.e. identity) is also multi-voiced (Hermans & Hermans-Konopka, 2010) – indeed it is a so-called multiple identity with "a number of cultural facets…and more, importantly, loyalties." (Davies, 2006, p. 10). By unearthing those facets and loyalties, it becomes increasingly clear which voices might stimulate or what might inhibit key aims of global citizenship education (e.g. social justice, valuing diversity, having confidence to respond to change) (WMCGC, 2002, p. 56). For instance, if one identifies and gives voice to whom one feels loyal to (e.g. people from one's own ethnic background) and what one believes culturally (e.g. 'white people are more organized and capable'), it becomes possible to question this loyalty or to also explore ideas of 'them' and 'us' more honestly. If such loyalties remain hidden or unconscious, they act as default narratives, with the accompanying default responses. This is not to conflate global citizenship with personal development as some researchers have warned (Davies, 2006, p. 16) but rather to acknowledge the importance of reflexivity regarding the self, as a starting point for change. Students and teachers alike must have ways to examine their stories and beliefs (e.g. who am I within this multicultural setting; what and who do I fear; what keeps me passive; which issues personally move me or call to me). Indeed, cultural learning and healing must be experienced in the self, and teachers who understand this and have methods to work with lived experience can facilitate identity development (Lengelle, Jardine & Bonnar, 2017).

Recent research explored the theory and practice of identity change and the possibility of cultural healing through the 'writing the self' method (Lengelle, Jardine & Bonnar, 2017). This method makes cultivating an internal dialogue and creating new stories of identity possible (Lengelle, Meijers, & Hughes, 2016). It involves writing creatively, expressively and reflectively about actual experiences and beliefs in order to construct new stories of meaning and direction. It is a meaning-oriented identity learning method as opposed to a reproductive learning approach and it is proposed here that it has applications for promoting global citizenship, which will be illustrated with a case study.

The Method

Writing the self is a practice of writing our stories to shift our identities from stuck, fearful, and outmoded 'first stories' to life-giving and meaningful 'second stories' (for a full overview, see Lengelle, 2014). As mentioned above, it allows us to explore and co-construct new meanings through creative, expressive and reflective writing and is a theoretically founded and evidence-based method (Lengelle & Meijers, 2015; Lengelle, Meijers & Hughes, 2016). Students and teachers may use it to explore what they value, what pains them, what drives them, and in this way promote cultural healing through personal awareness (Lengelle, Jardine & Bonnar, 2018). They do this through a number of structured exercises, usually in a group setting or sometimes individually, and are facilitated by a writing facilitator. Three types of writing can be distinguished.

Creative writing refers primarily to fiction-based writing that reveal life themes indirectly (e.g. exploring a deplorable trait by turning it into a fictional character and exploring its hidden messages and advantages). *Expressive writing* refers to exploring both the facts and emotions surrounding painful life events in order to create meaningful and health-promoting narratives (Pennebaker, 2011). This type of writing often uncovers unconscious drivers and intrinsic motivation as exploring pain holds keys to our limitations and resistance (e.g. "Writing from the point of view of my 'white identity' I realized I am filled with stereotypes. I am determined now to be more aware of how I act those out.") *Reflective writing* refers to the ability to write reflexively about life events, shaping meaning more cognitively and cultivating the observer position in the process.

In order to illustrate how writing the self promotes the internal dialogue underlying cultural healing, I provide a reflection on a recent writing project I undertook with two graduate students at Athabasca University, Canada's Open University. They both participated in a course called *Writing the Self* (Lengelle, 2003) that promotes personal healing and provides theory, research and experiential learning in this area. The personal healing here (i.e. happening on the micro level) affects the macro level (i.e. society) by makings individuals conscious of their prejudices, fears, and identity stories: they come to understand how what they believe 'personally' has repercussions for their interactions with others, in their direct environment but also on society.

Illustrative case study

Canada, although known in the world as a democratic and peace-keeping nation, has a dark colonial past where the people native to Canada (referred to as Aboriginal or First Nations) were systematically controlled, abused, robbed of their land and cultural heritage, and even murdered in attempts to make way for colonialist governments and new settlers from Europe and elsewhere (Monchalin, 2016). Much overdue but well-intentioned attempts at reconciliation are underway and the need for change is underscored by for instance the high suicide rates and substance abuse rates among this population. The federal government in a report by the 'Truth and Reconciliation Commission' has outlined 94 recommendations both on national and individual fronts that call for honest efforts to promote cultural healing. This background sets the stage for the following *Writing the Self* stories that pertain to cultural healing on the individual level and illustrate the potential of this learning in a wider context.

Charity Jardine, a First Nations woman and school teacher, was exploring her internalized pain and the stereotypical ideas about being an Aboriginal person. She writes:

> In my reality I was inferior because of my Native background. To belong to that race meant you were poor, ugly, drunk, fat, unhealthy, abused, addicted, and likely a failure. I was convinced that the only measures to success and happiness were to get married to someone non-Native, get a higher education, and buy lots of things.

In 2016 she first engaged in *Writing the Self* course (Lengelle, 2003) and tells about how she went from barely being able to swallow to realizing she has been trying to make herself 'swallow' a harmful and culturally prejudiced narrative about herself. In the process of writing narratives of self, engaging in proprioceptive journal writing (Trichter-Metcalf & Simon, 2002) and undoing the beliefs she uncovered through inquiry-based writing (Katie, 2002) Charity began to undo the stories that had become an unquestioned history, which had imprisoned her. She became aware that there are stories about the self that can indeed "…wound us and break us, separate and alienate us, pacify us, and expose us to losses so severe that we can easily cease to be." (Anderson, Holt, & McGady, 2000, p. 61).

Charlene Bonnar, a white woman and college advisor working with Aboriginal students was concerned about their high dropout rate and began to explore what she might contribute to the wellbeing of her First Nations students. However, instead of doing this in instrumental ways based on good intentions and information, she began her own narrative exploration of how she herself had been raised with prejudice. The answer to the question, 'how can I be of real service' required a deeper question, "how did what

I was taught become internalized and how might it now limit my ability to be useful to my students?" In other words, Charlene too cultivated an internal dialogue, which was additionally enriched and enriching through an external dialogue with an Aboriginal knowledge keeper. She learned she had grown up with many stereotypical ideas about Aboriginal people and that the process of changing required both a deeper listening and allowing vulnerability to become part of her conversations.

In writing a book chapter together, Charity, Charlene and I (Lengelle, Jardine, & Bonnar, 2018) concluded that stories of self not reconciled within the self cannot lead to reconciliation – the work of cultural healing must begin in our own hearts. In more academic language this means that the quality of the internal dialogue contributes directly to the quality of the external dialogue and that an internal dialogue is essential in preparing people for a truly globalized world, where people can work and relate across borders and boundaries, both real and perceived.

Discussion

As educators we know that the adage 'physician heal thyself' applies to us too but we are not always clear on how we might do the work with ourselves and students. In part this is because the emotional labour involved in creating an internal dialogue within an educational system that has been inherited from the industrial age – with its corresponding notions of teacher identity as brokers and bearers of 'information and skills' – is uncomfortable and complicated. In research on conversations between students and teachers, we see that teachers still do most of the talking and focus on school progress and are not as focused on exploring topics that are meaningful to students (Winters, Meijers, Kuijpers, & Baert, 2009). In addition, innovation efforts in education are often well-meaning attempts at change that are either not supported well enough by theory and research or are undermined by lack of support by the various levels of leadership that would make real change possible on a structural level. In order to facilitate and make room for fostering more 'internal dialogues' in our classrooms, the narrative about teachers' professional identity and the identity of educational institutions must also change. This too requires an internal dialogue where questions of fear and identity are explored.

Conclusion

The processes of writing the self and re-narrating identity has several promising benefits for both students and teachers in higher education. First it allows us to learn more about ourselves and what blocks our learning (i.e. promotes self-reflection). Second, it allows us to change our story and our identifications and therefore choose differently (i.e. self-direction). Third, it is a companion on the road of life where we literally learn to talk and listen to ourselves and articulate the tacit knowledge that can be unearthed through narrative, journal, and poetic writing. Fourth, the method is playful and creative and although tears are frequently shed in the process, students report a great enjoyment in writing and sharing their stories with others. It is a meaningful dialogue about experience and also has the potential of promoting cultural (Lengelle, Jardine, & Bonnar, 2018) healing in the context of a very diverse student body (Banks, 2015). It also has the potential for creating new bonds in the classroom and allows teachers in higher education to engage in the difficult work of facilitating global citizenship learning. The internal dialogue described here also allows us to 'clean up' judgements and become aware of the need to reach out to others. Not only the actual sharing of vulnerable writing in a class or online setting shows us we are not alone, but 'writing the self' focuses deliberately on where we have become fearful about our own and others' identities and allows us a learning process to unearth those things, heal them in order to reach out to others.

Words of thanks

I appreciate the work Charlene Bonnar and Charity Jardine did with me in our chapter *Writing the self for reconciliation and global citizenship: The inner dialogue and creative voices for cultural healing* (see reference list) and that they gave me their permission to share their stories here in an abbreviated form once more.

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3. Professionals Alike and Unlike

A Tool for Dialogue on the Professional Diversity of Lecturers and Researchers in Higher Vocational Education

Max Aangenendt, Geert Neelen, Piet Willemse, and Ilona Lavèn

Introduction

There is a long history of dialogue on the meaning, importance and purpose of higher education (HE). From in-depth and comparative sources such as the 'History of Western Education' by Boyd & King (1921; 1975), 'Cultivating Humanity' by Martha Nussbaum (1997), and Shin & Cummings (2014), we can learn that having a debate on the role of HE and its employees is a continuous phenomenon.

In our work as lecturers, teachers, researchers, coaches or managers in a university of applied sciences, we do feel that the amount and variety of societal challenges on higher vocational education (HVE) is growing. Institutions in HE are in a process of transforming from traditional 'either or' research or education institutions into more complex hybrid knowledge institutions. Nowadays, universities of applied sciences (as institutions for HVE) in The Netherlands have three main objectives: providing education, conducting practice-oriented research to add to the professional knowledge base, and contributing to innovation in the professional fields of work. Education, research and innovation form the three pillars in the strategy of Dutch Universities of Applied Sciences (Educational Council of The Netherlands, 2015).

These changing societal demands form an impetus for educational reform and innovation at both organizational and individual employee levels (Cummings & Shin, 2014). Changes in context and roles lead to questions: As a teacher/lecturer/researcher, how do I relate to the different stakeholders? What is the real meaning of being a 'good' lecturer or researcher in creating added values, and for whom? Some propose that the new challenges concern everybody and thus should be everyone's job. But when everything becomes everyone's job, how can we really realize the required added values? Others promote a more differentiated approach of accurately fitting talents and tasks to create the flow and employee satisfaction that is needed to realize the desired outcomes. But then how do we work together and cooperate with such an individualistic approach? These opposing positions in the discourse concern the question of how to

When citing in APA, please refer as follows:

Aangenendt, M. Neelen, G., Willemse, P. & Lavèn, I. (2018). Professionals alike, and unlike: A tool for dialogue on professional diversity of lecturers and researchers in Higher Vocational Education. In F. Jacobs, & E. Sjoer (Eds.), ***Inspired to change: A kaleidoscope of transitions in higher education.*** The Hague, The Netherlands: The Hague University of Applied Sciences.

define the 'professional me' amongst the 'we'. In other words, the challenge is how we define and navigate our professional identities within the context of a dynamic multiple-identity organization with increasing pressures for professional diversity (Foreman & Whetten, 2002; Aangenendt, 2015).

Against this background it is not surprising that calls are made to systematically engage staff in a dialogue on professional identities. The aim of this dialogue is to capture the benefits of self-articulation of professional profiles that focus on value creation for stakeholders and also fit one's talents, drives and identifications. Such a dialogue may help to create a common ground and shared perspective about ourselves as professionals in HE. Furthermore, it may acknowledge and value the diversity of professional profiles and ideally discover the opportunities and pitfalls of that diversity. Explicit collaborative and dialogical exploration with colleagues in teams appears to be crucial in order to address the professional pluriformity needed to make it work for the innovation and adoption of new tasks.

The question then becomes: What could serve and facilitate such a dialogue on communalities and differences between colleagues building upon the togetherness of working in HE? How can we facilitate the emergence of a common language that overcomes the confusion of tongues, and how should such a tool and language be developed?

In the summer of 2017, a small team was brought together at The Hague University of Applied Sciences (THUAS) to develop an evidence-based tool to elicit, engage and facilitate such a staff dialogue. This dialogue was held at the openings session of the Department Public Management, Law & Safety (PLS) of THUAS in August 2017.

For this mission we combined doctoral research by Aangenendt (2015) with practical work on the professional roles of civil servants by Neelen and Strijp (2007). We combined design-based research and a case study design as a research framework. In such a practice-oriented research strategy a series of short interactive cycles of ideation, rapid prototyping, field test and redesign was used (Norman & Veganti, 2014; Yin, 2014).

This chapter concerns just one action cycle and presents the efforts to design, test and re-design this tool for dialogue. First we sketch some of its theoretical and empirical foundations. Next, we describe the experiences and reflections gained with the development and use of the 0-version in practice. Subsequently, we present a new version of the tool to facilitate further discourse and dialogue at both individual and team levels. Lastly, we present some future perspectives.

We hope you find it interesting. We invite you to make it yours, fit it to your needs and then try it yourself.

Professional identity and behaviour at work

Professional identity as a mix of identifications

Why bother with professional identity? The popularity of concepts such as identity and professional identity as a means to understand professional behaviour at work is growing. Identity is seen as a key concept to understand "why people think about their environments the way they do and why people do what they do in those environments" (Ashforth, Harrison, & Corley, 2008: 334).

Here we define professional identity as "a mix of identifications with a selection of relevant foci in the context of work and career" (Aangenendt, Kuijpers, & Sanders, 2012; Aangenendt, 2015: 13). This definition is derived from the Social Identity approach, a bundle of well-established theories that focus on the explanation of individual behaviour in the context of social groups, on aspects of inter group diversity, antecedents of identification, and on the linkages between identification and behaviour (Van Dick, 2004).

The idea that people experience different (latent) social identities at the same time is basic to this theoretical framework (Turner, 1999). Not surprisingly, many authors emphasize the multifaceted character of professional identity, because each individual is part of various social groups and has different roles, not to mention personal characteristics, personality and character.

For each individual a different and extensive set of foci can be relevant, such as profession, department, lunch group, work group, age cohort, gender, project team, union, religious and ethnic groups, football club, fast track group, and so on. Thus, an individual's social identity can be derived from various kinds of collectives.

Identification really matters, since we know that there are strong linkages between identification and social behaviour (Haslam, Knippenberg, Platow, & Ellemers, 2003). If you knew your most prominent identification at a specific moment you could almost predict your behavioural tendency. Extant studies suggest that employees' organizational behaviour is often guided by the strength of the individuals' specific identifications in the context of work (Van Dick, & Wagner, 2002; Ashforth et al, 2008).

Applying this 'identity matching principle' (Ullrich et al., 2007) to professionals in HE, it is proposed that an employee's set of identifications will be related to their professional behaviour and achievements in research and education. Evidence indicates that employees' perception and response to organizational climate and

interventions show differences (Bowen & Ostroff, 2004; Griffioen & de Jong, 2014). Present identifications are expected to filter the perception and interpretation and therefore impact the response to the messages that are communicated by leadership and HRM interventions.

Identifications of individuals are not fixed by definition; the strength of a specific identification can change over time. Identifications can become either more or less important to the individual. The experienced fit between the personal and organizational demands and the personal career story seem to be crucial factors that relate to a change of identifications. Other factors involved in change include: private life events, career phase, organizational interventions such as introduction programs and high-quality leadership support, and one's own professional development strategy.

Professional diversity in the context of HE

Research shows that employees in HE can distinguish between at least four different categories of identifications at work: in occupational roles, various organizational collectives, different client groups, and with foci that are related to the personal domain (Van Dick & Wagner, 2002; Ashforth, Harrison & Corley, 2008; Aangenendt, Kuijpers, & Sanders, 2012; Aangenendt, 2015).

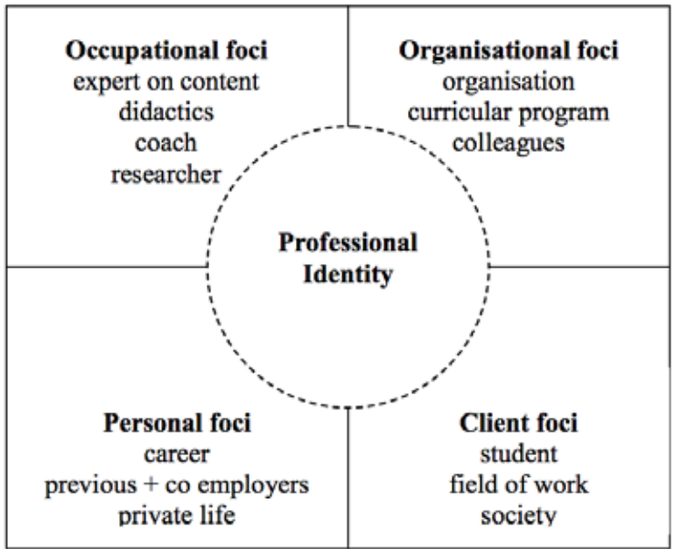

Figure 1: Four categories of identifications for teachers in HE (adopted from Aangenendt, Kuijpers, & Sanders, 2012; Aangenendt, 2015)

Identification with students is high on average, but looking at the spread a great variety can be observed. Prominent self-definitions can be described as follows. Some teachers are motivated to work with students regardless of the content of their expertise ('being a teacher has nothing to do with content'), while others focus on building a new society or strive to innovate the professional field. Others identify themselves as plainly curious, wanting to study an intriguing phenomenon, being a true researcher or identifying oneself as an expert on content, where students just happen to be, almost by coincidence, part of the context where one can do this work.

The same variety is found for the strength of identifications with colleagues and professional roles such as a coach, educationalist, or an expert on content. What is really key for the fit and flow for one colleague can be of no value to another. From this perspective each individual has one's own sense of meaning, setting the frames and boundaries of the personal theory of action at work.

First experiences with the Professional Identity Mix Tool

At THUAS, the Department of Public Management, Law and Safety (PLS) is working towards a new profile. As a first step we facilitated the dialogue with approximately 100 employees of the Department – including teachers, researchers, managers and support personnel - about their own personal professional profile. We consider building shared meaning and understanding of professional diversity as a crucial element to working in teams and building new profiles.

A tool was therefore needed to enable an open communication on professional identities. Such a tool is important since it offers a way to see differences and communalities amongst colleagues.

After a brief introduction based on the research of Aangenendt (2015), we issued a handout with a picture of 13 possible identifications and the following guiding questions:

- What brings me here in the business of HE?
- At the end of the day, my most important contribution is …
- I have noticed that I have no time for …
- My work is meaningless, unless …
- I get energized when …
- If I would wake at night, I would say …

Figure 2. 0-version, handout with 13 possible professional identifications.

The lecturers, researchers, administrators and support staff were invited in small groups to discuss what identifications they recognized in themselves and what identifications were rather unfamiliar to them. It was suggested that they choose one or more identifications that best suited them. As organizers of the dialogue we took a participatory observational perspective and were involved in some of the discussions. We observed and walked around the room to get an impression of the use of and responses to the tool. Furthermore, we explicitly asked some groups to reflect on the yields of the dialogue and the role of the tool.

The results of this first cycle of rapid prototyping and testing in this case can be summarized as follows:

Firstly, the 0-version of the tool allowed the dialogue between all participants to flow well. It had a huge face value and did not need a comprehensive explanation. The members of the Department found it easy to reveal their motives and perceptions of their professional role within the university. The picture handout and questions provided easy access to each other's prominent identifications, which facilitated the dialogues. The 0-version seemed to appeal more to the teachers, researchers and managers than to the support staff; further research on this assumption needs to be done.

Secondly, when it comes to the meaning and added value of these dialogues, the participants shared several reflections with us. One was the rather direct experience of an internal dialogue on sense making and identity construction when being confronted with the questions and the picture. Almost immediately, a process of self-reflection began in looking for the foci to which one's professional self-definition belonged. In the observed dialogues these questions led to active self-defining behaviour, questioning oneself and colleagues on each other's identity as a professional at work. Moreover, an awareness and sense of mixed belonging was activated. From the internal reflection and dialogue it became clear that one relates to several angles in the professional work at the same time but to a different extent. In other dialogues, the differences and communalities between sets of identification and professionals of a different kind were explored. Some participants also used the model to share and illustrate their career history and perspective, explaining their personal career transitions in terms of increased/diminished identification with specific foci. Others used the model to share and explain the tensions in their work when they experienced identification with foci as juxtaposed, for instance between serving the organization and the students or when they experienced a discrepancy between the personal preferred profile and the perceived organizational demands.

A third reflection concerned questions of purpose, added value and meaning. Participants considered whether there was a higher order ranking or solution that every professional should be striving towards. Should some foci be regarded as old school and therefore be avoided? Are some identifications more popular, modern or of higher rank? And from the perspective of the organization and its messaging and strategic perspective: Is there a preferred mix of identifications from the perspective of the university? Is identification with specific foci more popular, fruitful and rewarding for employees? Some implicit ranking with inclusion and exclusion from peer groups with different professional frames and issues of social dynamic within teams surfaced in the dialogues.

Although we tried to avoid suggesting any preferences as to the meaning of work for professionals in HE, in practice it appeared to be impossible to use names of the identifications that are perceived as neutrally formulated by all participants. To give an example, private life as an identification category at work may seem to some participants rather selfish and considered as 'not done', but could be very relevant to someone who is about to retire or has just has experienced some important changes in their private life. Thus attention, perception and decoding of one and the same word can almost automatically convey different meanings and strong messages when perceiving and decoding them through the eyes of a specific identification. Moreover, we know that people relate differently to professional identifications. Identification

strengths can be experienced as a personal skill that belongs to and coincides with the person, rather than as a professional coat belonging to a temporary professional role that can be worn where necessary. In sum, these differences seemed to fuel the dynamic of the conversations.

Finally, although the 0-version of the tool has face value, it may require further explanation on details. This especially accounts for the identifications related to personal foci (career development, co-employers and private life). To make the tool attractive, we used – at random – different colours for the foci but this proved to be disturbing as respondents tried to find out correlations between colours that were not meant to be. Furthermore, there were suggestions made to include additional foci for the organization domain (team), the client domain (professional peers), and the personal domain (professional development). This may create a more balanced framework. We will deal with these suggestions in the next session.

Modifying the tool and future perspectives

In this final section we touch upon a few issues relating to the future perspectives of the tool describing its modification, perspectives for usage in practice and future research.

We modified the 0-version of the tool based on the input of some of the participants and on intensive discussions about our own impressions at the openings session. In the new model we again used the main four categories of identification: occupation, organization, client, and personal. But we added some specific subcategories.

We added 'team' as a focus of identification within the university, since employees reported that 'relying on the group' and working closely together in multidisciplinary groups and networks are becoming more important for goal realisation than in the past. Next we distinguished between the two identities of 'career development' and 'professional development'. The first refers to the formal career steps in a career path – diagonal, horizontal and vertical – for instance upwards related to management. The second identity refers to becoming a better professional – developing one's skills to create added value – which can be regarded as an in-depth career path. The distinction between these two identities is in line with literature on career paths and goal orientation (Patton & Mc Mahon, 2006). 'Professional peers' has been added to the client foci since employees can experience strong identification with groups outside the organization with the same educational and professional background. In the work on professional roles of civil servants, such a phenomenon was found to be especially true for lawyers and engineers (Neelen & Strijp, 2007). Finally, we changed the name 'co-employers' to 'working duties elsewhere' to reflect that some of the

participants work only part-time for the university and have other professional duties that can be more important to them for their professional self-definition within the university. The modified tool is shown in Figure 3.

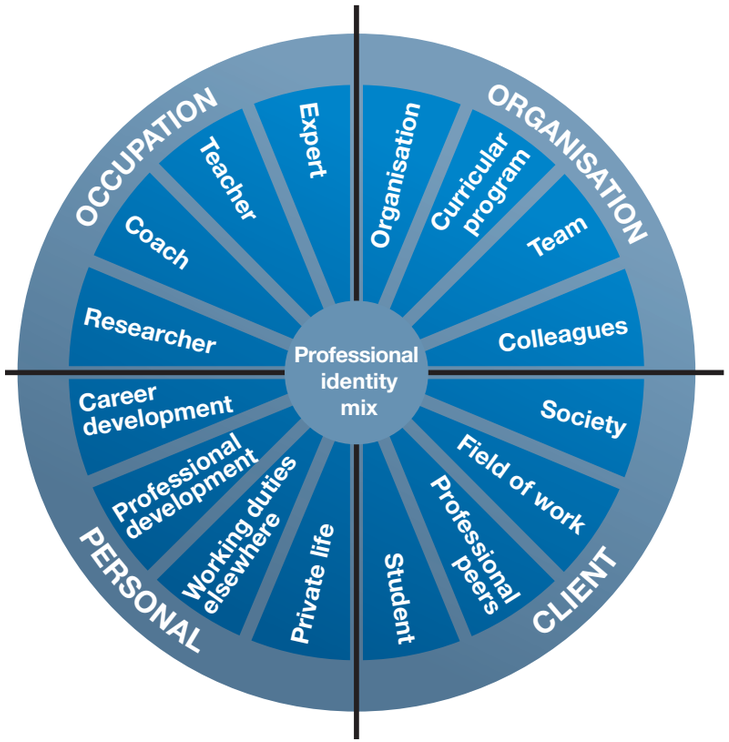

Figure 3. The Professional Identity Mix Tool

How can this tool be used?
Our intention from the start was to develop and test a tool to facilitate the dialogue between colleagues on their professional role and behaviour in universities. A shared language that enables us to understand the communalities and differences helps to balance the social dynamic in teams and serves to make professional diversity profitable.

One detailed practical suggestion to enhance the understanding of the concept of mixed professional identification is to apply scaling, for instance in a spider web model.

This way the users can score differently on the foci using a simple questionnaire. We suggest using five closed questions (yes = 1, no = 0), which offer a first scale (ranging from 0 to a maximum of 5). The same questions can be applied to assess the level of identification with other foci, for example: 'If my work does not contribute to (…..), it would be useless', and '(…..) at work is of great personal importance to me'. The guiding questions for dialogue presented above can serve as further inspiration.

As to usage, the tool seems fit to apply as a lens for individual reflection; it can be used as a base for a team building or team scan instrument, as a reference map for recruitment purposes, and to substantiate the strategic direction of the university to incorporate it in HRM policy. This model could be further developed and tailored to the specific purpose and usage.

In conversations with career consultants, the tool can also serve as a map or compass to highlight one's professional set of identifications. It serves *individual reflection*. One discourse is to explain the presence or absence of flow at work and to address the needs and options for changes in person-job and person-organization fit. Other discourses include the investigation of avenues for professional development, the alignment of task allotment, and the issue of job and career crafting.

In *team development trajectories* this model can add to other frames by giving words to the primary orientations and professional diversity amongst colleagues, and to the resulting social dynamic in the team. Developing a shared language that is open inclusive and stimulating can help to increase and handle the professional diversity that is needed to create added value for our stakeholders and our personal professional demands, both now and in the future. Increased understanding of the professional diversity and how this can become the strength of a team in facing the abovementioned challenges is just one of the possible usages of this tool.

As for *HRM policy*, resourcing and professional development strategies, the tool could also be used to articulate the necessity of recruiting professionals to our teams who have additional or complementary profiles, and to allow existing team members to bolster parts of their respective identities through personal developments tracks to strengthen the team's ability to face the challenges ahead.

Future research on the professional identity mix tool is the final issue that we would like to put forward. Up to now, we have worked rather intuitively within an action research design, while building explicitly on decades of research into social identification and employees' organizational behaviour. Taking social identity and identification as a framework, this language can be enriched by unlocking the growing body of knowledge

on the social dynamics in and between (professional) groups, and gathering insights into how employees in knowledge intensive organizations navigate their career. In order to discover more about the social dynamic within our organizations, we recommend a comparative case study approach across universities (Wenger, 1998; Yin, 2014). A series of case studies can offer the building blocks that enable us to learn more about the effects of interventions in organizations (Kampen & Andriessen, 2015). We expect such case studies will substantiate our local experiences and knowledge, so we call for a collaborative organizational learning strategy to develop the shared understanding that is needed to fruitfully navigate the individual and organizational dynamics of professional diversity within universities.

Finally, we invite you to build your own case on 'professionals alike and unlike', take this tool as example, fit it to your needs and try it yourself. And if you do, please let us know.

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4. In Motion Around Blended Learning

Insights from the Lecturers' Perspective

Bart Lamboo

Blended learning is not a flash in the pan, it's here to stay. At The Hague University of Applied Sciences (THUAS) the implementation of blended learning is not yet in an adult stage, but in a newly introduced educational framework (The Hague University of Applied Sciences, 2017) blended learning plays a vital role. The intention is for teams to come to a shared approach when it comes to blended learning. In his blog, Leonard Geluk, (Geluk, 2016) the Chairman of the Executive Board of the University notes that 'the development is slow to get off the ground' and 'there is still work to be done before we can fully embed ICT in education.'

The main goal of this research

The toolkit of teachers has been supplemented with many digital tools in recent decades (Geluk, 2014), but what makes lecturers actually use these new possibilities? What causes them to pick up the toolkit or leave it? Jacobs (2013) indicates that people's ability to exploit the benefits of technology, in particular digital technology, is not obvious and can be a big challenge, especially for teachers.
The central question to this study is: *What brings lecturers in motion around blended learning?* In my opinion, gaining more understanding in the lecturers' perspective is an important part of the 'work' that Leonard Geluk describes above. This is the main goal of this research.

Why keep reading?

On the following pages, you will read an overview of the insights I gained from in-depth interviews with nine lecturers from two faculties of THUAS.
If you are a lecturer I hope you recognize yourself in what you read, that you feel you're not alone in what you feel, value or need. Perhaps this helps you understand a colleague better, or to help yourself or others move forward and take the plunge into blended learning.
If you are a manager, advisor or policy maker I hope you realize that you have a key role in this process too. I also hope that what you are going to read will help you understand what happens in the hearts and minds of the lecturers you lead or advise. I hope what you read helps you connect with them.

When citing in APA, please refer as follows:

Lamboo, B. (2018). In motion around blended learning: Insights from the lecturers' perspective. In F. Jacobs, & E. Sjoer (Eds.), ***Inspired to change: A kaleidoscope of transitions in higher education.*** The Hague, The Netherlands: The Hague University of Applied Sciences.

And if you are not part of one of the above-mentioned groups, you are of course invited to keep reading too!

Method

Research shows that teachers diverge in their use of online learning resources in their education and the blended design of lessons. Often a distinction is made between pioneers (or innovators), early majority (or forerunners) and late majority (followers) (Fransen, 2016; Rogers, 1962). I use this division in my research….by taking three groups of lecturers, which have been selected from two faculties within THUAS and nine semi-structured interviews have been conducted. Five lecturers were from the Department for Business, Finance and Marketing (BFM) and four lecturers from the Department for Social Work and Education (SWE).
Based on the ideas of the 'design thinking' methodology (Both & Baggereor, n.d.), curiosity and understanding of the teacher's perspective is central in the way that interviews are conducted. Teachers are challenged to tell stories based on elicitation techniques and creative interview forms. The (semi) structure in these interviews arose from conversations with (blended learning) professionals within the university and earlier literature research into the motives and perspectives of teachers on educational innovations.
The interviews were recorded and transcribed. Analysis occurred through open coding with the following topics as a framework.
Research question: What brings lecturers in motion around blended learning?
Five topics (feelings, beliefs, values, needs and actions) were central in gaining insight into this central question.

1. *Lecturers' feelings about blended learning*

Frijda (2005) makes many connections between behaviour and emotion, and on the basis of this research it was decided to ask for emotions about the subject. An image sometimes says more than a thousand words. To make it easier for the teachers to talk about their feelings, we searched for images that could symbolize their emotions. Lecturers were asked this question: Which of the above pictures say something about your feeling concerning blended learning?

2. *Lecturers' beliefs concerning blended learning*

According to Albert Ellis (the inventor of RET therapy), thoughts and beliefs affect our emotions and our behaviours (Yankura & Dryden, 1994). Insights into lecturers' thoughts and beliefs around blended learning was explored during the interviews by asking each of them to finish the following sentence: "I believe blended learning is …"

3. *Lecturers' values in blended learning*

The uses and gratification theory (Ruggiero, 2000) formed the basis for questioning lecturers' motives (or gratifications) and values. Lecturers were asked *why* they would consider 'blending' their lessons in the interviews in order to gain insight into what they value in blended learning.

4. *Lecturers' needs when it comes to blended learning*

Questions about the needs of the lecturers were based on the toolkit of the design thinking approach (Both & Baggereor, n.d.) asked throughout the interviews.

5. *Causes to act*

A better picture has been obtained by asking questions about the experiences lecturers had had concerning blended learning by using a symbolic traffic light. What caused them to 'go'? What caused them to act? What caused them to 'stop'? What caused them to come to a standstill?

Results

Below you can read the insights from the nine in-depth interviews on the five questions just mentioned.

1. How do the lecturers feel about blended learning?

The lecturers did not have one single feeling about blended learning. A wide spectrum of feelings was expressed within the interviews. Both negative and positive feelings occurred with almost all of the lecturers. Although positive feelings were mentioned more often by the innovators and the early majority, feelings such as *fear* and *inconvenience* were also indicated by them; they seemed a natural part of the process.

The image that was most often chosen by the lecturers to describe their feelings is one of a free fall. The *fear* of leaping into the deep is a feeling broadly shared amongst the lecturers. "It can be a kind of leap into the deep, or a leap to something that you do not know the outcome yet." (Respondent 7, personal communication, 27 November 2017). It is new and therefore *scary*. Jumping can also be *fun* and *exciting*, but first you have to go over a threshold. Some lecturers describe *pride* when they succeed. "Yes, it worked! Sometimes I feel as if I've found a piece of the holy grail." (Respondent 1, personal communication, 31 October 2017). *Vulnerability* and *uncertainty* are much described feelings during the implementation process, the new role feels *uncomfortable*. "This vulnerability is scary. When you give lectures you know exactly what is going to happen." (Respondent 1, personal communication, 31 October 2017). Some lecturers sometimes feel *overwhelmed* by the complexity and lack of overview. This, and feeling alone within the process (students can also be hard to motivate), can cause *frustration*. Other lecturers (more often the innovators and the early majority) also identify positive feelings: they *enjoy* the freedom, the new possibilites and learning experiences that blended learning can bring to their classroom.

2. What beliefs do lecturers have concerning blended learning?
Again, we see a diverse spectrum of answers. When we look at the beliefs about blended learning, we see that these are generally more negative in the late majority group.

Some of the interviewed lecturers see blended learning as *supportive to contact moments*, which, according to them, should remain central. "Blended should be supportive to school work." (Respondent 8, personal communication, 4 December 2017). One lecturer said that he thinks blended learning is *a lot less complicated and innovative* than he first thought.

On the positive side of the spectrum, some lecturers see blended learning as a *natural development* that belongs in (the future of) education. "Blended learning is very obvious in this time. Because yes, we do more and more digitally and there are more and more possibilities digitally, so why not use them." (Respondent 3, personal communication, 22 November 2017). Blended learning is also described as a *valuable opportunity* by some lecturers. Furthermore, these lecturers are convinced that blended learning *offers new opportunities* to make education *more flexible and stimulating*. They also believe that blended learning can be *fun*.
On the negative side of the spectrum, the *complexity* of blended learning is often mentioned and some lecturers find it *unclear* and *difficult*. Some teachers believe that they are *not good at it* themselves. A few teachers consider it *risky* even; it could lead to less competent lecturers and students and even be used as a *cost-saving measure*. They think one *should 'get it right', the first time*. "It could create the possibility for lecturers to be deployed on courses that they do not know much about." (Respondent 6, personal communication, 4 December 2017).

3. What do lecturers value in blended learning?
A common denominator in the answers given by the lecturers is that they see blended learning as an opportunity to *increase the quality* of their lessons. Blended learning adds value in various ways, according to them. Lecturers indicate that they see the era, society and student population changing rapidly. They see blended learning as a way for the educational sector to *stay in line with these developments*. "The increasing complexity of our society... Whether that is positive or negative, we should do something with it." (Respondent 8, personal communication, 4 December 2017). Lecturers ultimately want to give the best lessons possible. Many say blended learning adds value by *increasing opportunities in activating students and making classes more varied and less one-sided*. "I have to say I notice that students appreciate alternatives to just hearing a lecturer talking." (Respondent 3, personal communication, 22 November 2017).
Most teachers want to *'connect' with their students* and are looking for tools to do so. They appreciate the possibilities that blended learning gives them to *adapt their approach to the (individual) characteristics of the students*.
Some lecturers mentioned valuing the opportunities that blended learning offers to *increase connectedness* and to *let students learn from each other*.
Finally, a few lecturers value the *personal learning opportunities* that blended learning offers them. They see it as an opportunity to develop.

4. What do lecturers need when it comes to blended learning?
The lecturers' needs cover several levels, which I will also use to structure the section below. First, you will read about the needs of the lecturers at university level, after which managerial needs will be addressed, followed by needs that relate to the team in which the lecturer works. Finally, individual support needs are described.
Some teachers mention the need for a 'backbone' for blended learning at university level. It must also be considered important at the top level, they say. This is expressed in (few) offered facilities, but there are also needs in adjusting the layout of classrooms accordingly or in making teaching periods more flexible to match new teaching methods.

The managerial level was mentioned frequently in the interviews and seems to be a key part of the implementation process. Many lecturers consider it important that the manager sets out the general lines, directs the whole team and encourages sharing. Although 'pressure' sometimes seems a dirty word within the university, some lecturers say it can help them get over the threshold described above (at feelings). Some lecturers mentioned that they hope for a positive kind of pressure, in which their strengths are considered and mistakes are learnt from. Blended learning requires a great deal of time (for development, preparation and maintenance) and most of the interviewed lecturers expressed the need for a manager who is realistic in facilitating them and the effort they need to put in. "It takes a lot of time. I just do not have that time anymore because I have many other tasks." (Respondent 5, personal communication, 28 November 2017). One lecturer says that lack of time can sometimes also be used for an excuse when we feel insecure.

Many lecturers indicated the need to feel connected to others within the process. "I think that the feeling of doing it together is essential." (Respondent 5, personal communication, 28 November 2017). Even innovators indicated that doing it all alone is ultimately very difficult to sustain. They feel the need to walk the path together rather than go it alone. They want to get feedback on how they are doing, and be stimulated and inspired by their peers. (One lecturer used this image of someone who is alone to explain his need for togetherness.)

In terms of support the lecturers expressed different needs, but a common denominator was the need for a visible and 'hands-on', preferably personal, support which fits into their work process. "People must have the idea that you are there to help them. You have to remove a threshold." (Respondent 4, personal communication, 27 November 2017). 'Just in time' information seems part of this formula. If offered at the wrong moment, too much information can contribute to the feeling of 'overload' (mentioned in feelings). Some lecturers expressed a need for overview and a concrete picture of the possibilities and best practices. By dividing the process into small steps, the threshold can be lowered. Some lecturers indicated that blended learning should start with the basic teacher training at THUAS. A good foundation must be laid, as it were, to build upon later on. In terms of didactical support, several teachers indicated that they want to know how they can motivate students when using blended learning. In technical support, some lecturers would like to see a hands-on approach also. Working together with experts who know the Programs well in a technical infrastructure that works.

5. What causes lecturers to act upon blended learning (or not)?
This question has two sides: What causes lecturers to act? And what causes lecturers to come to a standstill? These questions are answered below in this order.

When lecturers were asked about their experiences with blended learning and what caused them to actually do things, a number of insights arose. Some of the teachers started experimenting with blended learning out of intrinsic motivation, just because they liked to try or learn new things. Other teachers indicated that pressure from a manager led to their movement. A clear assignment, combined with attention and a sense of security, caused them to pick it up. "It is new, so the manager's role is to give a clear assignment. That is that threshold. Otherwise you will fall into your daily routine again." (Respondent 4, personal communication, 27 November 2017). It also helped if a manager provided enough time and space for the assignment to be completed appropriately.

Furthermore, the need for togetherness mentioned at the needs section also appears here. When colleagues engage in blended learning this causes others to follow. The 'culture' within a team makes a difference. The need to do it together doesn't only apply

to colleagues; the effort and the feedback from students is also a motivator in lecturers' behaviour. "It lifts my spirits when second-year students ask: Are there clips for us to watch again?" (Respondent 5, personal communication, 28 November 2017).
Awareness of the importance and added value of blended learning is a motivating factor in the behaviour of some lecturers. Not only by themselves, but within THUAS as a whole and at managerial level.
Furthermore, trying out and working with blended learning also provides cause for further action. By going through the process and gaining knowledge and skills, the confidence arises to take the following steps.

When we look at what causes lecturers to come to a standstill, we recognize the aforementioned topics. Most often lack of time is mentioned. When their manager sets other priorities and there is no time for blended learning, the implementation comes to a halt. "It is quite a big investment on top of your other tasks." (Respondent 6, personal communication, 4 December 2017)
Many lecturers experience a high threshold (most often in the late majority group), sometimes self-imposed 'knowledge clips', for example, have to be of really good quality, according to lecturers. Sometimes the organization adds to the threshold that the lecturers experience. Some lecturers feel that there is little room to make mistakes for instance. One lecturer said his blended lessons are right at the centre of attention. Some lecturers can feel they can no longer see the forest for the trees where the possibilities in blended learning are concerned, which can cause a wait-and-see attitude.

A number of lecturers who tried blended learning indicated that the new role felt uncomfortable (see feelings) and that the students were difficult to activate, which posed a risk of falling back to the familiar. "You notice that students are not used to it. And if you do not have too much energy yourself... You have to say: 'If you don't want to do it... it has to end here'." (Respondent 5, personal communication, 28 November 2017).
Multiple lecturers mentioned that a lack of connectedness (to either colleagues or students) is a cause for them to stop. "In the end that's a killer. You can only think of and do so much on your own." (Respondent 1, personal communication, 31 October 2017).
It can be difficult to involve others (both colleagues and students). One lecturer indicated that it was difficult to connect with a learning environment that he had not developed himself.

Poor support was another reason for some lecturers to come to a standstill. Think of not connecting to the lecturers' needs, engulfing lecturers in information at the wrong time, and having a know-it-all attitude instead of creating insight. "It's as if a bin of information has been emptied over you. You can do this, you can do that... And in the end you cannot see the forest for the trees anymore." (Respondent 7, personal communication, 27 November 2017).

Many lecturers mentioned the technical side: When it doesn't work, I'm out. A few lecturers experienced being dependent on support (editing videos for example) as a let-down.

What do we take from this?

To get people moving you first need to know what moves them. What do these insights mean to bring people to action? Is it possible to convert the results into a practical approach to implement blended learning at THUAS?
An approach that is based purely on innovators to pull the cart seems to be inadequate. In order to scale up blended learning at THUAS, a team effort is needed. Lecturers express the need for connectedness. At various levels within THUAS, one must understand and underline its importance. There must be willingness for action. It is important to be realistic in the fact that it also requires an investment, both in time and effort. Such a change can bring feelings of anxiety, tension and inconvenience for lecturers. Lecturers need to be helped over this threshold. Positive pressure can help, but there is a thin line and there are risks of exerting too much pressure. Interestingly, the study indicates that we should not only be looking at lecturers for the solution.
The manager also appears to play a key role in the process, and a solid foundation is essential. It consists not only of a human component, but also of a technological component that is user-friendly and that (always) works. In order to achieve a mature implementation, the support must also be geared to a serious increase in use and link up with the experience of both students and lecturers. It also seems important to offer information and support at the right time and in the right way.

What's next?

From the methodology of design thinking (Both & Baggereor, n.d.), it is important to give lecturers a central role in the next steps in the process. Ideally, this would be a co-creation process in which the lecturers can also give feedback and there is room for an open dialogue.

On two occasions, at the ATEE winter conference 2018 and during a meeting of the research group on sustainable talent development within THUAS, lectures and teacher trainers were asked to contribute to solutions based on the research results described above. After a short presentation about the results, four 'point of views' were presented based on the research that could be brainstormed by those present. The goal of a 'point of view' is to highlight some of the results from the 'empathy phase' of design thinking in a stimulating way in order to get the creative process going.

The four 'point of views' where:

1. Lecturers have to cross a threshold but 'now is not the time..'
2. Somebody has to start but nobody can do it alone...
3. To get to the positive feelings (to feel competent) lecturers seem to have to work through negative feelings first…
4. In hindsight pressure was good. But don't push me!

The attendees were asked to generate as many ideas as possible and to write them on post-its. After a write and pause, the post-its were collected and grouped by the attendees. In this way ideas that joined together were put together on a sheet of paper. Here the attendees could add a few things to further shape or elaborate the idea.

After the two meetings, all generated ideas were inventoried and grouped.
The ideas of the attendees can be divided into the following themes:

- institutional policy; involve the management level; involve students
- digital platform and technology; facilitation; support; teacher training / start small
- share best practices; do it together
- make room for emotions and making mistakes; pressure and motivation

It would not do justice to the input from both the conversations with the lecturers and the ideas put forward during the follow-up meetings to insinuate that there is a single solution for the situation outlined. This research offers countless leads to align policy and practice. A successful approach would focus on several aspects described above and on several stakeholders within THUAS.
In addition to the feedback and cooperation with the lecturers, theoretical insights can help to provide a basis for the approach (as the focus has been on the lecturers' perspectives theoretical insights have been underrepresented in this chapter). Van Leeuwen et al (2016) give suggestions on how the frame creation method could help combine insights from different perspectives (from both above mentioned in situ research and scientific literature and philosophy, arts and culture personal experiences) on the themes mentioned above.
The implementation process will then be one of trial and error. Insights from this study seem applicable in a 'practice what you preach' kind of way. It is important to be able to make mistakes during this process and to learn from them. The need for connectedness found within the study also applies to the next steps of this process. It seems vital to involve stakeholders at different levels within the university. In the words of one interviewed lecturer: "What you can do and think of on your one is limited. " (Respondent 1, personal communication, 31 October 2017).

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5. Learning Landscapes, a Breeding Ground for Sustainable Educational Innovation

Experiences of Teachers Working in a Context that Aims to Support Innovative Behaviour

Karin Potting, Lonneke Frie, and Frans Jacobs

The HRM study program of The Hague University of Applied Sciences (THUAS) recently replaced classical, module-based education by so-called learning landscapes in which students approach complex problems by interdisciplinary learning activities. Teachers collaborate in multi-disciplinary teams that have a shared responsibility to support students as well as to innovate their education. This new way of organizing educational processes not only need to strengthen the learning ability and flexibility of students, but also the learning and innovation ability of teachers. Our exploratory research among teachers showed that this new way of working increased their job satisfaction. However, teachers experience difficulties in implementing their ideas, which is an important precondition for sustainable educational innovation.

Sustainable educational innovation requires innovative behaviour of teachers

To anticipate changes in societal and organizational needs, universities of applied sciences need to have educational processes in place in favor of innovation that can be changed rapidly without excessive costs (WRR, 2013; The Netherlands Scientific Council for Government Policy). Since the publication of the report by the Dutch parliamentary research committee on educational innovation (Commissie Dijsselbloem, 2008) policy makers in the Netherlands are increasingly convinced that teachers play a crucial role in the realisation of successful innovations (Coppoolse, Zitter, Smid, & de Bruijn, 2014; Dochy, Berghmans, Koenen, & Segers, 2016; Geijssel, Sleegers, van den Berg, & Kelchtermans, 2001; Verbiest, 2014). This line of thinking however is not new and not unique for education either. In the twentieth century, Weber (1972) already acknowledged that shop floor employees in large, complex and bureaucratic firms are typically the ones who best perceive which innovations are required and how they could be realized. In the current twenty-first century, Weber's line of thinking is still topical

When citing in APA, please refer as follows:

Potting, C., Frie, L., & Jacobs, F. (2018). Learning landscapes, a breeding ground for sustainable educational innovation: Experiences of teachers working in a context that aims to support innovative behaviour. In F. Jacobs, & E. Sjoer (Eds.), *Inspired to change: A kaleidoscope of transitions in higher education.* The Hague, The Netherlands: The Hague University of Applied Sciences.

(Wihlman, Hoppe, Wihlman, & Sandmark, 2014). The innovative behaviour of employees is still perceived as important, or even of utmost importance, for the success of organizations (e.g. Amabile, 1988; Amabile & Gryskiewizc, 1989; Anderson, Potoẽnik, & Zhou, 2014).

Even though multiple definitions exist for innovative behaviour, there is consensus among researchers that innovation starts with a useful idea that is put into practice. Kanter (1988) describes this process as the "generation, adoption, implementation, and incorporation of new ideas" associated with different job roles. In a similar way, other researchers (e.g. Axtell et al, 2000; Frie, Potting, Sjoer, & Van der Heijden, submitted; Scott & Bruce, 1994) who partly build upon Kanter's theory, point out that innovative behaviour not only involves the development of new ideas, but moreover the activities to implement these ideas. However, these researchers point out that each individual has a certain responsibility in making sure that their ideas are realized. Jansen (2000, p. 288) used the term Innovative Work Behaviour (IWB) defined as "the intentional creation, introduction, and application of new ideas within a work role, group or organization". This is typically an iterative process not necessarily with a specific order of activities.

Working context influences innovative behaviour

There are not just personal factors that influence innovative behaviour (Baum, Frese, & Baron, 2007), but also organizational culture and the way work is organized and assigned (West & Farr, 1989). Some researchers assume that personal factors, such as problem-solving abilities (De Jong & Den Hartog, 2010), impacts on idea generation, whereas characteristics of the organization merely influence the possibility of implementing these ideas.

Kanter (1988) has been one of the first to describe the organizational features that enhance and support innovative behaviour. He assumes that during the phase of idea generation employees feel the urge to come up with new ideas. In this phase, it is important that the employee has good relationships with those people who can benefit from the employee's ideas (Van de Ven, 1986). This requires a culture in which innovation is perceived as important, such as acknowledging the importance of connecting ideas from different disciplines. The latter is associated with problem solving ability that helps to generate ideas (Runco & Chand, 1994; Scott & Bruce, 1994; Basadur, 2004).

For the implementation of ideas, following Kanter (1988), it is important that employees have access to three types of so-called markets: knowledge, resources and political support. Kanter calls these *power tools*. Knowledge helps employees to enhance their problem-solving ability by the way they can enrich and work out their ideas. Resources, such as space, time and funds, are needed to translate ideas into concrete plans.

Political support is required to create the buy-in needed to put ideas into practice. Kanter argues that organizations need to be organized in such a way that employees have easy access to these power tools. In general, complex work and a certain degree of autonomy seem to have a positive influence on innovative behaviour. This effect is strengthened if employees feel rewarded and are given the recognition from management and/or colleagues (Janssen 2000; Scott & Bruce 1994; Wihlman, Hoppe, Wihlman, & Sandmark, 2014).

Unfortunately, we do not have a blueprint for organizations that enable access to these power tools. Researchers seem to be convinced that having access to and participating in a variety of networks of internal and external partners are not only helpful in generating ideas, but can also support the implementation. In addition, it is important that management helps employees to make use of sources for generating ideas, and that they make sure that current regulations and procedures do not delimit the implementation of new ideas. As mentioned before, autonomy and multidisciplinary teams can be important as well (De Jong & Den Hartog, 2010; Kanter, 1988; Shane, 2003), although Hensel (2010) found out that working in autonomous and multidisciplinary teams not necessarily guarantees that employees will display innovative work behaviour. It also requires teams to have a shared vision, that they make use of common language, and experience the working context as supportive (see also the chapter of Hensel and Visser in this book).

In the following case study, we will illustrate how teachers experience a working context in which the aforementioned insights were incorporated to stimulate innovative behaviour.

The study programme HRM: a case study

Since 2015, teachers of the study programme HRM have been redesigning and implementing the curriculum thoroughly in multidisciplinary teams following an iterative process by which they developed so-called learning landscapes. Following Kanter's reasoning, multidisciplinary teams are supposed to support the teachers' innovative behaviour. Based on the previously described insights, three design principles for multidisciplinary teams were distilled that should support innovative work behaviour:

1. Teams have direct access to sources that could stimulate idea generation
The teachers are in close contact with the practice to gather practice assignments. In this way, they are inspired by the developments within specific practices on top of their understanding of the students' needs. By combining multiple disciplines within each team, teachers have the opportunity of learning from each other. Throughout this process, teams are responsible for the development and the delivery of new learning around a preselected theme.

2. Teams can influence to a certain extent procedures in support of the innovation process

By means of an iterative process, teams develop an educational vision in close collaboration with the management. This vision is further developed throughout the execution and continuous renewal of the different learning landscapes. For example, teachers defined new guiding principles for examination, practice oriented research and internationalisation. In this way, the educational vision and its related policies can strengthen the innovation process.

At operational level, teachers have possibilities to make use of resources for the implementation of their ideas. For example, teams can arrange important features of the digital learning environment by making use of available IT tools, such as learning management systems and grading systems.[1] The team also has the responsibility to plan educational activities for students. In this way, they can use existing systems and procedures and adapt them if needed.

3. Teams have access to power tools to put ideas into practice

Teachers receive, if they wish, support from external experts who offer trainings and workshops, for example. In addition, teachers are offered the opportunity to join networks of practitioners who could be helpful in the development and delivery of education. In addition, they can influence their available time and space. Every team member is assigned a fixed number of work hours to deliver in a learning landscape. After the alignment with the other team members, a teacher is free to decide how many hours he or she will be spending on development, planning and execution. Furthermore, the management provides political support and explicitly invites teachers to raise new ideas. The management facilitates and supports as much as possible by means of granting sufficient hours, physical space, and (financial) resources. Successes are celebrated regularly. By this, a context was created aiming to support innovative behaviour.

In our case study, our main research question was: Does this new working context support teachers in displaying innovative behaviour? Specifically, do they experience that access to the aforementioned resources helps them to renew their education? Do they feel invited and supported in generating and implementing new ideas?

1 Blackboard, Osiris and On Stage are examples of IT tools that were used.

Research method

Online survey

We asked 31 teachers for their opinions on the basis of a series of statements using of an online survey tool. We formulated these items based on the aforementioned studies on innovation processes of professionals. Per process we will describe the type of statements that we provided.

Generation of ideas

We investigated which types of sources were used to generate ideas by statements such as: 'By making connections between different disciplines, I generate ideas for educational innovation', 'The needs and frustrations of students are a source of ideas to renew our education', and 'The needs of the occupational practice are a source of ideas to renew our education'.

Adoption of ideas

The study of Frie et al. (submitted) not only provided illustrations of the activities that professionals undertake to generate ideas, but also the considerations to decide if an idea is worth further exploration or implementation. Kanter (1988) labelled this as the adoption phase. We used such statements as the following to capture the considerations for adopting an idea: 'I go for a new idea if it fits the needs of the occupational practice', and 'I go for an idea if it fits the needs of the students'.

Implementation of ideas

We asked if the teachers had access to knowledge and skills in support of putting their ideas into practice with statements such as: 'I actively keep my knowledge of didactics up-to-date', and 'I actively approach colleagues or people in my network who have complementary expertise or skills'.

We explored if the teachers had the opinion to have access to the aforementioned power tools by statements such as: 'I have sufficient time available to develop new things for our educational innovation', and 'I make sure we have financial resources that facilitate us in the realisation of the educational innovation'. Whether teachers actively look for political support was checked with the following statement: 'I make sure that there is buy-in for my own or the team's ideas'.

Incorporation of ideas

We asked the teachers if they perceived themselves as actively integrating new ideas into existing processes with statements such as: 'I make sure that tasks are properly assigned among colleagues', 'I make sure we have a clear planning for the work to be done', and 'I make sure that innovations are incorporated into existing processes and systems'.

Experience of new working context
In the online survey, we also asked as to what extent the teachers perceived to have possibilities for innovation given the assumption of both Kanter (1988) and Hensel (2010) that a positive view about the possibilities supports the innovation process. We asked the teachers to respond to the following statements: 'Through the educational innovation I am capable of incorporating the necessary innovations in our education', 'The educational innovation enables me to fully use by talents and subject matter knowledge', and 'The educational innovation positively contributes to my job satisfaction'.

Storyboard
To enrich our picture of the strategies that teachers use to put an idea into practice, we asked each teacher during a follow-up session with the team to draw a storyboard on the process from gaining an idea until the final moment by it is incorporated. They were asked to indicate moments in their storyboard that they perceived as critical for the successful implementation of their idea. This storyboard had to describe an innovation that was realized during the past half year.

Results

In this paragraph we will review the results, starting with the summary of the feedback that was collected by the online survey, followed by the analysis of the storyboards.

Results online survey
Twenty-five of the 31 teachers responded to the online survey. Their feedback is summarized per process below, followed by how they experience their working context. We report on the percentages of positive, negative and neutral responses on the statements. If percentages did not count up to 100%, respondents did not provide an answer to this statement or reported that this statement did not apply to them.

Generation of ideas
Most of the respondents (88%) subscribe to the statement that they have many ideas to renew the education. They make use of multiple sources to generate ideas: the needs of students (91%), the occupational practice (75%), colleagues (66%) or the possibilities of digital tools (63%). Almost all respondents (92%) perceive brainstorming with colleagues as an important activity to generate ideas, and 78% perceive that connecting disciplines is a means to generate ideas.

Adoption of ideas
More than half of the respondents (54%) report to focus on a limited number of ideas to renew the education. They perceive it important that the idea fits the needs of students (96%) and the occupational practice (96%). Furthermore, 70% perceive the importance that the management supports the idea, and 63% check if there is sufficient evidence available for the idea.

Three-quarters of the respondents indicate that the idea should fit their personal areas of interest. For 34% of the respondents it is important that the idea fits their current knowledge and skills. Three-quarters of the respondents want to invest in an idea if it allows them to learn. The opinions seem to differ with regards to the need of having an impact: 48% subscribe to the statement that the idea should have impact, whereas another 39% disagree with this statement.

Implementation of ideas
Most of the respondents (67%) subscribe to the statement that he or she is actively gaining new knowledge regarding didactics or digital possibilities. Another 79% report to actively keeping their specific area of expertise up-to-date. The same percentage of respondents report to actively approaching colleagues and people within their network who possess knowledge they don't have, and 52% actively keep track of developments in the occupational practice.

We see a variety of responses regarding the extent to which they seek additional resources. Thirty-three percent perceive to have sufficient time to develop new things, 38% disagree and 24% have a neutral standpoint. A similar distribution could be seen regarding activities to generate financial resources. Around 33% say they to do this, 25% do not and another 25% have a neutral position regarding this statement. Sixty-fiver percent subscribe to the statement that they seek buy-in for their ideas and another 25% have a neutral opinion regarding this statement.

Incorporation of ideas
With regards to statements addressing the way ideas are incorporated, a relatively high number of respondents have a neutral opinion. Thirty-seven percent have a neutral opinion regarding the statement if they worked according to a clear planning. Another 43% are neutral regarding the statement to make sure that tasks are assigned among colleagues, and 53% hold a neutral position regarding the statement of securing that innovations were embedded in existing processes and systems.

Experience of new working context
Most of the respondents (75%) subscribe to the statement that their working context helps them to incorporate the required innovation in the study program, and 83% report that the educational innovation contributed to the 'fun at work'. Also, the role of the manager is evaluated positively by 88%. Finally, 91% report to experience sufficient freedom to craft the education according to their own insights.

Type of activity	Number of teachers who mention this activity in the storyboard (N)	*Critical moments that could be a barrier for implementing the idea*
Creating ambassadors; making others enthusiastic, seeking allies, creating buy-in	12	Not the right momentum to pitch the idea.
Experimenting	8	No support from colleagues with whom the teacher will execute the idea. No shared view on how the program will be executed.
Brainstorming with colleagues	7	
Increasing knowledge by (scientific) literature study and online search engines.	4	No evidence found for idea in (scientific) literature.

Table 1: Activities mentioned in storyboards and the accompanying critical moments

Results story boards
Eighteen of the 31 teachers created a storyboard. Table 1 summarizes the activities derived from the storyboards and the critical moments related to these activities. They reported how they were taking actions to get support for their idea, how they were experimenting to test, improve and make their idea visible, how they involved their colleagues by brainstorming, and how they increased their knowledge relevant for their idea. Specifically, regarding creating buy-in, one respondent gave the following suggestion that one needs to choose the right moment to pitch an idea, although the storyboard was not explicit about what makes a moment the right one: "You have to promote your idea among colleagues at the right moment. I was already working on the idea, while others were focusing on other things". The storyboards show that activities are not necessarily conducted in a specific order, but rather seem to be a more iterative process. In one storyboard, we could read that creating a certain feeling

of pressure seems to contribute to success: "Once we have an idea, for example after a brainstorming session, one has to directly detail the output, sparring with a couple of people, and then make it work (write a report, organize resources, inform the education committee, etc.)". Keeping the energy, and having passion and fun seemed to be important ingredients for the successful implementation of an idea as well.

Preliminary conclusions and discussion

In our research we addressed the question whether the new working context of teachers supported innovation. The organizational structure as described in this case study is characterized by a high degree of autonomy for the teachers who collaborate in multidisciplinary teams, in which the management rewards innovative behaviour and facilitates where possible. Given the fact that this context incorporates a high number of elements that are known to facilitate innovation, the assumption was that teachers would experience that this context was supporting them to innovate. We evaluated whether this was indeed the case in their educational innovation.

Our research shows that in general teachers positively evaluate the new working context. They experience the renewal process to contribute to their job satisfaction and feel supported by the management. A large majority of the teachers, partly as a result of this new working context, do have many ideas to renew the education. Even though they use multiple sources to generate ideas, they are mainly inspired by the needs of students and the occupational practice. Especially by sharing their ideas with others, they enrich their ideas. For the implementation of their ideas they specifically focus on creating buy-in, mentioned in two-thirds of the storyboards, with activities such as seeking allies, communicating the idea to others and 'drinking lots of coffee'.
In addition, experiments help to make their ideas more visible.

However, the opinions are less uniform regarding what can be done to make sure that the innovation process does not stop after the experiment has been worked out. It seems that for the incorporation of ideas it is crucial that teachers know how to influence their context. In this regard, teachers differ to the extent by which they influence elements of their working context to make sure that experiments finally will be embedded in the educational practice, such as finding time for development, getting access to financial resources, and aligning with existing processes.

Not all teachers seem to be convinced that they need to play an active role regarding the organization of work processes that are required to realize ideas. Perhaps they might perceive this as less inspiring or not as their area of responsibility. For decades, the alignment of activities and arranging financial resources have primarily been the role of coordinators or managers. For that reason, Kanter (1988) purposely incorporated in

his model different roles that need to be fulfilled if organizations strive to successfully implement their ideas. In the nineties, organizations seemed to be conveniently organized to allow for dedicated coordinating roles. Nowadays, organizations are becoming more complex and require more agility to respond quickly towards new developments. The current view is that every professional can do these coordination activities, eventually supported by digital tools. McKinsey (2017) states that in the near future it is likely that each worker needs to be able to possess these types of management skills. In this view, 'teachers of the future' not only need to be good in the execution of their daily educational activities, but also be able to generate ideas by which they anticipate new developments and be able to implement these ideas. This requires them to continuously broaden their expertise and develop new areas of expertise which can be applied in new contexts. Van der Heijden (1998) coined the term 'flexperts' for those professionals who are highly capable of this flexibility. Frie et al. (submitted) put forward the idea that these flexperts are capable of influencing their context in order to realize their ideas. This enables them to continuously learn. This flexibility strengthens the organization's ability to successfully innovate, contribute to the sustainable employability of professionals as well (De Vos & Van der Heijden, 2017). Anticipating for their sustainable employability is something that students will have to learn. Ideally, all teachers will be capable of this flexibility and thus lead by example. Future research should focus on the question if this is an ability that everybody could learn.

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6. Building Connections for Success

Essential Elements for Creating a Learning Environment for Delayed and Long-term Students

Hester Brauer

"You feel a kind of stigma 'such a typical delayer', 'we need to see if you are even able to make it'. No one will guide you; you have to figure it out for yourself, because you are a delayed student. You didn't do what you had to do, because otherwise you wouldn't be here," said Sara (a student Social Work).

Sara is one of the students at The Hague University of Applied Sciences (THUAS) who is stagnating in the final phase of her study, and consequently in the development of her personal ambitions. She is one of the 50.9% of students in higher professional education who won't succeed in graduating within five years (Vereniging van Hogescholen, 2016).

Even after successfully obtaining their first-year foundation degree, many students struggle with the bachelor thesis as a large obstacle in completing their studies. A possible explanation can be found in the fact that bachelor studies have set higher requirements at the final level which students need to achieve. These higher requirements pertain to the increments in the accreditation system and increase the focus on research skills, eventually having an impact on the study-success of students (Vereniging van Hogescholen, 2016). The graduation process is the first long-term and independent complex project that students work on. Many lack sufficient research and writing skills to easily accomplish this task (Gellevij, Mittendorff, Faber, Huizinga, Staman, Truijen, Brands, & Bisschop, 2015). The process also requires capacities for a high level of abstraction, language skills and perseverance (Brauer (2018), to be submitted).

Stagnation bears a heavy impact on the student's position within the educational system and on his/her performance. Some students even lose their ambitions, and feelings of self-efficacy can decrease and those of shame and guilt increase. Students remark that their social connections are being broken down and they often feel powerless and lonely. Therefore, study success and talent development of young and upcoming professionals come to a standstill (Brauer, 2018 - to be submitted). Often this concerns students from lower socio-economic classes with a migration background, and/or students from vocational training education (MBO) (Wolff, 2013).

When citing in APA, please refer as follows:

Brauer, H. (2018) Building connections for success: Essential elements for creating a learning environment for delayed and long-term students. In F. Jacobs, & E. Sjoer (Eds.), *Inspired to change: A kaleidoscope of transitions in higher education.* The Hague, The Netherlands: The Hague University of Applied Sciences.

To contribute to the emancipatory character of higher education, THUAS has a high interest in new opportunities and the exploration of possibilities to improve study success (De Haagse Hogeschool, 2015). In 2017, the Research Group Sustainable Talent Development and platform Connected Learning (supported by the Comenius Fellowship) started a learning network called Favourable graduation: Design, Discover, Unfold' ('Kansrijk afstuderen: Ontwerpen, Ontdekken, Ontvouwen'). The goal of the learning network was to create a shared mental model with building blocks for an enticing and activating environment for delayed students.

In the following section we take a deeper look into the results of the learning network. The central question is:

According to the learning network, which elements are essential for an inspiring environment to activate delayers and long-term students?

Method

The learning network was launched after a presentation about the PowerHouse on November 3rd, 2016. The PowerHouse is a graduation community for long-term students within the Department of Social Work and Education (SWE) at THUAS. Inspired by the vision of the PowerHouse, an urgent need emerged among the audience to share knowledge and innovation to empower long-term students. The learning network consists of lecturers, coordinators, deans, and instructional pedagogues of a great variety of educational programmes within THUAS, and in addition one long-term student from the Department SWE. In total some 25 professionals, have worked in three stages in alternating combinations on a design to activate delayed students in the final phase of their studies. The designing process contained the following steps:

Phase 1. 'Discover' was marked by analysing and exploring barriers that lead to study delay and the drop-out of students. At the same time the possibilities to overcome limitations were addressed. This exchange of knowledge was based on experiences, prior research, relevant literature and current educational programmes.
Phase 2. 'Design' focused on establishing the building blocks for a programme for delayers and long-term students. With a method for visionary development and innovation called Lego Serious Play, participants engaged in a brainstorming session on the elements that are crucial to activate students. During this meeting the exchange of perspectives and the development of a shared language were central. Based on the stories and mutual values, a shared mental model was built.
Phase 3. 'Unfold' pertained to the visualisation of the identified elements in a model (see Figure 1). The last meetings existed of interpreting, thermalizing and visualizing the outcomes of the Lego Serious Play sessions.

As the researcher I was both participant and observer (Gold, 1958) in the learning network. I participated in the preparation and execution of the meetings and observed the ideas of the participants from the learning network. Adler and Adler (1994) refer to this research role within observation as 'complete membership'. I studied the dialogues within the learning network with observation techniques.
By means of observation notes and audio-visual registration of dialogues, I gathered and analysed the thoughts of the participants. After my first analysis, I presented a concept-model to a number of participants from the network and processed the resulting reflections and additions to the model. Newer versions of the model were then presented four experts on the field of education development. Based on their suggestions I completed the model and substantiated with additional literature research.

Results

The described process resulted in a model in which the building blocks for a favourable environment for graduating students can be seen in Figure 1. The building blocks are not exclusive categories, but rather a rich description of ingredients that are useful for bridging the resulting gaps. The model contains four building blocks that, according to participants, are essential: 1) community values, 2) collaborative learning, 3) support, and 4) organisation. Every element shall be explained below.

Community values
a. learning with and from each other
b. faith and trust
c. growth and future oriented
d. ambition and strength
e. high expectations

Collaborative learning
a. encouraging social connections
b. groups with shared goals and urgencies
c. connected through physical and digital environment
d. mechanisms of sharing from knowledge and resources
e. diversity of expertise in (sub)group
f. pleasant atmosphere
g. reciprocity

Support
a. extra attention to increase of skills
b. quick and clear feedback
c. re-inventing personal and professional identity
d. stimulate positive self-image
e. motivational skills
f. use of role models

Organization
a. clear and findable information
b. visible and accessible contact persons
c. structured phasing of learning process
d. transparency in assessment and learning activities
e. calibration sessions among teachers

Figure 1. Building blocks of a learning environment for long-term students

Building block 1: Community values

An important outcome of the network is that the learning process of long-term students needs to occur within a learning community. A characteristic of learning communities is the creation of a mini-culture with its own values, routines, rituals, symbols, stories and history (Wenger, 1998). An education system can co-create and influence such a mini-culture.

What is intended is a graduation learning community with a mini-culture, where learning is not only an individual process but also a collective process, and where students and lecturers can pursue shared goals and collaborate in varying compositions and expertise. Through this collaboration between members in the group, one (a) *learns with and from each other* and the opportunity to develop both personally and professionally arises (Lave & Wenger, 1991).

Another important value is the (b) *faith and trust* that each participating student is competent enough to achieve the final goal. Delayed and long-term students may lack confidence in their own abilities, which is often boosted by stigmas from the environment. Sara (student) gives an example of a statement from a teacher: "We need to see if you are even able to make it." Students within the learning community must be able to break free from these (self) stigmas. Sofia (teacher and participant in the learning network) regards the process of reframing the self as a significant role for the lecturer. According to her, the lecturer has to persuade the student that they 'have a good foundation' and they can 'just do it'. Skinner, Chi, and The Learning-Gardens Educational Assessment Group (2012) endorse that the sense of competence contributes to the performance of a student.

To strengthen this sense of competence, it is important that attention be paid to the value (c) *growth and future oriented*. The mindset within that mini-culture should focus on the conviction that you can develop capacities (growth mindset) and not be based on the belief that the lack of success is due to a lack of talent and capacities (Yeager & Dweck, 2012).

In this development-oriented approach, it is important that the personal (d) *ambitions and strengths* of the student are the starting point, and (e) *high expectations* are being expressed towards the student and regarding the mutual collaboration. Research indicates that high expectations have a positive impact on student achievement (Rosenthal & Jacobson, 1968; Tinto, 2012; Chickering & Gamson, 1987).

The risk with delayed students is that expectations may be adjusted downwards and thus lowered. The participants of the learning network Favourable Graduation ('Kansrijk Afstuderen') think that for this group in particular it is very important to express high expectations regarding the final level to be attained and the commitment of each student to their personal and collective learning process.

It is also important that participants within the education system echo these values in their actions, language use, rituals and symbols. The language use of teachers must be imbued with words that convey 'faith and trust in the student'. Symbols that are used within the community should express 'ambition and strength' and they can make use of 'rites of passage' as a means to make interim success ('the growth') visible. At the PowerHouse, the symbol of the fist is used as a sign of strength. Each lecture starts with this symbol, after which a story is told about the individual and collective progression on the way to achieve the common goal. The lectures conclude with the slogan that graduation is a joint experience. This expresses the importance of learning with and from each other. As a rite of passage, passing the test for the research design (partial exam) is celebrated in the collective meetings and within the digital learning environment. These are examples of how the central values in the community are underlined by the language use, rituals and symbols. It is a way of acting that strengthens a positive learning culture.

Building block 2: Collaborative learning

Within the intended learning community, learning starts by reconnecting and (a) *enforcing social connections*. Hayat (participating student in the learning network) says: "A long-term student no longer has contact with his fellow students because they've graduated and started work or because of other reasons." When delayed and long-term students lose their connection with the study programme and fellow students, it is important that the learning environment stimulates the emergence of (re)new(ed) relationships (Tinto, 1998; Kappe, 2017). Ryan and Deci (2000) emphasise that the experience of social connections with members of the education system and fellow students contributes to motivation, leading to learning and performance.

These new social connections must be a starting point for collaborative learning. Collaborative learning helps students refine their knowledge, share ideas and perspectives, learn to 'use' fellow students as resources, develop an appreciation for multiple perspectives, and be more willing to tackle complex, poorly structured problems (Dunlap & Grabinger, 2003). It is up to the education system to create an environment where this collaboration between long-term students is promoted.

To activate collaborative learning between delayed and long-term students it is important that student (b) *groups have shared goals and urgencies*. Shared goals reinforce the need to participate in the activities of the group (Wilson, Ludwig-Hardman,

Thornam, & Dunlap, 2004). In composing and activating groups, it is important to pay attention to this aspect. Collaborative learning is also encouraged when participants are (c) *connected through a physical (and possibly also digital) environment* (Johnson & Johnson, 2009).

In the learning community, (d) *mechanisms* must be introduced and used *to share knowledge and resources*. By realizing an active exchange of resources and knowledge, the community can solve individual questions, obstacles and dilemmas of delayed and long-term students through collective knowledge (Bielaczyz & Collins, 1999). Such a learning culture ensures that not only the individual lecturer with his or her knowledge and feedback adds value to the learning process, but that the capital of all those present in the community is available to everyone and becomes of value. This value is further increased if there is (e) *diversity of expertise* among the members of the subgroups and of the learning community (Bielaczyz & Collins, 1999).
To foster collaboration, attention to a (f) *pleasant atmosphere* is important. Nicole (Coordinator of delayed students and participant in the learning network) says: "I see an education programme as a house where it is warm and cosy." Experiencing warmth, trust and fun in a learning environment is an essential mechanism for creating a safe and stimulating environment in which students come to learn and collaborate (in creative processes) (Ehlen, 2015).

Lecturers in this learning network are expected to secure (g) *reciprocity* in both attention and time between students (developing reciprocity). The lecturer is available to the student, as are the students for each other. The culture in the learning community requires a two-way process and thus has a reciprocal nature, whereby the members of the community can take on both the role of learner and teacher to their fellow members (Wilson, Ludwig-Hardman, Thornam, & Dunlap, 2004).

Building block 3: Support

Lecturers are expected to get the learning process of delayed and long-term students moving again. Attention should be paid to (a) *increasing skills* to eliminate deficiencies, for example, writing and research skills, and it demands (b) *quick and clear feedback* on the performance and development of the student (Chickering & Gamson, 1987).

Attention must also be paid to (c) *re-inventing personal and professional identity*, so that students experience meaning in the educational tasks they carry out. Neda (participant in the learning network) mentions the importance that students should first assess 'Who am I' and 'What do I believe in' before they are able to overcome barriers. Many delayers lose their personal affinity with the subject of the bachelor thesis.

When the assignment is not in line with their ambitions, it is necessary to reinvent the meaning of education for students (Kappe, 2017). It is the role of the lecture to offer new perspectives in this.

To encourage students in realizing their objectives, it is important that their (d) *positive self-image* is built up. Due to negative experiences with graduation, many students have lost their hope and confidence in accomplishing their final goal. In supervising such a group of students, one will have to focus on increasing hope, optimism, resilience and self-confidence. These concepts, also called psychological capital, all contribute to a better performance (Luthans, Luthans, & Luthans, 2004).

The aforementioned support requires the lecturers to have (e) *motivational skills* consisting of: 'activating, confronting, motivating, stimulating and provoking to actually get students over the experienced (mental) barriers' (Arianne, participant of learning network). In the motivation process of students supply and inspiration by (f) *role models* is indispensable. Role models can be members from inside or outside the community who offer inspiration on the content or the process. It is known that the greater the psychological closeness and resemblance of the role model, the greater the effect on the development of self-confidence (Lockwood & Kunda, 1997; Luthans, Luthans, & Luthans, 2004).

Building block 4: Organisation

When delayed students end up outside of the regular process, they notice that they have to find new pathways within the existing structures. They experience the educational curriculum changes, and that programmes have lapsed and lecturers are no longer connected to the subjects they have followed. Students experience stumbling blocks around obtaining clear information and the availability of people who may guide them in the development of new routes. Sara articulates this by saying: "Nobody takes you actively by the hand, you just find it out for yourself that you're a delayed student." As a solution to this, a participant in the learning network Marianne states: "It is important that the whole faculty team is available for the student. Not only the lecturers, but also the support services. There are a lot of wheels and rods that make this process possible. If one wheel falters, it becomes more difficult to achieve the final goal. Actually, there should be icebreakers everywhere."
Characteristics that are mentioned include the importance of (a) *clear and findable information* on the routes to be followed in order to resume the studies, and (b) *visible and accessible contact persons* who can support the student in the process. It requires a (c) *structured phasing of the learning process*. The amount of work to be done and the extra procedures can scare off students in restarting the learning activities.

Once the graduation process has started, there must be consensus within the team of lecturers on the quality requirements, frameworks and deadlines. Students experience that such requirements differ from lecturer to lecturer. It requires a form of organisation in which lecturers can be (d) *transparent* in their assessments about the quality requirements they set, and be concrete about the steps a student should take to achieve the final level. To have a shared vision, (e) *calibration sessions among teachers* are necessary. These are meetings in which lecturers align the substantive requirements that are set for the work of students and where lecturers determine whether the assessment indicators are applied in a comparable manner. This alignment should prevent students from stagnating because of differences in vision among grading supervisors and assessors.

Conclusion

For delayed and long-term students, the education process is often a lonely journey. The main conclusion of this research is that learning should not be an individual process of the student connected to one lecturer, but rather a community where learning is a collective journey. The social interaction between lecturers, groups of delayed students and other actors is an important engine for arriving at the new knowledge, insights and expertise that are important to reach their final level. This calls for the design of social structures and the collaboration mechanism that enable the bonding of all members in the community. By making use of this added value, new opportunities for the individual are created that can lead to study success.

Another important conclusion is that in the design and development of learning communities, sufficient attention must be paid to cultural characteristics. Students who delay are faced with a loss of self-efficacy and feelings of shame and guilt. A learning community for delayed students requires a culture in which students can turn this experience into an experience of self-confidence, hope and optimism. This requires that the education system pays attention to language use, symbols and rituals to realise this turn.

The model 'Building blocks of a learning environment for long-term students' contains elements that contribute to the study success of delayed and long-term students. It is the challenge for every education programme to use it in an appropriate way within its own educational context. Each department will have to explore for themselves how these elements can be translated into the actions, language, symbols and rituals that are suitable for their own target group.

Thanks to the participants of the learning network and in particular to Wâtte Zijlstra as moderator and co-organiser of the learning network.

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7. The Quest for the Holy Grail of Effective Collaborative Learning

How to Turn Group Work into a Learning Situation

Miranda de Hei

Collaborative learning for students and professionals

Think back to the last time you learned something new. There is a good chance that the situation in which you learned this was during a discussion with friends, working with colleagues or going out with family members. In another situation you may have learned something individually, which you discussed or shared with other people later on and thereby contributed to their learning. What we learn and teach to others contributes and influences who we are.

Professionals often learn in similar ways to private individuals. Contemporary professional development programmes do not solely focus on taking formal courses to help employees stay up to date in their area of expertise; more and more initiatives regarding learning communities and professional networks have been formed to support professional development. In higher education, collaborative learning is implemented on a regular basis in curricula to contribute to higher learning outcomes. The outcomes of collaborative learning in educational settings are described as contributing to deep learning, motivation, shared knowledge construction, the development of higher order thinking skills, metacognitive skills and prosocial behaviour (De Hei, 2016). Furthermore, collaborative learning can prepare students for learning and working in teams in their future work. It also can be an initiation for the professional development of students.

Despite this favourable description, these possible outcomes are not always attained. In some groups participants may stimulate and support one another, work hard, and harmonise their efforts to contribute to the group process with the efforts of other participants. In other groups, participants may not get along, they may not perform a behaviour that leads to effective collaboration, and maybe even appear to be doing as little as possible. With my research I aim to contribute to insights into how we can implement collaborative learning in such a way that it is effective and worthwhile for the participants.

When citing in APA, please refer as follows:

De Hei, M. (2018). The quest for the holy grail of effective collaborative learning: How to turn group work into a learning situation. In F. Jacobs, & E. Sjoer (Eds.), *Inspired to change: A kaleidoscope of transitions in higher education.* The Hague, The Netherlands: The Hague University of Applied Sciences.

The design of collaborative learning for students

For my PhD I did four studies. The results of my first study (De Hei, Strijbos, Sjoer, & Admiraal, 2015) show that teachers in higher education consider the design of collaborative learning to be a complicated task. Frequently mentioned obstacles in attaining the learning goals were: problems with free-riding students, task division amongst students instead of in-depth interaction about learning content, and problems in how to assess the group work.
In order to find a way to support my fellow teachers with these difficulties, I reviewed scientific articles on group learning activities (GLAs). This resulted in a comprehensive framework that can be used by teachers as a tool to design collaborative learning (De Hei, Strijbos, Sjoer, & Admiraal, 2016). Eight components for the design of GLAs were extracted from literature: 1) interaction, 2) learning objectives and outcomes, 3) assessment, 4) task characteristics, 5) structuring the collaboration, 6) guidance, 7) group constellation, and 8) facilities. In Figure 1 you can find these components inserted in a design tool, the GLAID (group learning activities instructional design) framework.

Step 1 Analyse	**Determine fixed characteristics**: Student characteristics, Teachers' characteristics, Curriculum characteristics, Collaborative premise, Global goals		
Step 2 Design	**Interaction** *(declarative and procedural (domain) knowledge, social and metacognitive activities)*	**Learning objectives and outcomes** *(goal setting, content of learning)*	**Assessment** *(means, criteria)*
Step 3a Develop (didactics)	**Task characteristics** *(Kind of activities, phases/sequencing, duration/frequency of group meetings, performance control)*	**Structuring** *(A priori, during GLA, reflection and evaluation)*	**Guidance** *(executor, teachers' role, communication mode, duration and timing)*
Step 3b Develop (logistics)	**Group constellation** *(number of groups and group size, heterogeneous or homogeneous, group duration)*	**Facilities** (*learning resources, technology resources, space and time)*	
Step 4 Implement	Monitoring the instructional process		
Step 5 Evaluate	Evaluating the processes and outcomes		

Figure 1. The GLAID framework (De Hei, Strijbos, Sjoer, & Admiraal, 2016).*

Alignment
As you can see in the framework there is more to the design than just these eight components. Before starting to design group work, you first need to think of what is already there that cannot be influenced (step 1, analyse), such as the characteristics of the participants. For example, you need to know how much prior experience the participants have in collaborative learning, or what prior knowledge the participants have regarding the subject the group will be working on. You need to align the components of the design with these fixed characteristics. For example, if the participants are freshmen who have little experience in working in projects, you may choose to clearly structure the collaboration by assigning roles to the participants.
The components themselves also need to be aligned. Alignment of the components means that every decision taken in one component is related to decisions in all the other components.
An example of alignment between learning objectives and outcomes, assessment and group constellation is when one of the learning goals of the project is to relate knowledge about 'psychology of the adolescent' to 'social media use'. An appropriate assessment task then could be for students to research hot topics in social media and explain these hot topics using aspects of adolescent psychology. If a learning goal for students is to take different perspectives towards a topic, heterogenic groups are most suitable to attain this learning goal.
During the period that students work on the group assignment, the components and their alignment need to be monitored (step 4) to make necessary adjustments during the course, and to evaluate the design when the group assignment is completed (step 5).

Design procedure
There are two ways to design your project or group assignment with the GLAID frame work: start from scratch, or start with an existing design in order to improve it.
When starting from scratch, I suggest that after establishing the fixed characteristics as in step 1 (such as the characteristics of the participating students, the teachers who are assigned to the task of guiding the GLA and the global goals), simultaneously design the components as in step 2 (interaction, learning objectives and outcomes, and assessment), considering the fixed characteristics of the learning environment of step 1. Next, again simultaneously, develop the didactics as in step 3a (task characteristics, structuring and guidance) and align them. Check whether your design is in line with step 2 and step 1. Finally, develop the logistics as in step 3b (group constellation and facilities), and again check whether this is aligned with the decisions taken in the earlier steps.

In the case of an existing project that you may wish to improve, I suggest starting with the component you regard as significant for this project or assignment. After reformulating the description, align the components from the same step with this description. Next, align components from the other steps with the redesigned ones. The last step is to check whether your decisions in all of the steps are congruent and aligned with the fixed characteristics of the learning environment, leading to a harmonious design of the project or group assignment.

Individual versus group learning

You may have the impression that I regard collaborative learning as the only, or by far most important, way of learning for students and professionals because of my arguments on the importance of collaborative learning. If so, please let me correct this misunderstanding. Individual learning and didactics aimed at the learning of individual students will, in my opinion, always play a significant role in students' and professionals' development. The extent to which this individual learning contributes to one's development will differ amongst individuals. In step 1 of the GLAID framework you can see that as a designer of group work, you need to take into account the 'collaborative premise'. Dennen and Hoadley (2013) state:

> The collaborative premise is the very reason for engaging students in a collaborative process and should be made clear to the learners who need to know why they are supposed to collaborate. The premise should clearly express what might emerge from their collaborative work, why their interdependence will be an important part of their learning process or their personal incentive structures, in describing in what ways they will be interdependent and how the very act of collaboration relates to the learning goals. If these things cannot be articulated to the learners than the collaborative promise is likely to be weak. (pp. 393)

In other words: if an assignment can be done equally well by working individually, then students should not be forced to work together. There needs to be a stringent urge to work and learn together. If this is not the case, then I strongly advise teachers to have students work on the task individually.

Teacher educators and the GLAID framework

After the development of the GLAID framework, I wanted to find out how the framework relates to the practice of educational designers. To this end, I interviewed teacher educators as experts on educational design (De Hei, Sjoer, Strijbos, & Admiraal, 2016). They were asked to describe their design practices without seeing the GLAID framework. It turned out that in their descriptions all eight components of the framework were touched upon. However, the facilities component was only mentioned

by some teacher educators. I am convinced that it is important to include this facilities component in the design of GLAs, because — no matter how well a GLA is designed — without the necessary space, time, technology, and support, students will not be able to attain the learning objectives of a GLA. For example: at one of the teacher education institutes, I spoke to students who were working on a group assignment at the same time as completing a much larger group assignment. The smaller assignment therefore did not gather as much attention. Additionally, during this period the student schedule contained full days of lectures with no time for interaction on the assignment. All the (class) rooms were reserved for lectures and meetings, leaving no quiet place for students to come together to work on the assignment. Because of a lack of facilities (time and space) the assignment did not lead to the attained learning outcomes. This example stresses the importance of the alignment of the components: if all of the design is harmonious except for only one component, the learning outcomes will not be achieved.

Student perception of collaborative learning

As a next step in my search for effective collaborative learning, more than 300 students in teacher education completed a questionnaire about what was perceived to contribute to their learning outcomes during collaborative learning (De Hei, Admiraal, Sjoer, & Strijbos, 2017). Students stated that they learned more when they perceived the collaborative task as positive and appropriate in attaining the learning goals. The same went for guidance: the positively evaluated guidance of teachers lead to more positive evaluations of the learning outcomes by students. Students also regarded group constellation — whether the size of the group and the characteristics of the group members are appropriate to perform the task — as important to the extent to which they were able to achieve learning objectives.

Another important finding of this study showed that the extent of engagement for the task highly determines how much the students learn. In other words: the more attractive a task is to students, the higher the engagement and the learning outcomes. Research literature describes several methods to enhance student engagement. Complex, authentic, and demanding tasks trigger student engagement (Dillenbourg, 2002). To enlarge the chance of effective group work, a task in which teams can build adequate shared mental models should be formulated. Interpersonal trust is a condition under which this is effectuated (Fransen, Kirschner, & Erkens, 2011). Finally, those tasks that elicit students to perceive autonomy and competence in completion of the task also contribute to higher effectiveness of collaborative learning (Boekaerts, & Minnaert, 2006).

Implications

In summarizing the research on collaborative learning, the quest for the holy grail of effective collaborative learning has not yet ended. The use of the GLAID framework tool for the design of collaborative learning in higher education may contribute to better aligned designs and hereby contribute to more effective collaborative learning. The GLAID framework may help monitor, evaluate and redesign projects and group assignments. We know that the perception of the quality of the task, and the extent to which students feel engaged, influences the perception of students of how much they learn from a GLA. However, perceptions alone are only an indication of what is learned. A next step is to study exactly what those learning outcomes are. This leads to a more difficult question: how can we measure the learning outcomes?

Measuring 'real' learning outcomes

Although a variety of research underlines the large potential of collaboration for learning outcomes, the exact learning outcomes of team learning can only be partly foretold. During collaborative learning students could partly achieve the same or similar learning outcomes, but as each individual learning internalizes what is learned from the collaborative learning by his/her given prior experiences and knowledge, the learning outcomes of collaborative learning are probabilistic (Strijbos, 2011), and therefore attaining specific learning outcomes is likely but not guaranteed. If learning outcomes are different per individual and are probabilistic, how can we measure those learning outcomes?

Wenger, Trayner, & De Laat (2011) regard the outcomes of learning communities as value creations that have an individual outcome and a group outcome. This value creation induced by collaborative learning consists, for example, of changed behaviour in the working environment as well as the production of useful products or artefacts. Tillema (2006) also describes that communities of inquiry can lead to the design of conceptual artefacts: products that are useful for a professional working environment. However, the use of collaborative learning alone is no guarantee for the knowledge productivity of a team. This leads to two new research questions: 1) could the GLAID framework be used, in an adapted way, to contribute to designs for learning communities with the purpose of knowledge productivity that leads to the creation of artefacts, and 2) how can conceptual artefacts be validated as (learning) outcomes?

Concluding remark

Overseeing the new questions that arise from my research so far, I wonder whether I can still speak of a quest for the holy grail of effective collaborative learning. Maybe a future title for essays on my work should be: The Perpetuum Mobile of Research Questions Regarding Effective Collaborative Learning ☺.

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8. Information Problem Solving in the Bachelor of ICT

Jos van Helvoort

Introduction

Many years ago, when I was 23 years old, I was looking for a topic for my Master's thesis. As a student in Dutch literature I knew that I wanted to do something about 'reading pleasure' for students in secondary education, but I could not find a good focus. One afternoon in 1980 I visited an antiquarian bookshop in Amsterdam. While I was looking for something else my eyes fell - more or less accidentally because there were hundreds of books on the shelves - on a translation of Krathwohl's 'Taxonomy of the Affective Domain' (1971). It was exactly the right book at the right time for me. The educational theory in the book helped me to find a direction for my last assignment at university.Was I just lucky that I found the book? I don't think so. I think that I could recognize at the right time the information that I needed and to select the right book by a kind of intelligent intuition. I realized that the content was useful for the answers I was looking for. One of my questions today is whether I was also 'information literate'.

Information literacy (also referred to as the competence of 'information problem solving') is an essential set of skills for today's knowledge society in which people are confronted every day with an abundance of information on the internet and many other media (Eisenberg, 2008). Students in higher education are often faced with assignments that require them to recognize an information need, gather the relevant information, analyse and then synthesize it to formulate an adequate answer on a real-life problem (Brand-Gruwel, Wopereis, & Vermetten, 2005). During their careers the competence to solve problems with information from the internet or digital libraries will continue to be very much in demand (Weiner, 2011; Head, Van Hoeck, Eschler, & Fullerton, 2013). Searching for information, accumulating it and synthesizing it into knowledge are 'research skills' (Eisenberg, 2008) and are furthermore a condition to becoming a self-directed knowledge worker (Lloyd, 2003). Consequently, information literacy skills ('informatievaardigheden' in Dutch) have been a serious object of international research in Library and Information Science since around the year 2000 and are explicitly mentioned as one of the skills needed in the twenty-first century (Trilling & Fadel, 2009).

Because of the importance of information literacy skills for students, I conducted a comprehensive research on methods of assessing students in higher education.

When citing in APA, please refer as follows:

Van Helvoort, J. (2018). Information Problem Solving in the Bachelor of ICT. In F. Jacobs, & E. Sjoer (Eds.), *Inspired to change: A kaleidoscope of transitions in higher education*. The Hague, The Netherlands: The Hague University of Applied Sciences.

In my PhD research I described the construction, testing and evaluation of a 'scoring rubric' that can be used to measure and promote these skills (Van Helvoort, 2016; Van Helvoort, Brand-Gruwel, Huysmans, & Sjoer, 2017). A scoring rubric can be defined as a set of "criteria for rating important dimensions of performance, as well as standards of attainment for those criteria" (Jonsson & Svingby, 2007). The 'Scoring Rubric for Information Literacy' (Van Helvoort, 2016; Van Helvoort, Brand-Gruwel, Huysmans, & Sjoer, 2017) used the following seven criteria: 1) orientation on the topic, 2) reference list, 3) quality of primary sources (books, journal articles, websites, etc.), 4) in-text citations, 5) creation of new knowledge out of relevant information, 6) search terms/keywords, and 7) the use of secondary sources (search engines, bibliographic databases). These criteria refer to lower order, more operational and administrative skills (reference list, in-text citations, keywords and databases) as well as higher order thinking skills (orientation and question formulation, evaluation and selection of primary sources, creation of new knowledge). The professional behaviour and clear examples of insufficient behaviour are described for each criterion.

The case of the Bachelor of ICT

From the perspective of my PhD research, I was interested in the way that competency of information problem solving was integrated into the curriculums of the Bachelor of ICT. The Bachelor of ICT at The Hague University of Applied Sciences, where I work as a lecturer, is a broad programme with five differentiations: Software Engineering (SE), Network & Systems Engineering (NSE), Business & Management (B&M), Information Security Management (ISM) and Information & Media Studies (IMS).

Not only was I interested in information problem solving activities in the curricula but also in engaging my colleagues in integrating these IPS tasks in their curriculum. I therefore decided to design my research as a participative project. The information about the curricula was gathered by interviewing colleagues.

In this research, the seven criteria of the scoring rubric for information literacy were considered as referring to sub-skills of the constituent skill 'information problem solving', which is itself part of the broader concept of research skills (Eisenberg, 2008). The main question of the research was: Which information problem solving skills, according to the lecturers in the Bachelor of ICT, are important for their students, and which facets of information literacy should be paid extra attention?

Nine lecturers from the Bachelor of ICT program were interviewed: two each from SE, NSE, B&M and ISM and one from IMS. The interview questions were tested in a mock

interview with a SE lecturer. All interviews were taped with a memo recorder and the texts were transcribed. The content of the transcriptions was coded with ATLAS.ti with codes from a code list that was constructed beforehand.

Results

Almost all the staff members interviewed indicated that they stimulated students to retrieve theoretical information from the subject-based literature and to use that information for solving subject domain related problems. Information literacy skills are, according to the staff members, not only important in the course dedicated to the acquirement of research skills but also in other, more subject-based courses. Only the subject lecturer from SE indicated that in his field of applied sciences, information seeking does not only refer to comprehensive research. According to him, quick look-ups on the internet for instance on solving software programming errors are much more important. "In those cases, it is enough to type the error message in Google and then you can easily find some sites, for instance StackExchange; places on the internet that you often use." This lecturer from SE also indicated that information sources are often provided in the course pack and that students don't have to do the information research themselves. This is confirmed by the second SE lecturer (a professional skills lecturer), although she wishes this wasn't the case: "It seems that most of my colleagues in SE think that they can provide their students with the only right theory and that there is only one way to solve problems. I don't believe that. The world is much more complex."

All the other interviewed lecturers indicated they supported a didactic approach that asks the students to retrieve subject information themselves and to build in this manner their own knowledge (the criterion 'creation of new knowledge' in the scoring rubric). In general, the lecturers do not ask their students to use the library databases for it: in their opinion it is good enough to use Google Scholar and to recognise the original resource in the result list. One of the lecturers from B&M said: "That's the way I do it myself."

According to all the respondents, the most important sub-skills of information problem solving are:

- selecting items from a result list
- judging the information on actuality, relevance and reliability
- analyzing the information to apply it in the student's own knowledge product.

Also, the SE lecturer, whose opinion that seeking information mostly refers to quick look-ups on the internet, had the opinion that students must be able to transfer the

information that they find to other contexts. “For instance, if the student has found information on the A * algorithm in games he must be able to apply it in a planning system.”

Although all four lecturers in the differentiations NSE and B&M said that whilst they attach great value to the use of reliable information sources, they don’t ask their students to report on their search strategies (the criteria ‘search terms’ and ‘secondary resources’). They think that they can judge the quality of the search process by the judgement of the sources in the reference lists. The subject lecturers in ISM and IMS however do ask their students for a search process report. “Otherwise they don’t remember what they have been doing,” says one lecturer from IMS. The professional skills lecturer from SE doesn’t ask for a report but directly asks each student how they conducted their search.

References to information sources (in-text citations) and a reference list were considered important by almost all respondents (except again the SE subject lecturer), but the correct appliance of a citation style (APA, IEEE) was less important to the lecturers. However, only mentioning a URL in the text or reference list is not considered good enough.

All interviewed lecturers who claimed that information problem solving is important for their students do assess the quality of the information processes themselves, but it is exceptional to use a scoring list or rubric for it. One of the B&M lecturers knows that the scoring rubric for information literacy is applied in one of the B&M courses. In all other cases the judgement of the quality of the information problem solving process is implicit. In other words, no explicit judgement of the information problem solving by students (like the mentioned ‘Scoring Rubric for Information Literacy’) took place.

When they were asked which of the information problem solving skills students could improve the lecturers NSE answered that students should be taught to look further for the best primary sources. One of them expressed it this way: “This new generation of students, you’d think they are used to surfing the internet but I am sometimes so disappointed. For example when they only look at Wikipedia and do not search for more information. Why don’t they use the reference list there?” Improvements suggested by the lecturers in B&M is the attention paid to evaluation and regulation. “We ask a lot from them, but I am afraid that they stop learning after they have received the feedback and their grade. I doubt that they will do better next time.”

Conclusions

The main research question in this chapter was: Which information problem solving skills are, according to the lecturers in the Bachelor of ICT, important for their students? Selecting items from a results list and judging the information on actuality, relevance and reliability were regarded as extremely important by most of the interviewed lecturers. All these sub-skills refer to the third criterion of the scoring rubric, the quality of the primary sources. As mentioned before, one of the NSE lecturers holds the opinion that students should improve their behaviour exactly on this point. Another sub-skill that is seen as very important by the interviewees is the analysis of information to be applied in the student’s own knowledge product. This refers to the fifth criterion of the rubric, the creation of new knowledge.

The quality of primary sources and the creation of new knowledge criteria both bear extra weights in the grading process with the scoring rubric. A third criterion which also bears extra weight (‘orientation on the topic’) was mentioned as an important sub-skill by some interviewees but not as explicitly as the other two criterions. One of the facets of information problem solving that need improvement, according to one of the lecturers, is the reflection on the whole process to stimulate the anchoring of this mode of working.

In the concept of information problem solving are higher order skills (orientation and question formulation, judging information and creation of new knowledge) distinguished from lower order skills (reference list, in-text citations, the selection of keywords and databases). Considering all results of this research, one can conclude that the importance of the higher order IPS skills – which refer to ‘learning to think’ (Elshout, 1990) – is recognised by most of the interviewed lecturers. The lower order skills are considered less important by most of them.

Discussion and recommendations

Research skills are an essential competence for twenty-first century professionals and solving information problems is part of it. During this research it was found that many lecturers of the Bachelor of ICT have integrated the solving of information problems in the students’ learning processes. According to Healey (2005) these competences are part of ‘inquiry based learning’. A research paper by Prince and Felder (2006) claims that inductive teaching methods in engineering education can also be “at least equal to, and in general more effective than, traditional deductive methods for achieving a broad range of learning outcomes.”

When we overlook the results of the research in this chapter it may be concluded that most of the differentiations in the Bachelor of ICT have integrated an approach about solving information problems into their curricula. However, for the differentiation SE it would be useful to consider conducting new research about the question of whether information problem solving is indeed neglected over the whole curriculum. If so, it is recommended to investigate which courses can create assignments that challenge students to explicitly solve information problems. Total absence of these types of assignments and projects in the curriculum (except for the dedicated course about research methods) is at least worrying because of the importance of research skills.

A second recommendation for the staff of the Bachelor of ICT is to make the assessment of information literacy skills more explicit. The appliance of a scoring rubric or grading list makes the grading process – currently mostly implicit – more objective, transparent and fair for the students. It is the researcher's experience that his Scoring Rubric for Information Literacy may also function as a learning tool when it is shared with students in the classroom beforehand (Van Helvoort & Joosten, 2017)[1].

Finally, it is recommended that students are asked to describe their search process and then reflect on it. Textbox 1 shows the items that students consider when reviewing their search process. This reflection is certainly the best way for students to improve their information seeking behaviour (Webber & Johnston, 2000). The researcher has developed a format for the search process reports that doesn't take too much time for the lecturers to grade and that emphasizes the learning moments for the students more than the detailed description of what the students have done step by step.

1. *Description of the original assignment*
2. *Resource for orientation and how this was used*
3. *What became the main research question?*
4. *Use of secondary resources (search engines, directories, abstract databases, portal sites) and an explanation how you found them*
5. *Systematic overview of search terms which were used*
6. *Journals*
7. *Experts*
8. *Collections physical resources*
9. *Search methods (backward chaining, forward chaining, pearl growing or database queries) + what were results?*
10. *Resources and / or search methods which were the most successful*

Textbox 1: The items for students when reviewing their search process.

1 The scoring rubric itself can be downloaded at https://tinyurl.com/y9emkvjk (Dutch version) and https://tinyurl.com/y9h9d7uz (English version).

Was the young man information literate?

When we return to the question in the lead of this chapter, one might remark that the young man was indeed competent in finding information. However, the activities in the definition of 'information problem solving' or 'information literacy' in the introduction of this chapter ("recognize an information need, gather relevant information, analyse and synthesize it to an adequate answer"), do not refer to this more intuitive manner of finding information. But there is no doubt that the ability to discover information more or less by 'accident' is also useful for professionals. The last recommendation in this chapter is therefore to extend the definition of information literacy to the recognition of 'information opportunities' in all day situations. My visit to the antiquarian bookshop in 1980 was one such situation, and listening to a news broadcast is another example. How we can teach our students to develop this ability of serendipity is an interesting question for future research.

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9. ‘First Impressions’ or ‘at a First Glance’

Adjusting prejudices

Karijn Nijhoff

A conversation during the initial, exploratory phase of a study into the experiences of Syrian refugees on the labour market took a surprising turn: the discussion partner reported complaints about soiling of toilets and indicated that the probable cause was Dutch toilets being used as squatting toilets. In many parts of the world, it is a widespread practice to squat over a toilet, with countries like Japan displaying stickers in toilets as shown in Figure 1.

Figure 1: Warning sticker with instructions against squatting

Toilet etiquette varies in various parts of the world, and this is an example of how cultures can come to clash over a very basic need. Geen Stijl – a news site describing itself as ‘tendentious, spurious and unnecessarily rude’ – has already seized this as an opportunity to state ‘we’ should not adapt to ‘others’. It is argued that migrants should adopt the German (and Dutch) custom, while mocking bathroom etiquette in Syria. Interestingly in this regard is that numerous studies suggest that squatting is better for your bowel health (e.g. Enders, 2014).

The saying ‘What the eye doesn’t see, the heart doesn’t grieve over’ is a way of saying we only love what we know. And there are many more ways in the vernacular to express the same, referencing to strangers and to a fear of the unknown. In the social sciences,

When citing in APA, please refer as follows:

Nijhoff, K. (2018). First impressions or adjusting prejudices: The initial response of newcomers and and the role of education. In F. Jacobs, & E. Sjoer (Eds.), *Inspired to change: A kaleidoscope of transitions in higher education*. The Hague, The Netherlands: The Hague University of Applied Sciences.

especially in social psychology and sociology, fear of the unknown and the tendency to favour the group one belongs to are recognised phenomena. This chapter will look at elements of these scientific theories and establish a link between these elements and the initial findings of a study of Syrian refugees on the Dutch labour market. First, this study is described, after which a glimpse into the world of social psychology[1] is provided. This chapter concludes by taking a wide perspective on Dutch society and by discussing some lessons that can be learned for a diverse future.

Study of Syrian employees in the Dutch labour market

Early 2017 a study was launched into experiences of the Dutch labour market with Syrian nationals holding refugee status, or Syrian permit holders[2]. In the period from 2014 to 2016, approximately 40,000 people came to the Netherlands as refugees fleeing the violence in Syria. This comparatively large inflow over a brief time meant that several initiatives were developed to promote the integration of permit holders in the labour market. The study looks at the experiences of permit holders, their colleagues and managers. It aims to build a website, employers can use to provide guidance to Syrian permit holders and employ them in a sustainable manner in the workplace. The study approaches a range of public and privately held businesses of varying sizes, with in-depth interviews being conducted with the various stakeholders (De Jong, Nijhoff, Sjoer, De Vries, and Wilbrink, forthcoming).

Interviews were held with organisations and companies employing permit holders. In some cases, these may not be representative of an average Dutch business, as permit holders generally encountered difficulties finding employment. Statistics show that individuals of refugee background often have to search for an extensive period of time for employment. They also reveal that unemployment is high amongst these groups, at around 60% on average (Baycan-Levent & Nijkamp, 2009; Betts, Sterck, Geervliet, & MacPherson, 2017; Foti & Fromm, 2016).

There are several reasons why the integration of refugees and permit holders on the labour market is not easy. One of those is the 'unknown means unloved' principle, as referred to above. Not only are 'alien' or 'different' things ridiculed or cast in a negative light, 'the other' is also treated differently. These processes have been described extensively in social psychology[3], providing insight into the difficulties and solutions in a diverse society. The sections that follow discuss a number of these processes.

1 This will be limited to an impression, to the beginnings of what has been written on bias, stereotypes and ethnocentrism in social psychology.
2 Individuals holding refugee status have been recognized by the State of the Netherlands as a refugee and will be permitted to remain in the Netherlands for a period of at least five years. They have been granted a (5 year) residence permit and are allowed to work. In this article they will be referred to as 'permit holders'.
3 Sociology is among the fields that have extensively studied processes between groups and between newcomers and established members, e.g. in the work of Robert Merton and Norbert Elias.

Social psychology of group processes[4]

After the Second World War, a range of experiments were conducted to study group behaviour. The Holocaust was a crucial factor leading to this research: how was it possible that large parts of society allowed themselves to become involved in genocide of 'the other'? Could group processes provide an explanation for this? Sherif & Sherif (1953) were among the first researchers to systematically investigate group processes and relationships between groups. They studied the behaviour of boys in summer camps, dividing them into groups and then having them compete against each other. Even slight competition gave rise to prejudice, discrimination and ethnocentrism, particularly in the group emerging as winners in the experimental competition. The authors developed the 'Realistic Conflict Theory' to account for this: prejudice, discrimination, and ethnocentrism will arise quickly when groups are competing for the same goals (not just when winning a game, but equally when competing for jobs, houses, etc.).

The Realistic Conflict Theory is formulated around the aims of the groups, whereas other research indicates that it is not necessarily competitive relations that prompt prejudice, discrimination and ethnocentrism. The Minimal Group Paradigm describes how individuals tend to favour their own group, even if their group is based on completely arbitrary distinctions. Simply being assigned to a particular group leads members to view their group in a more positive light: group membership by itself can give rise to ethnocentrism and competition.

The 'Minimal Group Paradigm' prompted further research into group behaviour and people's motivations for forming such strong attachments to groups. This led to the development of the 'Social Identity Theory', which states that individuals determine part of their identity based on membership of a group (Tajfel & Turner, 1986). Membership of one or more groups gives individuals a sense of pride and identity as well as self-confidence – think of sports clubs or national teams for an apt illustration of this. A club or team win can raise people's opinion of themselves.

In other words, as soon as a group is established, its members will try to maintain the highest possible status. This is already evident when groups are based on very rudimentary distinctions such as 'you are the red team' and 'you are the blue team'. As the group characteristics or groups gain in importance, this group identification becomes ever stronger. Customs that differ between other groups and one's own group soon become targets of ridicule, or at the very least are characterised as strange. The same applies to bathroom etiquette in a large part of the world.

4 In addition to the sources previously referenced, this part of the text is mainly based on Hogg & Vaughan (1995) and Duckitt (1992).

Membership of a group is a source of pride, a sense of identity and self-confidence to us, and it is therefore key that the group is viewed in a favourable light. The Social Identity Theory uses this principle to connect the effect of group membership and identity to a wide range of processes. Ethnocentrism, bias and discrimination are examples cited previously. Other processes are favouring one's own group, reinforcing differences between groups, falling in with the customs in one's own group, judging the behaviour of one's own group and that of the other group. This set of processes fits in with the tendency to perceive alternative behaviours of others negatively and view one's own customs positively. These processes also provide a basis for discrimination.

Ethnocentrism

A definition of ethnocentrism existed as early as 1906: "An interrelated set of values, attitudes, and behaviours involving both ingroup identification and outgroup hostility" (Duckitt, 1992, p. 67). It touches on these group aspects and goes some way to explain aversion to strangers. Social categorisation is key in this context, as humans have a limited capacity for storing new information. This means that new information is commonly selected based on recognisability: a woman wearing a headscarf will be more readily recognised as Muslim than a woman who has not covered her head. In this way, others are continually picked out for their differences, while similarities are overlooked (because they aren't as visible). The same is true for behaviour. If a member of another group makes a mistake, this is remembered better and attributed quicker to that particular group ('they are just prone to making errors'), compared with an error committed by a member of one's own group. Combined with the Social Identity Theory, it quickly becomes clear that in the eyes of many, everything 'others' do is wrong and everything done in accordance with the values and standards held by the individual or group itself, is regarded as good or better.

Diversity and community

Group processes, ethnocentrism, discrimination and prejudice are closely intertwined in our thinking, but this does not mean change is impossible. There are many ways in which thinking can be influenced. One of these is described in the 'Contact Hypothesis', which posits that contact or interaction with members of a different group can do away with prejudices. Although this does not hold true in every scenario, the 'Holidays for all' documentary illustrates this well5. The topic of this documentary is a camping site in Zeeland, part of which has been set aside as a temporary reception centre for asylum seekers. A (white, Dutch) couple is seen walking across a part of the camping site that is used to accommodate asylum seekers. The couple opposes the reception centre, feels that permit holders are 'opportunists' and sees no reason why refuge cannot

5 https://www.npo.nl/vakantie-voor-iedereen/29-08-2017/POW_03597982: 28th-29th minute

be provided in Syria or their own country. They then strike up a conversation with a married couple from Iran, and at the end of the conversation they come away with an adjusted view. They have discovered similarities between themselves and the others. The refugees are Christians and well dressed. Their brief interaction has created some scope for understanding and made the contrasts between the groups less marked. Suddenly, membership of other groups gains relevance. The scenario changes from Dutch nationals on one side and refugees on the other to 'the well-dressed group' and 'the Christian group' – things they have in common.

Perceptions can also be altered because of changes in the context. Social settings are not fixed. Societies are constantly changing and social comparisons change along with this (Haslam, Turner, Oakes, McGarty, & Hayes, 1992; Haslam & Turner, 1992). 'This is how we do things' or 'this has always been the way' are concepts that often lack any basis: half a century ago or even 25 years ago, things were done differently and society has changed a great deal. People tend to forget that communities and cultures are not immutable things, and that as a result identities and group identities can be fluid.

Contact, however, is not the only solution. It is also important to explore and take on board other ideas and refrain from responding with 'this is how we do things'[6]. Wherever distinct groups interact – in workplaces, clubs or schools – it is important that differences not only be allowed to exist but also be given leeway. The concept of 'interactional diversity' expresses that interaction is needed in addition to contact (Garcia, 2014).

One aspect of interaction is that existing differences not need to be the focal point. After all, humans are not one-dimensional creatures. A refugee could also be a mother, daughter, academic or a dentist. A migrant could be Muslim, a fan of classical music, a son, a student or a car lover. Aside from the differences, there could also be many similarities that are currently being overlooked. Striking examples can be found of this, such as a Danish clip on 'pigeonhole thinking'[7]: The clip illustrates how people fit into many 'pigeonholes' at the same time and how, if we look beyond differences in appearance, there are many ways in which we find a lot of similarities between people. Another example is a wonderful TedX talk by Chimamanda Ngozi Adichie, in which she addresses the danger of a single story.[8]

Change is possible and (higher) education has a vital role to play in this. Research and education can support society in highlighting the importance of diversity and in training people to recognise the added value of diversity. Everyone will need to put considerable effort into ensuring people are judged for their personal qualities. Lecturers and professionals will need to examine their own judgements and biases

6 https://www.nrc.nl/nieuws/2017/08/09/hoera-we-zijn-divers-maar-wat-nu-12427898-a1569316
7 https://www.youtube.com/watch?v=vEvlsm569GE
8 https://www.ted.com/talks/chimamanda_adichie_the_danger_of_a_single_story

first, before they can help to shape the perceptions of students. There is no reason why 'pigeonhole thinking' and 'single stories' should continue to exist. The education sector is well placed to tackle thinking as 'this is how we do things' – sure, this is how we do things, but are there other ways? And if so, what do these involve? Together with students, lecturers can promote the benefits of the contact hypothesis and the concept of interactional diversity. Textbox 1 gives examples of programs and tools to use for this goal in education. In this way, social awareness of a different but healthier practice may, in a few years' time, have us all squatting on our toilets.

The website of the University of Michigan offers access to an array of tools for instructors to enhance diversity (https://sites.lsa.umich.edu/inclusive-teaching/cultivating-inclusive-classrooms/)

Another example is the 'Social Identity Wheel' (https://sites.lsa.umich.edu/inclusive-teaching/2017/08/16/social-identity-wheel/). This provides for an activity that encourages students to reflect on the numerous ways they identify socially, how these identities become visible or more keenly felt at various times, and how those identities impact the ways others perceive or treat them. The worksheet prompts students to fill in various social identities (such as race, gender, sex, ability disability, sexual orientation, etc.) and further categorise those identities based on which matter most in their self-perception and which matter most in others' perception of them. The Social Identity Wheel can be used in conjunction with a 'Personal Identity Wheel' to encourage students to reflect on the relationships and dissonances between their personal and social identities. The wheels can be used as a prompt for small or large group discussion or reflective writing on identity by using the 'Spectrum Activity Questions on Identity'.

Michigan State University offers similar programs, including tools for instructors to detect implicit biases (http://inclusion.msu.edu/education/diversity-and-inclusion-workshops.html).

Textbox 1: Examples of inclusion and diversity programs/tools

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10. Designing an Integrated, Futureproof, and Flexible Curriculum

The Transition of the IDE Curriculum Supported by CDIO

Suzanne Hallenga-Brink

This chapter is based on the publication:
Hallenga-Brink, S.C., & Sjoer, E. (2017). Designing a Flexible, Choice-Based, Integrated, Professionally Challenging, Multidisciplinary Curriculum. *Proceedings of the 13th International CDIO Conference, University of Calgary*. Calgary.

Introduction: The need for a flexible, integrated curriculum

Industrial Design Engineering [Open] Innovation (IDE) is a 3-year, English taught, VWO entry-level, undergraduate programme at The Hague University of Applied Sciences (THUAS). The IDE curriculum focuses on the fuzzy front end of (open) innovation, sustainable development, and impact in the implementation phase of product-service design. The work field of Industrial Design Engineering and Open Innovation, like many other domains, is growing increasingly more complex (Bogers, Zobel, Afuah, Almirall, Brunswicker, Dahlander, Frederiksen, Gawer, & Gruber, 2017). Not only have the roles of designers changed considerably in the last decades, they continue to do so at increasing speed. Therefore, industrial design engineering students need different and perhaps more competencies as young professionals in order to deal with this new complexity. Moreover, in our transitional society, lifelong learning takes a central position (Reekers, 2017). Students need to give their learning path direction autonomously, in accordance with their talents and interests.

IDE's Quality & Curriculum Committee (QCC) realized in 2015 there is too much new knowledge to address in a 3-year programme. Instead, IDE students need to learn how to become temporary experts in an array of topics, depending on the characteristics of each new project they do (see Textbox 1). The QCC also concluded that more than just incremental changes to the current curriculum were needed; thus, the idea for a flexible, choice-based semester approach in the curriculum was born: 'Curriculum M' (Modular). A co-creational approach was applied, in which teaching staff, students, alumni, prospective students, industry (including the (international) social profit sector), and educational advisors collaborated to develop a curriculum that would allow students to become not just T-shaped (wide basis, one expertise) professionals, but U- or W-shaped professionals, with strong links to other disciplines.

When citing in APA, please refer as follows:

Hallenga-Brink, S. (2018). Designing an integrated, future proof, flexible curriculum: The transition of the IDE curriculum supported by CDIO. In F. Jacobs, & E. Sjoer (Eds.), *Inspired to change: A kaleidoscope of transitions in higher education*. The Hague, The Netherlands: The Hague University of Applied Sciences.

"… From the evaluation of our first cohorts of graduates' work it becomes clear entrepreneurship is the poor relation of the three pillars of our programme - Design, Research and Entrepreneurship." "So, let's teach entrepreneurship more prominently." "But… I don't see how we can give entrepreneurship more attention without scratching something else important."

"Instead of scratching courses, let's begin from scratch: Let's list what we think are THE important subjects for our profession in the near and far future, and go from there."

Twenty minutes of brainstorming later:
"I think our list has just grown way beyond 180 credits!"

Textbox 1. Quotations from the Quality & Curriculum Committee (QCC) Meeting at IDE,2015.

Using the CDIO framework for curriculum innovation

The Faculty of Technology, Innovation, & Society (TIS) is a member of CDIO (Conceive, Design, Implement, Operate), a worldwide engineering education network. CDIO is a learning community of higher engineering education lecturers, managers and educational scientists in close collaboration with industry, sharing knowledge to deliver 'engineers who can engineer'. It offers a grounded framework of twelve standards of good practice (see Table 1) and a detailed syllabus of competencies formulated with international industry (Crawley, Malmqvist, Östlund, Brodeur, & Edström, 2011) to continuously improve towards practical, future proof education.

CDIO Standard	Explanation
Standard 1 The Context	*"…Beginning engineers should be able to Conceive--Design--Implement--Operate complex value-added engineering products, processes, and systems in modern team-based environments. They should be able to participate in engineering processes, contribute to the development of engineering products, and do so while working to professional standards in any organisation."*
Standard 2 Learning Outcomes	*"…In the CDIO syllabus, professional engineering organisations and industry representatives have identified key attributes of beginning engineers both in technical and professional areas. These detailed learning outcomes for personal and interpersonal skills, and product, process, and system building skills, as well as disciplinary knowledge help to ensure that engineering students acquire the appropriate foundation for their future."*
Standard 3 Integrated Curriculum	*"…A curriculum designed with … an explicit plan [of integrated learning experiences that lead to the acquirement of integrated personal and interpersonal skills, and product, process, and system building skills. An explicit plan identifies ways in which the integration of skills and multidisciplinary connections are to be made… [and which corresponding pedagogical approaches are used]."*
Standard 4 Introduction to Engineering	*"…Students usually select engineering programmes because they want to build things, and introductory courses can capitalize on this interest. In addition, introductory courses provide an early start to the development of the essential skills described in the CDIO Syllabus."*
Standard 5 Design-Implement Experiences	*"…A curriculum that includes two or more design-implement experiences, including one at a basic level and one at an advanced level."*
Standard 6 Engineering Workspaces	*"… Engineering workspaces and laboratories that support and encourage the hands-on learning of product, process, and system building, disciplinary knowledge, and social learning."*
Standard 7 Integrated Learning Experiences	*"…Integrated learning experiences that lead to the acquisition of disciplinary knowledge, as well as personal and interpersonal skills, and product, process, and system building skills. [This] can be realized only if there are corresponding pedagogical approaches that make dual use of student learning time."*
Standard 8 Active Learning	*"…By engaging students in thinking about concepts, particularly new ideas, and requiring them to make an overt response, students not only learn more, they recognize for themselves what and how they learn. This process helps to increase students' motivation and form habits of lifelong learning."*
Standard 9 Enhancement of Faculty Competence	*"…Actions that enhance faculty [teaching staff] competence in personal and interpersonal skills, and product, process, and system building skills."*
Standard 10 ENHANCEMENT Faculty Teaching Competence	*"…Actions that enhance competence in providing integrated learning experiences, in using active experiential learning methods, and in assessing learning."*

Standard 11 assessment	*"...Assessment of student learning in personal and interpersonal skills, and product, process, and system building skills, as well as in disciplinary knowledge... Different categories of learning outcomes require different assessment methods. These methods may include written and oral tests, observations of student performance, rating scales, student reflections, journals, portfolios, and peer and self-assessment."*
Standard 12 Programme Evaluation	*"...A system that evaluates programmes against these twelve standards, and provides feedback to students, faculty, and other stakeholders for the purposes of continuous improvement."*

Table 1. Short descriptions of the 12 standards of CDIO (Crawley et. al., 2011)

CDIO's syllabus has served as a blueprint for the reformulation of the competency profile of IDE in 2015, and its standards as guideline in the Curriculum M development. The programme started its first run in September 2017. What didactic choices did the programme take, congruent with the CDIO framework? And when and where did the ambitions to future-proof its curriculum take IDE even beyond the innovative CDIO guidelines? Based on a more elaborate paper published in the Proceedings of the 13th CDIO Conference (Hallenga-Brink & Sjoer, 2017), we reflect upon these two questions in this chapter.

Curriculum M in a nutshell

In Curriculum M, students learn in a societal, authentic context, together and reciprocally with (a hybrid) teaching staff and stakeholders, including users, while working on challenging projects in teams. After completing the mandatory first semester, 'the Basics of IDE' (Boi), they choose four semesters from a menu, based on their experiences and aroused interests, see Figure 1. Their rationale for choice can be to continue to develop talents or work on weak spots, to deepen or widen their knowledge and expertise, and/or to steer their experience in the thematic direction fitting their emerging professional identity. Throughout the semesters, students work on developing the competencies of IDE except during one minor-semester in C, D or E (semester E in Figure 1). Semester F is the individual final project for graduation, where the students prove all competencies on the highest level. The semester menu is dynamic and may change per year, based on the needs of students, number of enrolments, but also societal and technological developments.

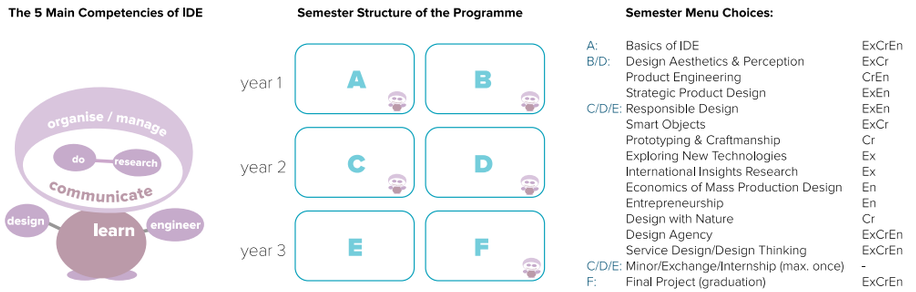

Figure 1. The basic structure of Curriculum M of IDE.

Semesters are 20 weeks each, of which 15 weeks are directed at the challenging project and its supportive workshops with an expo of all results at the end, and the last 5 weeks are so-called 'portfolio weeks'. The latter are allocated to extracurricular projects (students' own bedside table projects, *free space* projects from teachers, special excursions or international exchanges), concluded with a portfolio event where students get feedback from industry. There should be no entry barriers to a semester for a modular curriculum approach to work (Sinke, Zondervan, Kessel, Theeuwes, & Rouwhorst, 2015). Therefore, the only requirement is to have passed the Basics of IDE in semester A. After that, all semesters can be chosen in any order. Organisationally, the minimum and maximum number of students who can enrol for a semester is predefined. Students submit their first and second choices. The programme cannot always guarantee first choice placement. Because of the parallel menu choices, students each create their own integrated path through the curriculum.

The twelve CDIO standards in curriculum M

Future-Proof Learning Outcomes

In 2015, together with the Dutch twin IPO-programme at THUAS, IDE has reformulated its competency profile into a comprehensible set of 5 main competencies that students need to master, see Figure 1 once more. This visualisation of the competencies shows where each is nested: 1. Doing research provides glasses to look through. 2. Designing and engineering is hands-on. 3. For organizing and managing, students need to develop the frontal lobe in their brains. 4. Communication is always important: your words, arguments, presentations, teamwork skills etc. 5. Learning is a matter of the (motivated) heart. Each competency has several sub-competencies, 24 sub-competencies in total (see Figure 2). Lawson & Dorst (2009) recognize distinct levels of

expertise in undergraduate design students, from a novice who can apply strict rules, via an advanced beginner who relies on general truths and can make connections, to a competent graduate who is a problems solver, learner and reflector able to adopt when needed. The sub-competencies are described on these three levels in a programme-wide rubric. The active verbs of Bloom's taxonomy (Felder & Brent, 2004) are used in the rubric-cells. There are three integrated, individual assessment moments per semester only: in weeks 5, 10 and 15. Each time, students individually proof a self-chosen selection of five or six of the 24 sub-competencies on the next level based on their project and workshop work, which they collect in their portfolio library.
At the end of Semester F, they will have proven all sub-competencies on the 'Competent' level.

Design Expertise levels:	ENTRANCE level	NOVICE (apply strict rules)	ADVANCED BEGINNER (general thruths)	COMPETENT (problem solver)	THE MASTER (post bachelor)
Competencies IPO/IDE:	Linear processing, guessing and assuming	Checking the boxes, following steps, explaining	Connecting design steps, reflecting	Judging, self-evaluating, reflecting, adapting, solving	developing and opening new ways, creating new domains
1. Do Research					
1.1. (Re)define problems and reason analytically	Student retells client's and user's input literally	Student lists client's and user needs and problems, based on general arguments	Student determines stakeholder needs and problems, based on relevant arguments	Student constructs the problem definition, based on triangulated arguments	Student adapts problem definition with client based logical, experience-based analytical arguments
1.2. Discover knowledge by investigating and experimenting	Student finds existing general knowledge	Student investigates by given methods	Student discovers by experimentation, combining appropriate methods of the design/innovation process	Student constructs knowledge by selecting the valuable outcomes of his/her experiments, investigation and discovery	Student dives deep for each new project by investigating and experimenting by prefered methods
2. Design & Engineer					
2.2. Use an iterative process with diverging and converging methods and techniques	Student considers the design process to be a 'straight line' process from A to B	Student iterates when requested to do so, and uses basic (given) diverging and converging techniques	Student selects proper methods for the diverging and converging phases in the design process	Student selects proper methods for an iterative, diverging and converging design process	Student compiles, executes and adapts an iterative design process, and evaluates along the way
2.4. Consider desirability, viability, and feasibility while designing and engineering	Student defines desirability, viability and feasibility	Student classifies desirability, viability and feasibily issues in their project	Student keeps desirability, viability and feasibily issues into account	Student evaluates desirability, viability and feasibily factors of his/her design, weighing their relative importance	Student creates desirable, viable, feasible designs
3. Organise & Manage					
3.2. Collaborate within a design team in a multidisciplinary (international) setting	Student (occasionaly) takes part in team work	Student actively participates in group work and gives team members in project group constructive feedback	Student collaborates with team members from the perspective of a co-established specific role	Student iteratively evaluates his/her role within the team and adapts where and when needed	Student combines several signature roles as a designer in team work
3.3. Show resourcefulness, flexibility and willingness to make decisions in	Student makes decisions when asked to	Student lists available argumentation and takes decisions based on that list	Student follows decisions made earlier in the design process and integrates new	Student iteratively evaluates decisions made during the design process and does down when	Student formulates a decision making strategy for an iterative design

Figure 2. Part of the programme-wide competencies rubric, with examples of sub-competencies.

The IDE competency-rubric covers all learning goals of the CDIO Syllabus. This includes the later additions in version 2.0 of the syllabus: learning goals Leadership and Entrepreneurship. Two elements in IDE's competency set go beyond what standard 2 advises. First, the CDIO Syllabus asks for team work, centred on a team of equals (fellow students). At IDE students learn how to work in co-creation teams with real stakeholders, including industry partners and users. And secondly, as most students are communicating daily in a foreign language (English), the learning goals for working in an international setting are more elaborate. They focus on taking cultural diversity into account both in process and results as a team, and not just practicing a second language.

Integrated Learning and Assessment
Each IDE semester is an integrated learning experience with project tutoring and practicing in workshops, social and autonomous learning activities, formative and summative feedback and dialogue with the programme.
An IDE student has a conceive-implement, design-implement, or design-operate experience every semester of the major programme, following standards 3, 4 and 5 (see Table 1). A big question in the development of Curriculum M was how to gradually increase the authenticity and complexity of the professional learning tasks, and the autonomy and self-direction of the student. It is not enough to merely offer the authentic, professional context following John Dewey's theory of experiential learning (Fransen, 2005) and restore reflection in engineering education (Buch & Bucciarelli, 2015). When one 'throws students in at the deep end of the pool', as a Dutch saying goes, with minimally guided instructions for 'increased authenticity', this does not fit the cognitive architecture of our students' brains when they come in at age 17-19 (Kirschner, Sweller, & Clark, 2006). Kirschner found evidence for a higher effective learning by guided, just-in-time instruction, in order to deal properly with critical cognitive load. This led to a standard semester structure where workshops offer just-in-time supportive theory and skills to the project groups which are fully integrated with the project, and structure to work on the challenging project by weekly tutoring sessions, see Figure 3. Also, regular coaching sessions are provided, so the students are scaffolded in learning to define their own professional profile and in proving their mastery of the competencies along the way.

Figure 3 shows the first, mandatory, Basics of IDE semester. Each unit has a focus on one of the four stages of CDIO. In four units of 5 weeks, all three profiles of IDE 'explorer', 'designer' and 'entrepreneur' are addressed within one complex group project (in 2017 on Micro-mobility). This is where both introduction and selection take place. During the introduction week, students build a prototype of their first intuitive design right away. They continue with the same design challenge in units 1, 2 and 3 focusing on different aspects and phases of the project, presenting it at their first expo. In Unit 4, the portfolio weeks, they design and build the first version of their personal digital portfolio and ask feedback on it from professionals.

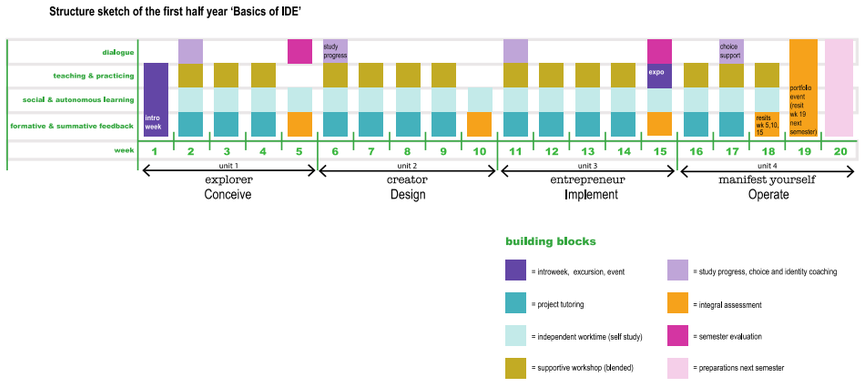

Figure 3. The Basics of IDE Semester, the first compulsory 20 weeks of the IDE programme.

In all following semesters of choice, in line with CDIO, students are taught beyond conceiving and designing in a theoretical setting by working on real projects, including implementation and operation activities such as manifesting themselves in the work field and sometimes even launching products in the market. Clients can be industry partners, design agencies, but also social domain partners and non-governmental organisations. For instance, students think up solutions for refugee camps for Doctors Without Borders, or design smart technology products for the blind and visually impaired for social enterprise Wunder People. That being said, implement and operate are less often touched upon in typical educational design projects. For that reason, some of the new semesters in Curriculum M focus on those two phases, using concept/design results of other more strategic design semesters. This will empower innovations within the programme. Students can also set up their own enterprise during their studies (during the Entrepreneurship and Final Project semesters) around one of their designs from former semesters.

What IDE added to standard 5 is to offer students international and multi-disciplinary design-implement experiences during these semesters to prepare them even better for their future jobs. Because of the international classroom at the IDE programme (over 80% of students come from abroad), every semester can be seen as an international experience, but students also have the opportunity to go abroad to do a design or design research project, an exchange, or a minor elsewhere. The semesters are open to incoming exchange students from partner universities as well. Some projects will be undertaken by IDE students together with students from other disciplines such as mechanical engineering or non-engineering disciplines (health, social work, business

etc.). This ensures an actual multidisciplinary context for our students already during their studies.

Didactics in teaching and assessment

Because of the design-focused engineering education at IDE experiential learning has been the focus in teaching methods, standards 7, 8 and 10. However, next to active learning there are other important didactical choices to encourage the lifelong learning abilities of our students. One is familiarizing them with blended learning during their studies. Another is giving room for autonomy. When students can show autonomous behaviour, they voluntarily take on working or learning tasks (Gagné & Deci, 2005). In a lifelong learning setting, which will not always have grades and credits as extrinsic motivators, this is vital. IDE likes to give students the chance to tap into their personal drivers, by letting them choose their own path and build up their own professional identity. Meijers et. al. (2010) identified three main conditions for developing a professional identity: learning should take place in an authentic setting, students should have the opportunity to choose part of their study activities according to their personal development goals and there should be a professional, reciprocal dialogue between students and teachers about their development. Curriculum M provides for this dialogue during coaching, workshop feedback, and the 5-weekly summative assessments. Cohen-Schotanus (2010) shows that students typically start preparing three weeks before the deadline and study hardest for the first test they have, to the disadvantage of the remaining ones in the same period (Schmidt, Schotanus, & Arends, 2009). Therefore, Curriculum M semesters purposefully have the 5-week unit structure; see Figure 3, concluded with one single individual, integrated oral assessment with two independent assessors. Within this assessment the focus is on what the student has learned instead of on what is lacking. The grading is done in dialogue, where ideally student and assessors agree at the end of the session what sub-competencies indeed have been proven, and the student summarizes the received feedback in an action plan. There is no competition of other exams or classes during the assessment weeks.

Faculty Competences and Facilities

Society sees a changing role of the 21st century teacher, not as an expert on a certain specialisation only, but as a coach or perhaps even a co-designer in an open innovation network setting, facilitating innovations by reciprocal learning of all stakeholders including the students (Hallenga-Brink & Vervoort, 2015). Thus, necessary competencies of teaching staff change, standards 9 and 10. Part of the lecturers is hybrid, designing or doing research next to teaching, which increases competency. Choosing a co-creation approach for Curriculum M brought along the opportunity to enhance competency even more. During co-creation sessions reciprocal learning takes place. Also, training for the new curriculum has been in focus. Teaching staff has

taken part in several CDIO workshops, working on constructive alignment of teaching, learning, and integrated assessment. Also training and calibration sessions for the integrated assessment and coaching on professional identity have started and will continue to be planned throughout the semesters.

Because CDIO is integrated in Curriculum M, the evaluation automatically takes CDIO-principles along, standard 12. Instead of developing plans and implementing them and then asking industry to evaluate this, IDE has taken the route to co-create the new curriculum in a group of teaching staff, (prospective) students, alumni, industry, educationalists, and other stakeholders. During the semesters evaluations (one in week 6 and one in week 19) students and clients will help teaching staff to adapt while teaching and planning for the next run. This co-creation setup results in not only *feedback* afterwards, but also *feedforward* and *feedduring*. This kind of input was for instance used in the reconstruction process TIS is currently in, to make sure facilities such as project group landscapes instead of traditional classrooms, professional meeting spots with clients, and of course the workshop and 3D protolab are going to be on par with the learning activities of the IDE students, standard 6.

All these results are summarized in Table 2.

Very valuable	Standards 9 & 10	Attention to (hybrid) faculty competence improvement, training and support during the implementation of an innovative curriculum design
	Standard 6	Input to make our (near-)future workspaces future-proof
Valuable + Beyond	Standard 2	Learning Outcomes *also on international and co-creation competencies*
	Standard 5	*International, Multi-disciplinary* Design-Implement Experiences
	Standards 8 & 11	*Student-owned and Lifelong* Active Learning and *less but fully integrated* assessment
	Standard 12	Programme Evaluation *as part of the curriculum (design) cycle*

Table 2. The highlights of IDE's experience using CDIO as blueprint and guideline for curriculum redesign

Conclusion: Reciprocal learning and iterative 'beta'testing

What kind of didactic structure do you need to future-proof your programme in higher education? In innovating the IDE curriculum towards a flexible, choice-based,

integrated, professionally challenging, and multidisciplinary curriculum, the CDIO framework has proven to be a match to our ambitions. As the terms conceive, design, implement and operate are closely related to the realms of an open innovator, they were effortlessly found back in the structure of the curriculum. The CDIO syllabus 2.0 also fitted to the competencies of an industrial design engineer, with some minor additions. And the CDIO standards offered welcome reminders and guidance on staff development, the organisation of the programme, and the needed facilities. This has ameliorated the chances of a successful implementation of Curriculum M.

In other standards, Curriculum M found a match but also went beyond the CDIO framework: taking teamwork to the next level of co-creation and add intercultural competences beyond communicating in a different language compared to the Syllabus; and by advancing on several standards (2, 5, 8, and 11), for instance by co-creation with all stakeholders instead of thinking something up first and then checking if they would be willing to support in hindsight. Also, ownership of the student of his own learning and assessment was taken to the next level, with a fully integrated assessment system. This proves to have a positive influence on study progress and self-directed learning instead of underachieving. And last, the flexibility of the semester menu to respond to changes in the work field and society is an important starting point for a future-proof curriculum. These opportunities of growth for the framework are brought back to the CDIO learning community via conference papers and workshops.
In the meantime, using the CDIO framework has made it possible to collaborate with CDIO partners to offer students the multidisciplinary context they will find in their professional life already during their studies. The next step is to involve our work field network in our CDIO endeavors. Overall, we can recommend using the CDIO framework for curriculum innovation. We feel we can now truly educate designers who can design within their future professional context, and we have a concrete tool to continuously enhance our efforts to do so.

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"If it is organised bottom-up then you barely think about regulations and your autonomy is not compromised"

"During our conversations about a joint module with the different programmes within the department we discussed which literature we could use. Finally, we established that this should not be the basis for the discussion. Maybe the literature still has to be written"

"Initially it felt like we needed to fit a circle into a square, but it soon became apparent that there seemed to be a lot of possibilities"

11. Future-oriented Learning within the Business Sector

A Department-wide Educational Reform through Cooperation of Five Programmes

Frans Jacobs, Janine Haenen, and Hester Lentz

Introduction

The future of the business sector for students in higher education is uncertain. The reasons for this are technological developments, the effects of globalisation and the shifting of business models (Brynjolfsson & McAfee, 2014; Helbing, 2014). The consequences of digitalisation and robotisation are large for professions in the financial-economic sector, such as accountancy and finance, business economy, and marketing (Frey & Osborne, 2013; Deloitte, 2016). As a result, certain jobs will disappear, but on the other hand new types of jobs will arise.

It is expected that people in employment will have to have a strong adaptive ability to handle fast changes. There is an increasing expectation that they need to be mobile between employers and that they should be able to deal with a variety of new tasks, roles and positions (Dochy, Berghmans, Koenen, & Segers, 2015). Professionals need to have a sense of great flexibility in order to be able to anticipate these changes based on their own power and ambition. In addition to this adaptive ability, good interpersonal skills are essential due to the need for working in multidisciplinary teams on complex issues (Onstenk, 2017). The Social and Economic Council of the Netherlands (Sociaal-Economische Raad, 2017) presumes that the level of basic skills required to participate in an increasingly complex society is continuously growing, and they advise upcoming professionals to train their resistance, flexibility and the ability to continuously develop in order to maintain sustainable employability. In this way professionals regularly need to be able to reinvent themselves during periods of change (Van Water & Weggeman, 2017; Frie, Potting, Sjoer, & Van der Heijden, submitted for publication).

What do these changes and requirements mean for higher education? At the moment students are educated based on the so-called national end qualifications or competency profiles which lead to a specific profession. Is this still realistic? Because of fast changes in the business sector the question arises in what way professional education can prepare students for flexible employability for the job market. The ability to engage in life-long learning – which has been an aim since 1960 (Unesco, 1960) – is essential.

When citing in APA, please refer as follows:

Jacobs, F., Haenen, J., & Lentz, H. (2018). Future-oriented learning within the business sector: A department-wide educational reform through cooperation of five Programmes. In F. Jacobs, & E. Sjoer (Eds.), *Inspired to change: A kaleidoscope of transitions in higher education*. The Hague, The Netherlands: The Hague University of Applied Sciences.

This chapter will describe how the Department of Business, Finance & Marketing (BFM) of The Hague University of Applied Sciences (THUAS) has found an answer to the challenges of a Department-wide educational innovation. First it is outlined what this innovation involves and how it will be designed. The net paragraph clarifies the overlap in the competency profiles of the five programmes of BFM. Then the next steps of this educational innovation process are described. Finally, insights will be discussed as to the role of the lecturers and the business sector, as valuable partners, within this educational reform.

Department-wide educational innovation

With a sharp focus on substantial changes and developments within the business sector, BFM has taken a critical look at their own programmes and asked themselves if they adequately equip students for the future job market. The conclusion is that the programmes are not completely future-oriented at the moment. This is the reason why the Department has set up a project called the Network Curriculum (NWC). The NWC is especially developed for the five programmes of BFM (1) Small Business & Retail Management, 2) Marketing, 3) Finance & Control, 4) Accountancy and 5) International Business) in order to build a Department-wide future-oriented educational offer which anticipates the fast changes in the business sector. It provides students, within a flexible and forward-looking curriculum, to develop into flexible business professionals. In addition, students will be able to make their own choices based on individual qualities, needs and ambitions. This means that within the education programme students can establish their own student journey, enabling them to create their own profile and allowing them to distinguish themselves in the job market.

When BFM is able to accomplish these educational ambitions (future-oriented education including a student journey) students will gain insight into the future business area and will learn how they can be flexible and adaptive, so that they will enter the job market as flexible business professionals with the ability for life-long learning. Within this educational reform students will get the chance to approach issues from diverse perspectives: on the one hand students will learn within the context of the chosen programme and on the other hand students will operate by considering the various point of views of the four other programmes. This is beneficial because in their future job they will then be prepared to work effectively together, and will be able to make use of each other's expertise and points of view in interdisciplinary teams. For this reason, it may also be valuable for lecturers to develop their education in cooperation with other programmes: it creates the opportunity to share expertise and everyone can make contributions based on their content related and shared qualities.

First of all, in order to reach this ambition, it is necessary to gain insight into what the commonality in the profiles of the five BFM programmes is. This analysis resulted in an overview of thirteen clusters of overlapping themes, such as Marketing and Sales, Entrepreneurship, Management & Organisation and Information Technology (IT) (Faculteit BFM, 2016). The aim is to cooperate based on the outcomes of future-oriented education. In the academic year 2016-2017 the decision was made to start with the development of joint modules by almost half of all 200 lecturers of BFM during the so-called 'dune days'. Lecturers had the freedom to re-create their modules by implementing their own wishes and methods. As a result, a lot of energy was created and unexpected new ideas and initiatives were developed, such as:

- lecturers within the expertise area 'IT' ascertained that IT is an inherent part of several modules. Because of this they wanted to create a connecting role with the realisation of an IT-landscape which brings all business areas together and is available for all BFM programmes. In addition, every programme can provide the IT-landscape with data, which will result in a Department-wide database.
- 'Accounting & Control' lectures linked the knowledge and skills which students need to learn in this area to the COSO-model: a frame of reference for internal control and management. This model shows students how the expertise areas are related, what purpose is linked to reach certain competencies and how they can put this into practice.
- the expertise area 'Research' discovered that the Marketing Programme uses the 'H-model', a model that is useful for all programmes. This model gives insight into the complete research process, which is relevant for all higher education students, and gives clear guidance for doing practice-based research (See Figure 1).

H-Model for an assignment of a company / entrepreneur

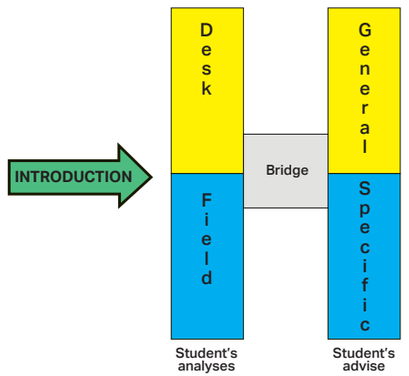

Figure 1. The H-model for practical research.

These ideas confirm the overall experience of almost all lecturers during the 'dune days': satisfaction of having the opportunity to take initiative and pleased about the exchange of information with peers from other programmes. In order to achieve the common organisational implementation, the lecturers would like to have an unequivocal framework.

The concrete development of the joint modules for the first year took place in the academic year 2017-2018 during the four 'development days'. Content and didactics of each module, supported by programme managers and team leaders, were developed in accordance with a communal educational framework (BFM, 2018) with design criteria, an assessment guide and an unambiguous, modular structure. Each development day had a specific schedule:

1. inform and get to know development teams;
2. compare learning outcomes and set up a module outline;
3. design modules based on design criteria, a module description and an assessment matrix;
4. establish learning activities by using a tool for a blended curriculum design (developed within THUAS).

During the development days there were also experts in attendance to support the development teams with regard to different areas, e.g. testing, formulating learning outcomes, blended learning.

A crucial element within this development is student counselling. In the first semester of the first year this will be part of the 3 European Credits (EC) project module. The introduction of each study programme is organised separately so that students have the opportunity to really connect to their own programme. Next, students will work together in interdisciplinary teams in a business game. In addition to creating awareness about the other disciplines, it also serves to raise the profile of each programme. Coaching has an important role for the students with regard to gaining interdisciplinary, academic and cooperative skills. Each student has a supervisor/coach as contact and will create a personal portfolio within a digital environment. The content of the portfolio will be regularly discussed with the supervisor/coach. In the long term the portfolio can be used as a valuable resource with regard to designing the student journey of the student.

Commonality in the programme profiles of BFM

The opportunities of the Department-wide cooperation for the long term are brought together in a document analysis. The document analysis shows all the content overlapping elements of the five programmes of BFM. The analysis was done in 2017 based on the national profession and competency profiles, and end qualifications of the five programmes of the Department[1]. The documents give a high degree of direction to the content goals of the programmes. The expectation is that this document analysis results in a clear overview of commonality in the challenges and descriptions of competencies within the business area.

The variation of the five documents turned out to be quite broad regarding size and details, because there are no required standards. How the documents are established is mostly the same: from national committees in cooperation with stakeholders from related programmes in the Netherlands. In all cases they are based on analysis and reports from the business sector. Only the Accountancy Programme has a strong interconnection with the professional association and has to work with a specific legal framework. The national programme profile of Finance and Control is based on a vision document of the professional association. A similar relationship with the professional association is not described in the other three documents. This is understandable because the business sector of these programmes is broader and more diffuse than the other two programmes. All documents include descriptions about the relevant developments and trends in the business area.

The document analysis took place in the following three steps:
1. list statements of important challenges in the business sector and required competencies of the graduates in the business context.
2. a division of the statements in themes.
3. in the document the statements were combined and compressed to present compact, common phrases.

1 These are:

1. Eindkwalificaties accountantsopleidingen 2016 and Beroeps- en opleidingsprofiel HBO-Bacheloraccountancy-opleidingen, 2017.
2. Landelijk Opleidingsprofiel Finance and Control, 2016.
3. Commerciële Economie: de blik naar buiten; Landelijk Beroeps- en Competentieprofiel Bacheloropleiding Commerciële Economie, 2012.
4. Framework Competencies IBMS: International Business & Management Studies International Business and Management Studies, 2010; Core and Comparison Set, 2016.
5. Beroepsprofiel Small Business en Retail Management, 2014.

Results

Step 1 resulted in 187 statements about challenges and 152 statements about the required competencies.

Step 2 lead to three themes of the statements about important challenges.
The description of the end level of the competencies resulted in six themes.

Step 3 resulted in compact phrases, which are shown in Figure 2.

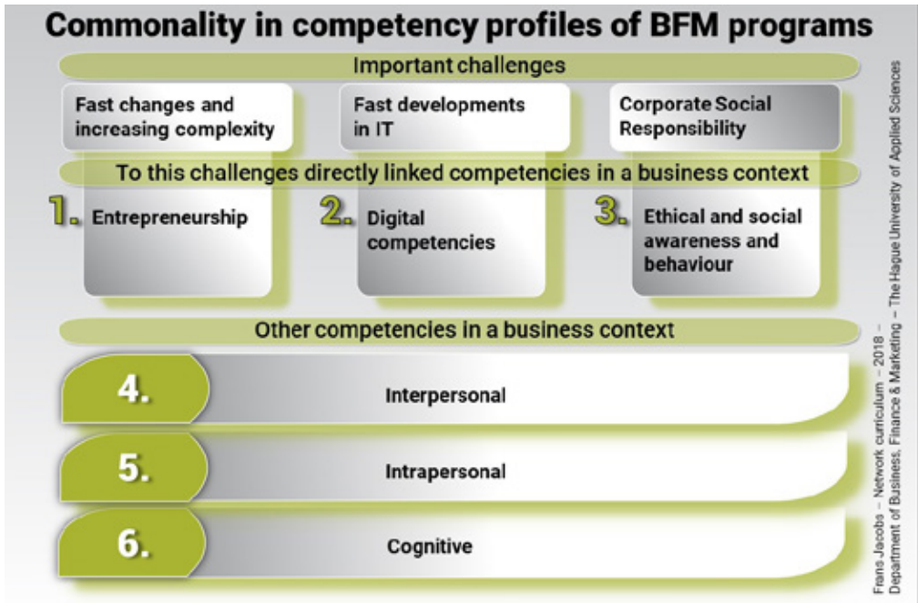

Figure 2. Commonality in challenges and competencies in the competency profiles of the five programmes of the Department of BFM.

First of all, three important challenges for business professionals are mentioned in several profiles:

1. Fast changes and increasing complexity in the network society of a globalised world.
2. Fast developments in information services and IT that becomes more important.
3. Corporate Social Responsibility including sustainability and accountability that put important new demands to profit and not-for-profit organisations.

Directly linked competencies to these challenges in a business context are:

1. Fast changes and increasing complexity are met by Entrepreneurship, especially being future oriented, flexible, proactive, creative and innovative.
2. Fast developments in information services and IT are met by comprehensive digital competencies.
3. Corporate Social Responsibility including sustainability and accountability are met by Ethical and social awareness and behaviour of the business professional.

Other competencies in the business context are:

4. Interpersonal competencies, such as communication and social skills, constructive and connecting collaboration and awareness of cultural differences. Many texts emphasize these attitudes, skills and capabilities of business professionals.
5. Intrapersonal competencies, such as self-reflection, the ability to learn and personal leadership.
6. Cognitive competencies, such as explorative and conceptual capacity, critical attitude and a comprehensive approach.

Possible next steps

The model which shows the commonality of BFM (Figure 2) gives direction to the question of which parts within the curricula of the different programmes can be developed and implemented in cooperation with each other. However, after the development of the joint modules of the first year, the next question is in how this helps to take the next steps.

Based on the common competencies within the model, diverse Department-wide modules can be developed. In this manner a wide range of modules come into existence where students can make their own choices about modules and have the opportunity to follow their own path: the student journey. Supported by strong student counselling, students will be given the possibility to strengthen their own profile within their programme. The students will get the chance to decide for themselves where they want the focus of their programme to be, something which supports the aim of developing the talent of the individual (Thunnissen, 2016). This has an important contribution for the future job market, (as explained earlier) in that they require flexible professionals with a clear profile who intend to bring added value. At the same time, this can contribute to strengthening or accomplishing more intrinsic motivation amongst students, such as proved in the Self-Determination Theory of Ryan and Decy (2000; 2017). A feeling of autonomy, competency and connection are three basic needs of students, which, if achieved, form the foundation for intrinsic motivation.

The Department-wide and programme specific modules are developed in a modular structure in order to keep the curriculum future-oriented and adaptive. All programmes use the same organisational standards (such as period, duration, structure), so students will actually have the possibility to build their own student journey. In addition, it allows modules to be renewed quickly resulting in up-to-date curricula, and students will be educated by learning about the most current developments (SURF, 2016).

What does this look like in practice?

BFM has chosen for a Department-wide modular structure in which each programme decides on its own curriculum and cooperates with other programmes where possible. Each programme maintains its own so called CROHO-number (Dutch: *Centraal Register Opleidingen Hoger Onderwijs; the National Register for programmes in Higher Education*) and applies their end qualifications. Per programme there will be certain modules that are mandatory for students to meet the final criteria of their programme. Additionally, each student can choose either Department-wide developed modules or modules offered by one of the other programmes. This way each student can build an individual student journey. In this manner every programme will keep their own individual character linked to their own national requirements, which also lead to the specific diploma per programme. Each module contains 3-EC or a multiplicity of this and every study year is two semesters (this is in line with the University-wide educational framework and vision, De The Hague University of Applied Sciences, 2017). The same development criteria and assessment guide will be used when developing the modules. The learning outcomes of the Department-wide modules are determined together, and in this way can also be used in different programmes.

Finally, the competencies of Figure 1 can be implemented into learning tracks through all the programmes within the Department, and perhaps even in other courses within the University of Applied Sciences. An example is a research track, wherein competencies such as critical thinking can be implemented by diverse programmes. In a research track (including the graduation project) it is valuable with regard to quality as well as efficiency for lecturers of diverse programmes to connect and share expertise. This is also the case for student guidance and communication skills modules.

What does this look like in practice?

Now BFM is actively developing (the learning track) student guidance. This is being done based on a student-guidance vision where students work on improving their self-development and self-management skills. BFM distinguishes the following three goals:

1. Learn to Learn – Gradual construction from close guidance of the learning process to more self-management.
2. Professional development – Insight into one's own development with regard to one's own talents and ambitions with respect to the future business sector.
3. Guidance of the student journey – Valuable information resources with regard to the range of modules from which students can choose, combined with a coaching approach based on content and learning strategies.

Most of the BFM students come from a previous educational system that follows an instruction-based methodology. This makes it a challenge for BFM to establish a well-organised guidance structure within the educational reform. Research (Jolles, 2016) shows that the brain of a human continues to develop long after the twentieth year of life. The pre-frontal cortex in particular, which is important for overview and planning, develops up to the 25th year of life. And around self-determination and self-management important developments within the brain continue to occur. This implies that a large number of the incoming students are not or not sufficiently able to have a good overview of the disadvantages and advantages of their choices in the long term. From our own research (see chapter of Hensel, Jacobs and De Jong in this book) it can be inferred that, depending on the ability of the student to work autonomously, a gradual transition from instruction-led to question-led methodology needs to take place. The most important task is to realise the goal commitment of the student.

Conclusion

This chapter explains what the ambition of the Department of BFM is and in which manner the Department-wide educational reform will be achieved. In our eyes it is essential to take small steps, such as working in the same structure, developing modules together and setting up a student guidance learning track, in order to realise great progress. Two elements are of the utmost importance: the role of the lecturers and cooperation with the business sector.

The role of lecturers
Lecturers have a vital role and it is important that they have enough space and time to develop or maintain their strengths in order to develop this educational reform (see chapter of Potting, Frie and Jacobs in this book). It is a challenge to continue to focus on the profiling and business sector, while on the one hand developing modules Department-wide and on the other hand maintaining their own programme. The governance structure within the University of Applied Sciences does not contribute to the cooperation between programmes. Within the Department we can see that it is difficult for the lecturers to take into account all of the requirements and experiences,

such as competencies, programme profiles, end qualifications, CROHO- and NVAO-requirements (*Nederlands-Vlaamse Accreditatieorganisatie; the Accreditation Organisation of the Netherlands and Flanders)*, evaluation- and NSE-results (Nationale Studenten Enquête; National Student Survey). This is very understandable because altogether it forms a complex whole. Requirements need to be fulfilled, but at the same time it is of the utmost importance to push borders and to cooperate on a Department-wide level. In addition, it is a challenge with the new educational reform to find a balance between what at first sight may seem like conflicting interests, such as on the one hand Department- and University-wide frameworks, organisation and structures, and on the other hand the passion, energy and autonomy of the lecturers.

It is shown that the professionalisation of lecturers regarding concrete behaviour and ownership of the innovation are of utmost importance for success: "The most successful innovations have in common that they are directly linked to the professionalisation of lecturers or intended changes in teaching methodology. These are innovations where the vision is being translated into concrete behaviour of both teachers and students (Waslander, 2011). "Teachers constitute the most important capital which the University of Applied Sciences has and "(…) the ownership of the innovation rests largely with the individual teachers" (Van der Klink, 2012, p. 15). Within our educational reform lecturers were given flexibility with regard to developing the requirements and were encouraged to think out of the box and work across the various programmes. Lecturers are key figures and need to be facilitated to use their expertise to look to the future and to develop future-oriented learning environments. Support and foundation from the management and continuous and complete communication is essential.

Cooperation with the Business sector

Cooperation in co-creation with the business sector is necessary in order to grow towards becoming an adaptive professional (see the chapter of Jacobs, Bleeker, and Schaaphok in this book). It is precisely our partners in the business sector who are confronted with the newest trends and developments. Until now the focus has been mainly on looking inwards about developing our educational reform: cooperation within the Department; between the programmes. In our opinion, this internal focus was needed: the attention to programme profiles, to culture and the expertise of the lecturers provided the opportunity to take the first steps together within a far-reaching educational reform. The crucial next step will be looking 'outwardly': cooperation with the business sector. It is with this in mind that BFM is researching the possibilities of allowing students to graduate with different types of business products (Losse, 2016), and the necessary cooperation with regard to this within the Department as well as with the business sector. Are there, based on the similarities of the programme profiles, possibilities to develop the graduation project together? Business products can then be achieved on a more realistic level and with more of a link to actual business practice.

A future-based personalised learning environment is the answer to the challenges in a world which is changing fast. This chapter describes how Department-wide BFM will realise educational reform. In order to achieve the ambitions of BFM we contend that small steps wherein lecturers cooperate across programmes and inspire each other from their own perspective and expertise is essential. These small steps can be the overture to cooperating on larger projects, such as the integration of business products. It is important to work from the character and the culture of the five programmes, the requirements from the business sectors, the business contexts and the needs of the current and prospective students. Cooperation within the Department is therefore the first step, but collaboration with the business sector is an important next step in order to reach the ambition of BFM.

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12. Designing a Network Curriculum in Higher Education

An Enhancement of Intrinsic Student Motivation?

Rainer Hensel, Frans Jacobs, and Tiffany de Jong

Increasing students' motivation in higher education by designing a specific curriculum has always been a challenging but very complex process. The Department of Business, Finance and Marketing (BFM) of The Hague University of Applied Sciences (THUAS) initiated a redesign of the curricula with the major goals of increasing flexibility of learning opportunities and offering students a more motivating, inspiring and richer diversity of learning experiences. In the literature of learning in higher education this has often been labeled as 'offering extracurricular learning opportunities'. The redesign of the curriculum implies that the new one will result in an enhancement of the flexibility of the curriculum, by offering learning opportunities beyond the borders of specific programs like marketing, finance or entrepreneurship and retail management. The richness and diversity should create flexible platforms, offering students the possibility to enrich their career choices to design their own personalised career path, hopefully maximizing the possibilities for their talent development. However, very little is known about the relationship between the students' satisfaction with extracurricular learning opportunities, aiming at the personalisation of students' career choices, and their motivation. In this chapter we describe our research into this relationship between student motivation and learning environments.

Theoretical considerations

Jobs and professions comprise different situations with different job demands. Over the last decades a sharp increase of the heterogeneity of job demands has taken place, leading to a much higher variety of job demands within the same job or profession: 'within-job or profession differences' (Tett & Burnett, 2003; Al Ariss, Cascio, & Paauwe, 2014). Organisations that have to cope with a severe, global competition demand strong innervational capacities and strategic implementation flexibility. These latter capacities are often labelled as 'organisational agility', which is closely related to individual capacities of managers and professionals who in time activate a broad spectrum of diverse personal qualities or competencies (Nijssen & Paauwe, 2012).

Consequently, curricula in higher education with a very limited spectrum of subjects will not develop professional qualities to perform in an agile way. It is unlikely that curricula

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Hensel, R., Jacobs, F. & De Jong, T. (2018) Designing a network curriculum in higher education: An enhancement of intrinsic student motivation? In F. Jacobs, & E. Sjoer (Eds.), *Inspired to change: A kaleidoscope of transitions in higher education*. The Hague, The Netherlands: The Hague University of Applied Sciences.

with a limited spectrum of subjects will provide students with the necessary diversity of competencies to cope with a strong heterogeneity of job demands. It's hardly surprising that quite some serious criticism has been expressed that a limited diversity of subjects has been offered within higher education and professional development projects, leading to a limited subject-related diversity of expertise and skills, paying too little attention to the heterogeneity of demands within job professions (Tett & Burnett, 2003; Kell, Rittmayer, Crook, & Motowidlo, 2010).

Two relevant frameworks: The Person-Environment-Fit (PEF) and Ability-Motivation-Opportunity (AMO)

Two theoretical frameworks exist, supporting the hypothesis that increased flexibility and possibilities for extracurricular learning activities could be very valuable for higher education. The *Person-Environment-Fit (PEF)* framework has taught us that specific personality traits are related to an intrinsically motivated performance in specific work- and learning environments (Smith & Schneider, 2004). By example, if an accountancy student wishes to develop advisory or entrepreneurial networking skills, an excellent or positive performance is closely related to high(er) scores on the personality traits extraversion. According to the PEF framework, individuals with higher scores on extraversion enjoy frequent social interaction, leading to a positive or out-performance in work-or learning environments with frequent social interactions. Figure 1 shows this relationship, using the example of the personality traits extraversion:.

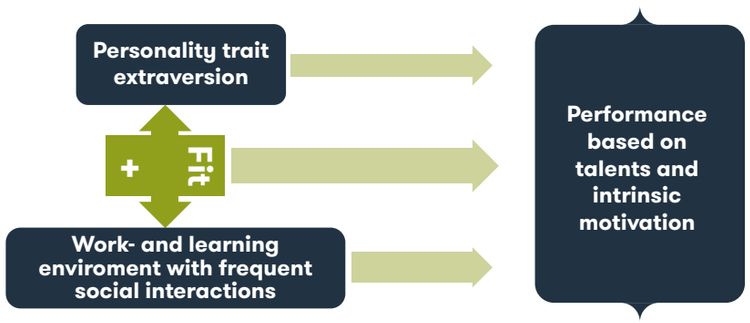

Figure 1: The PEF framework (Smith & Schneider, 2004)

Many curricula, however, do not offer a learning and work environment with frequent social interactions. Consequently, it will be harder for students with talents and capacities based on extraversion to manifest themselves enough.

Furthermore, the *Ability-Motivation-Opportunity (AMO)* framework has indicated that personal qualities and talents will only manifest themselves as effectiveness enhancing capacities when the work or learning environment offers the opportunity to carry out critical successful behaviours (Siemsen, Roth, & Balasubramanian, 2008). For example, if marketing students need to develop specific social sales skills and only a theoretical course is offered focusing on cognitive reproductive learning, talents and capacities related to extraversion won't manifest themselves. This is based on scientific insights that active learning opportunities with frequent social interactions are demanded for the manifestation of talents and capacities related to extraversion. Examples of these active learning opportunities are real-time social skills trainings in which apparent and overt behaviours are trained and developed.

Goal commitment

There is a wide scientific consensus that goal commitment is of utter importance. This holds for a learning performance in higher education as well as for organisational work performance (Latham & Locke, 1991; Vangrieken, Meredith, Packer, & Kyndt, 2017). This is especially the case when the learning and development process is characterised by collaborative learning and by complex interdependencies between teachers and students (Johnson & Johnson, 2009)

Students' activation

Furthermore, the theoretical framework of Ryan & Deci (2000) has shown that stimulating students during lessons to participate in a highly active way has an important positive impact on learning effectiveness in this educational context. Based on the Ryan & Deci (2000) framework, the relevance of the dimension 'activation' in this research context was analysed.

Methodology and model development

Based on a qualitative inventory and the theoretical considerations above, the following five latent variables or dimensions were used in this research:

1. *Intra-psychological aspects of students' motivation*: measures of this dimension were the perceived satisfaction with their talent development, the enjoyment whilst studying, and the feelings of being stimulated in professional development.
2. *Students perceived flexibility of learning opportunities*: students' satisfaction with *extra-curricular learning opportunities* beyond the boundaries of specific programs.
3. *Activation:* students' perceived stimulation within the curriculum of one program to *actively participate during the lessons*.

4. *Goal commitment:* students' general *goal commitment* towards learning goals of the educational material presented during lessons, students perceived the transparency of the valence and instrumentality of subjects in the curriculum for the prospect workplace.
5. *Digitalisation:* students' perceived quality and possibilities with respect to *digital learning opportunities.*

The core of this study is the analysis, whether significant relationships exist between the intra-psychological aspects of students' motivation with the dimensions 2. to 5. listed above.

Research question
Do students' satisfaction with extracurricular learning opportunities positively impact intra-psychological aspects of students' motivation, with higher forms of activation, goal commitment and the perceived satisfaction with the digitalisation of the curriculum supporting the strength of this positive impact.

A questionnaire was set up containing questions about these five variables.
The number of students participating in this study was 618, all of whom were part of five programs within the Department of BFM of THUAS. Twenty-three cases were deleted from the data-file due to a high number of missing values.

To facilitate the reader, in this chapter we will label the latent variables as dimensions. In the model, we will analyse and test the relationship of *intra-psychological aspects of students' motivation* with*:*

1) students' satisfaction with extra-curricular learning opportunities
2) students' satisfaction with lessons stimulating activation
3) goal commitment
4) students' satisfaction with digitalisation

By applying a structural equation methodology, the structure and the strength of the impact between the dimensions will be analysed. The strong advantage of applying this methodology is that it is 'theory driven' not 'data driven'. This means that it can be used to test the validity of models.

Testing the validity of the five dimensions
The first step in testing and analysing the model is verifying the validity of all the dimensions and their measures. The method is called a confirmative factor analysis, as it has to confirm the underlying structure of the model. This analysis revealed that the dimension *activation* was *not* measured in a valid way.

Results

Final model
The final model was constructed including the following dimensions: *digitalisation, satisfaction with extra-curricular learning opportunities, goal commitment* and the impact of these three dimensions on *the intra-psychological aspects of students 'intrinsic motivation.*

To explore whether the research results can be generalised to the whole student population, we analysed whether significant differences existed for students studying in the first two years, when compared with students from the third and fourth year. We labelled this variable as 'Year 1&2 vs. 3&4'. This was done to analyse whether the impact or effect of these dimensions differed for the groups of students studying in the first two years, when compared with students studying in the third and fourth year.

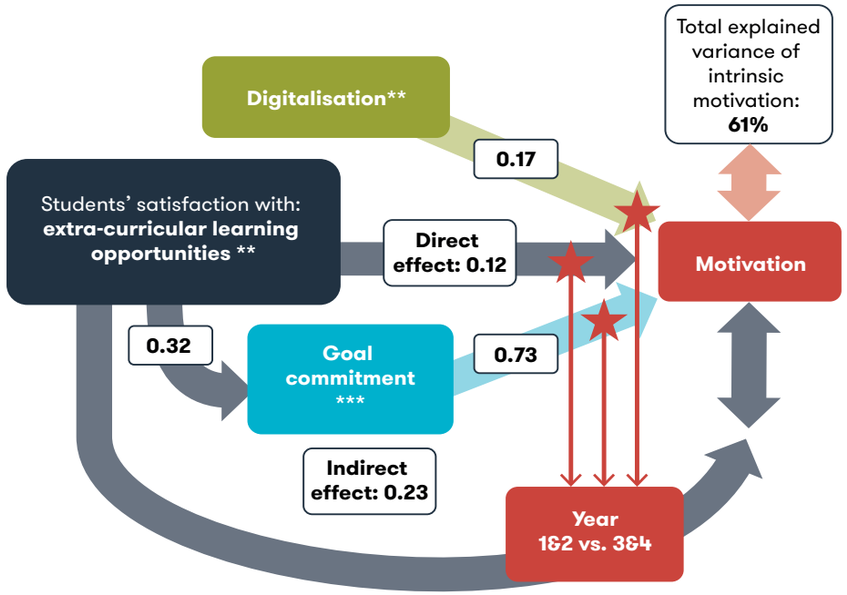

Figure 2: The (final) full model

Major, overall conclusion

Comparing year 1 & 2 with year 3 & 4
As explained earlier, the three vertical (red) arrows are included in the model to check whether the impact of digitalisation, satisfaction with extracurricular learning opportunities and goal commitment would differ for students studying in the *first two years*, when compared with students studying in the *third and fourth year*. This is the major reason that the control variable 'Year 1&2 vs. Year 3&4' is included in the model.

This has important implications; no conclusions are allowed without specifying that the *negative impact* for 1) *digitalisation*, and the *positive impact* for 2*) extracurricular learning* and 3) *goal commitment*, especially holds for students studying in year three and four. Based on this insight, it's very important to highlight that if one wants to enhance the intra-psychological aspects of students' motivation by designing a network curriculum within the economic domain, this will probably only have a positive effect for students studying in the third and fourth year.

Results on the relationship between motivation with extracurricular learning opportunities, goal commitment and digitalisation
The structural equation analysis showed that the model, presented in Figure 2, is valid and forms a solid basis for the theoretical interpretations of the impact of the three dimensions on the intra-psychological aspects of students' motivation, such as satisfaction with talent development, enjoying one's study, etc.

Indirect effect
The effect of '*satisfaction with extracurricular learning opportunities'* is a complex one. Figure 3 reveals that there is a smaller but significant direct effect of this dimension on intrinsic motivation. But there is also a strong indirect effect.

The relevance of the model revealing an indirect effect of the dimension 'satisfaction with extracurricular learning opportunities' on intrinsic motivation is very easily explained by the following thought experiment: *Just imagine in Figure 3 that one would remove the middle sprocket with the title 'goal commitment'. The whole impact of extracurricular opportunities would vanish, leaving only the small direct impact.*

Figure 3. The indirect effect of the dimension 'goal commitment' on motivation.

What does this indirect effect mean?
The indirect effect of the variable extracurricular learning opportunities should be interpreted as follows: the influence of the flexibility of learning opportunities on motivation follows a path, which is explained below.
Higher averages of students' satisfaction with the flexibility in extracurricular learning lead to higher averages on goal commitment.

Consequently, high averages of goal commitment have a very strong impact on intrinsic motivation.
The direct effect of flexibility of learning opportunities on motivation is very small. This indicates that if one wants to influence intrinsic motivation by the increase in extracurricular learning opportunities, this should always be combined with an enhancement of teachers' capacities in achieving a strong learning goal commitment.

Most salient
The most salient result of this study is that the effect of extracurricular learning activities, within the economic domain but beyond the borders of specific educational programs on students' satisfaction, is indirect. The model reveals a very strong effect from goal commitment on the measured (*inner-psychological aspects of*) intrinsic motivation. This means that only designing a network curriculum will have very little effect, *unless* it is combined with a stronger goal commitment. Increasing the goal commitment is likely to have a very high impact on motivation.

A minor but still significant positive effect exists between students' satisfaction and digitalisation. The impact of digitalisation, measuring students' satisfaction with the use of digital learning opportunities, is relatively small but significant (0.17), revealing only a smaller impact on intrinsic motivation. As explained earlier, the effect of digitalisation on intrinsic motivation is positive for the group of students studying in the first two years, and negative for students studying in year three and four. This indicates that different pedagogical techniques and distinctive designs of the curricula should be deployed for these two groups of students.

Further elaborations on the research results
From a theoretical point of view, it's interesting to see that the results of the studies support the theoretical insight that student motivation is best defined by the interaction between push and pull variables. The push variables in this case being the intra-psychological measures of motivation, the pull variables are the characteristics of the learning environment. This is very much in line with theoretical frameworks described earlier, such as the AMO framework (Siemsen, et. al., 2008) and the motivation/goal setting model (Locke & Latham, 2002). Moreover, the model shows, just like in the field of organisational behaviour, that the experienced meaningfulness of the learning environment impacts the intra-psychological aspects of motivation (Chalofsky & Krishna, 2009).

If an enhancement of a student's motivation is the strategic educational aim, it has to be combined with an increased learning goal commitment. As explained before, learning goal commitment is closely related to the transparency of the experienced valence and instrumentality of the learning content for the prospective work context. For example, entrepreneurial students often prefer a very active learning environment with little affinity for abstract data analysis. Consequently, teachers in finance and accountancy should highlight the importance and relevance of these financial skills for entrepreneurial effectiveness.

This is often labelled as the strength of the knowledge transfer, meaning that high transparency on the valence and instrumentality of the learning material for the future work, presented by the curriculum, increases the chance that learned expertise and skills will be transferred to the actual workplace (Kessels, 2001; Kessels, 2001; Kessels & Kwakman, 2007).

Organisational learning and strategic competence development in higher education
The considerations described above highlight the importance that the restructuring of the curriculum should be supported by strategic human resource development programs or organisational learning. In this context two competencies seem to be core for the effective implementation of a network curriculum:

1. *An enhancement of teachers' visionary and dialogical career coaching competencies on learning-career choices, offering a demand and personal growth based learning environment, stimulating and inspiring students to develop a strong focus on the search process for extracurricular learning activities to develop individual talents and capacities.*
2. *Enhancing teachers' pedagogical, visionary qualities to communicate the valence and instrumentality of specific subjects to a heterogeneous group of students, originating from a broad diversity of curricula.*

The limited focus during a restructuring process is a frequently occurring negative organisational phenomenon. Restructuring organisations is a regularly applied management tool when new organisational strategies have to be implemented. The limited focus, mainly on the design and implementation of a new structure, has an important implication: *the underestimation of the importance of learning interventions in organisational development or in human resource development* (HRD). Organisational learning of HRD-interventions is necessary to equip members of the organisation, i.e. teachers, with the strategically demanded core competencies or professional qualities to realise a new strategy. Neglecting the necessity for human and organisational development to provide professionals with the necessary new competencies has a name: '*structuritis*' (Ten Have, Ten Have, Huijsmans, & Van der Eng, 2015). Research on this phenomenon by Ten Have et al. (2015) has shown that implementing a new organisational strategy without the strategic organisational development of the necessary core competencies, proves to have a very low effectiveness.

Transformational leadership qualities of tutors aimed at students' intrinsic motivation
The key issue in higher education is competence development, with knowledge transfer and knowledge innovation being a quite elementary part of this process. This is a highly intellectual process. As explained earlier, the results reveal that tutors communicating a strong vision on the valence and instrumentality of expertise and competency have a very high impact on intrinsic motivation. Also, intellectual stimulation and recognizing individual talents by individual consideration in the learning process are demanded. Intellectual stimulation and individual consideration of talent development are core dimensions of transformational leadership (see for an overview in García-Morales, Jiménez-Barrionuevo, Gutiérrez-Gutiérrez, 2012). Research on transformational leadership qualities and also the theoretical *Person-Environment-Fit (PEF)* framework has shown that the effectiveness of individual learning and innovation capacities of self-directed professionals, such as tutors, highly depends on these transformational leadership qualities (see for an overview in García-Morales, et al., 2012; Lorsche & Morse, 1974; Quinn, 1991):

- *a visionary, participative and empowering leadership style*
- *a participative leadership style that can be characterised by a stimulating and inspiring vision*
- *a leadership style aiming at empowering others to use their talents and individual capacities to analyse complex and ambiguous causalities*
- *little or no usage by leaders of coercive position power, associated with a top-down assertive leadership style with a strong focus on the consolidation of hierarchical positions*

Situational teaching skills, following a contingency approach
As explained earlier, the impact of goal commitment, satisfaction with the flexibility in extracurricular learning and digitalisation differ for students studying in the first two years, when compared to students studying in year three and four. The core issue is: students in the first two years could benefit from a supply-driven, directive teaching style. Students in year three and four would probably benefit from a coaching teaching style that demands transformational leadership qualities.

Recommendations

Designing a network curriculum by increasing the possibility of extracurricular learning opportunities in higher education could have a positive impact on students' motivation when it is combined with activities to increase goal students' commitment. This depends on teachers' qualities to communicate the valence and instrumentality of the learning possibilities offered for the prospective work environment.
This is a complex issue however. Teachers from different educational programs, even in the same domain, have a different orientation on existing learning opportunities within one specific program. Excellent coaching skills by tutors are important. These coaching skills are necessary to support students in the process of envisioning extracurricular learning opportunities when important career choices have to be made.

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13. Future-oriented Learning

Towards Systematics for Permanent Renewal in Higher Education

Frans Jacobs, Dennis Bleeker, and Henk Schaaphok

Introduction

E-Commerce came in at the end of the last century. As early as 1996 we had a Dell.com computer delivered to our doorstep and set up at home. Due to technological possibilities, developments in this area have moved very quickly since then. In 2015 there were more web shops than physical stores in the Netherlands. In 2016, the turnover of Bol.com grew by 26.6% and exceeded € 1 billion. This year it looks as if Jeff Bezos, CEO of Amazon, will be the world's richest person (http://money.cnn.com/2018/01/09/technology/jeff-bezos-richest/index.html). Down on the streets the vans of the supermarket chains and delivery services for online orders cannot be ignored.

A two-year case study at a programme for sales and services to consumers in a University of Applied Sciences made it clear that, despite the great dedication and an innovative attitude of teachers, in 2008 education was still almost completely directed at the physical aspects of the sales profession (Jacobs, 2013). it was not feasible at that time to educate students at a bachelor level for e-commerce, the online version.

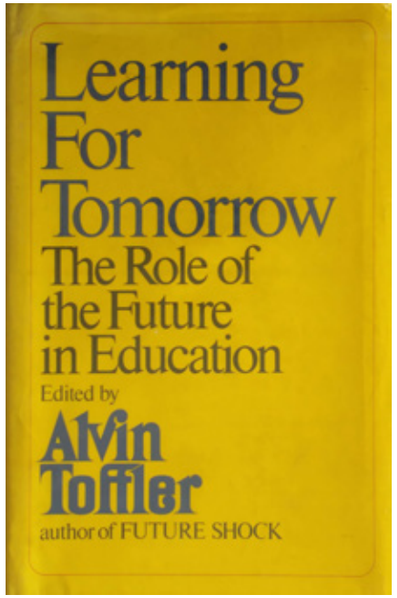
From these observations, relevant questions are: In which way can higher professional education programmes educate in a future-oriented way? What does this mean for the way in which they renew learning modules and curricula? The latter is the leading question for our research.

Long before the rise of the personal computer and the breakthrough of the internet, Hannah Arendt wrote in her essay 'The Crisis in Education' (1961) that it has always been difficult in education to find a balance between past achievements and legacies and questions and challenges of the now. On the one hand it does not make sense to stick to the old, whilst on the other we cannot blindly rely on the new. According to Arendt, teachers continually experience a crisis in their profession because it is so difficult to navigate between the past, present and future. She believes that it is in the

When citing in APA, please refer as follows:

Jacobs, F., Bleeker, D. & Schaaphok, H. (2018). Future-oriented learning: Towards systematics for permanent renewal in higher education. In F. Jacobs, & E. Sjoer (Eds.), *Inspired to change: A kaleidoscope of transitions in higher education*. The Hague, The Netherlands: The Hague University of Applied Sciences.

nature of the human condition that every new generation is inserted into an old world, so that preparing a new generation for a new world can only mean that newcomers are deprived of their own chance of the new.



Alvin Toffler (1974) describes the consequence of this by means of an example:

"The primitive father teaching his son how to carve a canoe had in mind an image of the future his son would inhabit. Since he assumed that the future would replicate the present, just as the present replicated the past, his image of the future was just as a rich, detailed, comprehensive and structured as his image of the present. Yet when change struck, his imagery proved not merely obsolete but anti-adaptive because it left out the possibility of radical change." (p.5).

He opposes this and advocates future-oriented education. In *Learning for Tomorrow*, a book edited by him, dozens of examples are discussed.

Many decades later, the pursuit of innovation is dominant in both society and education. But how to give a forward-looking orientation a permanent place in educational development and then implement it? Are there step-by-step plans or systematics for this? At first sight such plans seem to be lacking in contemporary methods as mentioned in 'Educational Design Research' (McKenney, S., & Reeves; 2013), the 'HILL model' (Dochy, Berghmans, Koenen, & Segers, 2016), 'The SAGE handbook of curriculum and instruction' (Connelly, He, & Phillion, 2013), and 'The Journal of Curriculum Studies' (http://www.tandfonline.com/loi/tcus20). The Dutch education system does not provide for a systematic renewal of the curriculum (Onderwijsraad, 2014a). According to the Dutch 'Onderwijsraad' required innovations do not take place at all, they are too late or too isolated. By involving external stakeholders in the content of curricula and the formulation of competences at the beginning, higher professional education strives for external consistency (Huizinga, Handelzalts, Nieveen, & Voogt, 2014). The question, however, is how can these snapshots, with intervals of years, be converted according to a specific systematic into a continuous process of renewal of curricula and educational modules in order to be up-to-date and future-oriented.

Many are permeated by this interest. For example, future orientation is an important goal in the educational framework of the Department of Business, Finance and Marketing (BFM, 2018, see the chapter by Jacobs, Haenen and Lentz in this book).

This chapter is a representation and reflection of our research among 40 respondents at The Hague University of Applied Sciences (THUAS) on an intuitively developed working method for future-oriented curricula. In this chapter we will discuss this topic, investigate the method of research, present the results, and finally, reflect on them.

An intuitively developed working method

The Marketing Programme (Commerciële Economie, CE) has more or less intuitively gone through a process to develop innovative educational modules. Bleeker and Schaaphok studied big data as an important phenomenon in order to develop new educational modules on the basis of this, thereby contributing to the future-proofing of retailers in this area. Their working method comprised six steps, namely:

1. Literature study, conducting interviews with computer scientists, as well as visiting businesses and congresses, with the aim of charting the steps in the 'big data' process and the latest developments.
2. Determining missing applications for big data in the economic domain in the Marketing curriculum.
3. Companies were then asked to make available applications and develop joint education; this resulted in three new educational modules about big data[1], namely Social Media Analysis, Beacon Software, and Consumer Databases.
4. Each module was included in the curriculum as an optional course (e.g. as a minor) and was carried out for the first time together with the company.
5. The educational material was then (further) developed, with the module being provided by Bleeker and Schaaphok.
6. Finally, training those colleagues who would carry out the module in question. If applicable, the module would then be transferred to the regular programme.

To gain more insight into possible systematics for up-to-date and future-oriented curricula, we have investigated the question: *To what extent does the presented Marketing Programme method offer starting points for systematics for future-oriented education within the own educational context?*

1 A film was made of two of the three modules, which can be seen on https://www.youtube.com/watch?v=aHKmr-TTRHA and https://www.youtube.com/watch?v=sIoqUusjCLg&feature=youtu.be

Method

In order to gather insights for a refinement, expansion or other design of one or more possible systematics, we conducted research in two sessions among 40 colleagues. Preceded by a film about one of the three newly developed educational modules, the above Marketing programme method was explained during the meetings. Participants were presented with three theses on the recently presented Marketing Programme method. Participants were able to indicate on a questionnaire to what extent the method would offer starting points for themselves, and how clear and relevant they thought the presented working method was.

Respondents were then asked to speak in groups about the above question. The groups had to summarize the discussion in a pitch at the end.

After the meetings we were able to gather the most important statements based on the answers to the theses and the sound recordings of the group discussions and pitches.
In terms of content, the data were analysed by the authors according to the grounded theory method (Bryant & Charmaz, 2007). From the transcribed group discussions and final 'pitches' per group, a total of 50 statements about systematics for future orientation were collected. We have divided these into two groups: statements where there appears to be consensus, and statements that show a fundamental difference.

Results

The answers of the questions of the questionnaire reveal that participants found the pursuit of a method for future-oriented education very relevant. Most participants agreed with the proposition that the presented method was clear and offers points of application.

The results of the group discussions are described as follows, including some typical statements.

Preconditions for future-oriented education

Many statements do not directly relate to the systematic presented by us, but contain recommendations that are conditional to this. These preconditions relate to the vision of the programme, discussing evaluations, questions from the professional field, working with trend reports, making choices, the policy to be pursued, ethical issues, partnerships, support in the programme, and the development of teachers. An important element here was ensuring continuity and innovation in a cyclical process, and the question of whether this should be done at module or curriculum level.

Examples of these statements are:

- Choices have to be made on the basis of an educational vision.
- Make a distinction between content (which changes very quickly) on the one hand and method and structure (which are more stable) on the other.
- It is an important skill that everyone who uses trend reports knows what is important in them, what they are based on and what appeals to them.
- Pay sufficient attention to the ethical and legal aspects of future-oriented education.
- Provide clear preconditions for *cooperation with companies/organizations.*

Developing education together with the professional field

Many statements refer to the relationship with the professional field in the co-creation of educational modules and the question of how it can best be shaped. The importance of entering into long-term relationships with several companies and organizations as well as being vigilant about those relationships was regularly mentioned.

Examples of these statements are:

- Building long-term relationships and continuity is important for both parties.
- Provide for a broad spectrum of cooperation partners.
- Find the win-win; remember that we have a lot to offer because many organizations want to have input from young people.

- There is a lot of experience in co-creating with companies and organizations and it is essential to keep doing this. We have professional education and are not a school. However, the danger is that the hatches will quickly close again and everything will be settled internally.
- We need to develop skills for the choice problem: With whom do you work together and on which themes? And when will you let go and when will you continue?
- Being aware of the dangers of working with commercial companies; keeping a close eye on the various interests and risks. Realize that your own responsibility as a programme differs from that of a company.

As said before, participants seemed to differ fundamentally from each other about preferences for systematic A or B below.

Systematic A. Refinement of the step-by-step plan as described above

This section contains contributions from respondents for the further development of the step-by-step plan presented. We make a distinction between the preparatory work and the actual development and implementation of educational modules.

a) Methods to find out which new educational modules need to be developed (consisting of step 1, literature study and step 2, determining missing applications in the curriculum).

Other methods as a starting point are more conceivable than those mentioned, such as leading questions from the professional field and research of students.

Examples of this:

- *Step 1 and communicating well are the most important things. These are your bases and provide you with support.*
- *A question from practice can also very well be a starting point for the development of a new module. A counter must be provided for this.*

b) Further steps for developing a new educational module (consisting of steps 3 through 6).

Relatively few statements have been made about this; it mainly concerns nuances on these steps, such as changing the order of the mentioned steps.

Examples:

- *The order of the method should not be mandatory but remain flexible; it is more a mind map than a step-by-step plan.*
- *Step 3: A company is not always required, the expertise may already be available.*
- *Step 6 is not always necessary. However, teacher development is an important point.*

Systematic B. Permanent educational innovation

These are statements in which fundamental objections appear to the presented methodology in the step-by-step plan. This may involve a complete rejection of systematic A, suggesting or offering alternatives. The essence of systematic B is the view that rapid changes in society require rapid response. According to these respondents, this requires curricula and educational modules that have not been established in advance and must last a long time. This systematic requires the agility of both students and teachers.

Examples of statements are:

- Emphasize the general flexibility by focusing on students 'learning to learn', pro-activity, uncertainty tolerance and learning together of teachers with students.
- Provide for experimentation space in the regular curriculum; the world does not stand still, it takes too long to move from a minor to a fixed module.
- Make innovation part of the curriculum, because students conduct research into future developments.
- Uncover the field of tension that makes forward-looking education look difficult.
- Ensure continuity in innovation; it is a cyclical process where the question is whether you do this at module or curriculum level.
- Assisted teachers in dealing with uncertainty.

Recommendations

The research has yielded valuable new insights into possible systematics for future-oriented learning by higher professional education students. They bring us to the following recommendations.

Renewal frequencies in future-oriented learning
As prerequisite for future-oriented learning, is that a programme must make clear and coherent choices. This concerns a permanent orientation on current and future developments in the domain of a programme and the consequences for learning processes of students. Teachers are the main actors to embrace this orientation. Future-oriented learning by students is possible through support and guidance from future-oriented teachers. Innovation is the key concept here and teachers are the carriers (Van der Klink, 2012). As these innovations take place less internally and more in collaborations with professional in the field, they become more complex. In a process of co-creation, teachers and partners provide valuable contributions to jointly arrive at other concepts and new educational modules. Two studies on this subject (Ehlen, 2015; Ehlen, Van der Klink, Stoffers, & Boshuizen, 2017) show that it is of particular importance that teachers have the opportunity to take action. This concerns issues like collaboration, communication, courage, and decisiveness.

Permanent change is on the agenda as a way of moving along the directions and tendencies in society. However, we believe that the permanent questioning and changing of all aspects of education is undesirable and impossible. There are different types of change and each one has its own renewal frequency. Our conception of this is summarized in the four circles of Figure 1, from the highest to the lowest renewal frequency. Elements 1 and 2 are operational, elements 3 and 4 create conditions:

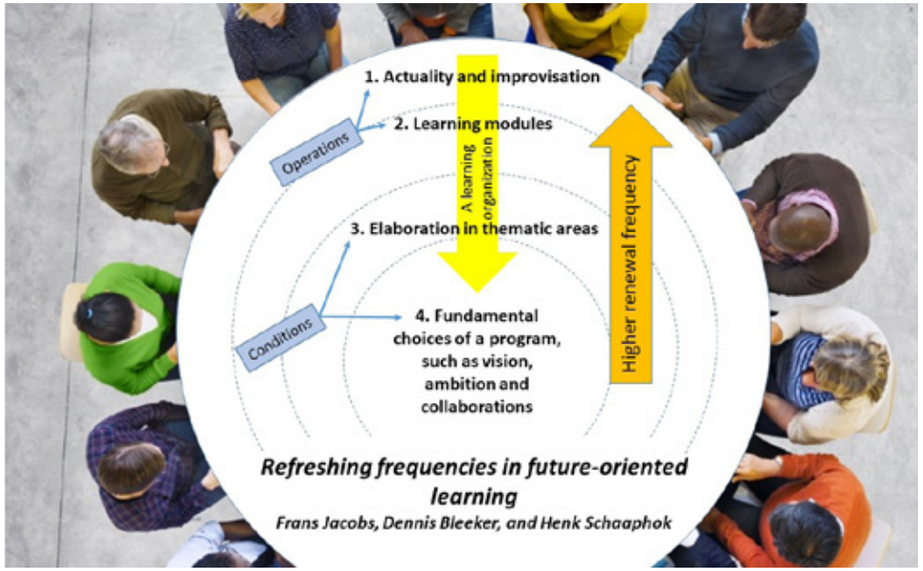


Figure 1: Renewal frequencies in future-oriented learning.

1. Actuality and improvisation within educational modules, a focus on the future, a way to stay up-to-date and challenge students with current case histories in which they are as much as possible the actors in authentic practical situations. The renewal frequency is minimal on an annual basis, but may vary from week to week, depending on the contribution of participants. Here, students have a strong 'sense of urgency' or 'gap' (Dochy et al., 2016) to come up with solutions for practical problems. This motivates, engages and helps them to come to a personal professional identity.

2. Educational modules as an elaboration of theme areas. Due to new, broadly established and robust trends new modules are being introduced and outdated modules are being phased out. This is done, for example, with a renewal frequency of once a year.

3. Elaboration in theme areas that indicate the broad outlines of the aspects that a programme wants to pay attention to. These choices are anchored for several years because they are conditional for the educational performance. Drastic changes in the work field can lead to a revision of the theme areas after careful consideration.

4. Fundamental choices of the programme have the lowest renewal frequency. This involves long-term elements such as vision, ambition and strategic partnerships with which the programme wishes to profile itself. These are long-term choices with profound consequences for all parties involved. These are choices that cannot be discussed at any time, but can change over a longer period of several years.

All elements move, figuratively speaking; element 1 runs the fastest, 2 less fast, and so on. Because the development as a learning organization must permanently adapt to changing requirements and circumstances, there must also be a movement from the outside to the inside. The organization learns from day-to-day practice and amends educational modules accordingly. In the intermediate term this will lead to changes to themed areas and over an even longer stretch of time this will lead to fundamental changes.

This classification can possibly help programmes, teachers, students and professional in the field to find some stability in an unstable world.

Developing education together with the professional field
The time of curriculum renewal as an exclusively internal activity is over (Onderwijsraad, 2014a). Higher professional education even has the legal task of establishing knowledge development between regional parties (De Onderwijsraad, 2014b). The real working environment of companies and organizations is necessary for students because they can immerse themselves in and identify with topical and real issues (Ileris, 2017) and can propose or realize solutions (Toffler, 1974). Long-term cooperative relationships in the interests of students are preferably characterized by diversity in order to achieve more limited dependency and realize multiple perspectives. This has important organizational consequences. Perhaps the most telling example is the breakthrough of an internal orientation. When combined with practical situations, education involves a spread of responsibilities and being able to deal with uncertainties and changes.

Refinement of the step-by-step plan presented
Significant refinements have been given for the presented systematic. The orientation to new developments can take place is several ways, not only by a literature study (see step 1 of the method followed at the Marketing Programme). For example, it can have the form of trend analyses, and on the basis of assignments and graduation work by students, it can also be in the form of requests for cooperation from companies and other organizations and contributions of alumni. A work field committee is important for education, but it is not enough to be attentive to robust new and future developments that can be broadly defined. Another refinement involves a faster turnaround time in the development of new modules.

Permanent educational innovation
In addition to the above, an alternative systematic is possible for permanent and rapid change in response to the increased speed of change and the choice to bring students into contact with this early on. This can be done at module level in the way of the renewal frequencies of Figure 1. An example is given in Textbox 1 about the module Marketing in the International Business and Management Studies (IBMS) Programme of the BFM Department.

Not on a modular level but on the comprehensive curriculum level, various programmes choose theme areas within which permanent innovation is possible. This is done on the basis of current cases of companies/organizations for which students design solutions. Examples are the HRM Programme of the Department of Management and Organization (see the chapter of Potting, Frie, and Jacobs in this book) and the Programme Industrial Design Engineering [Open] Innovation (IDE) of the Department of Technology, Innovation and Society (TIS) of THUAS (see the Hallenga-Brink chapter in this book).

"How can we familiarize students with the latest trends in marketing?"

We interviewed Hans G. Hoekstra, a marketing veteran and nowadays marketing lecturer at the Programme of International Business and Management Studies (IBMS). He explains how IBMS' module Trends-in-Marketing came about. "In 2014 IBMS' Marketing faculty was looking for a way to bridge the gap between the Marketing as we had been addressing it in our 4-year programme and the business practice that students would encounter after graduating or even already during internships. Both from our own experiences and from keeping in touch with the professional field through seminars, publications and especially internship visits, we knew we just had to bring themes such as Gamification, Big Data, and Customer Journey into the curriculum. But we also knew that it can easily take another 3 – 5 years before the first students with that new knowledge will then graduate. So we needed to come up with something different. Our luck was that around the same time IBMS management wanted to try out new ways of teaching methods, such as 'flipping the classroom'. It was synchronicity. Within weeks we had our new module ready to be delivered as part of two IBMS Minors: 'Brand Management' and 'Business and Service Marketing'. Both minors are being delivered two times a year.
Hoekstra: "What we require from students is a high degree of proactiveness and flexibility. We hardly do any lecturing on the topics that we include. We mostly select a few TED talks or other recorded presentations by apparent leaders in the field. We then ask them to search further and to come up with an overview of key aspects of that particular topic. Working in small teams they present them, we discuss them in class, together we make our own short list and we then ask them to connect those aspects to the marketing practice. In further sessions they then present their own take on how to apply the given trend for a real-life company. For instance in a poster session, or through a self-made video-clip. Again, in-class discussions further enhance insights and understanding. Not just with the students but also with us. Where possible we bring in experts from the field for guest classes. As a final assignment, each student individually writes an essay on a related topic. All we do is approve the choice of topic, give feedback, provide a template and hammer on correct sourcing.

"It's an ever-changing module", Hoekstra concludes. "We can easily adapt the content if a trend should develop into something else, or if new trends appear. What matters is that students themselves dig deeper and discover what is going on in marketing. All we have to do is coach them in that process".

Textbox 1: The ever-changing module

Finally

Can curricula be up-to-date by developing new modules in a step-by-step plan? Can they be updated with permanently adapted modules? It is up to a team to choose for one or the other, or possibly a mixture of both. Educational innovations for a future-oriented approach are a transition from autonomous innovations, in which programmes (within the national and institutional frameworks) decide for themselves, to system innovations in which greater mutual dependencies with the professional field arise (Huizingh, 2015). For optimal value creation by students in practical situations, this cooperation is a *sine qua non*. The system innovation is necessary to achieve up-to-date educational modules and curricula that are prepared for future developments. This choice has far-reaching consequences in terms of mutual dependencies and a successful capacity for co-creation. Many programmes currently make that fundamental choice with equally far-reaching effects for virtually all aspects of educational practice.

The research presented and the recommendations based on it offers educational programmes potential tools to realize a future orientation of curricula in concrete terms. In new research one or more validated systematics can be developed further.

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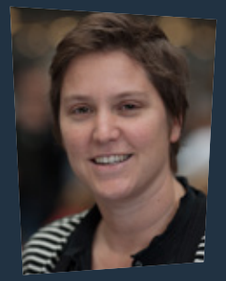

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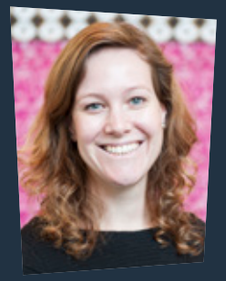

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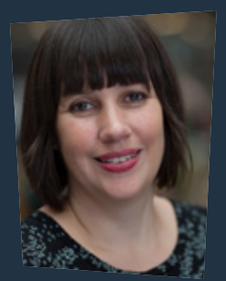

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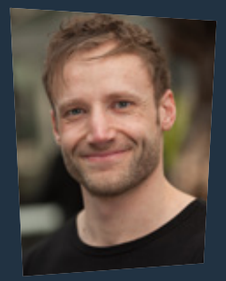

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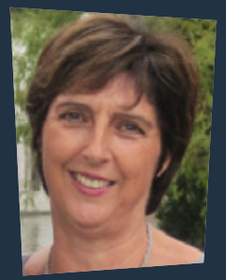

Ilona Lavèn is a learning & development advisor at The Hague Center for Teaching and Learning (HCTL). Her expertise is in career guidance, coaching, and team development. Her passion is bringing out the best in people and getting them in touch with their talents and challenges. Team development for an open and professional culture is currently one of the policy objectives. Effective collaboration increases the quality of teaching and research.
She works on connections and effective cooperative relationships between management and team. A customised development plan for professionalisation is part of her work.
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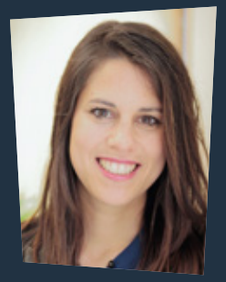

Hester Lentz is a project manager for the Department-wide educational innovation project 'Networkcurriculum' at the Department of BFM. As an educational scientist, she is responsible for the development of the first year of all five programmes of the Department.
She worked for the accreditation process of various programmes and was first year coordinator for the International Business and Management Studies Programme.
Her focus is to help programmes deliver the quality necessary to guide and support students. Part of this is enabling students to discover who they are, to explore their talents, and to prepare them for entering the business field as a young professional.
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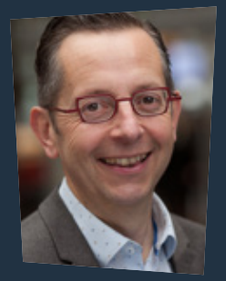

Geert Neelen is a programme director for the Public Administration and International Public Management Programme. He received his PhD for his research that applied the principal-agent theory to public-sector landlords in the Netherlands. Until 1999, he was a lecturer and researcher at Leiden University about topics as policy changes at the Ministry of Agriculture, Nature and Food Quality, and the local administration and position of the town clerk. He is very interested in administrative roles within the public domain.
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Piet Willems was affiliated with the Department of European Public and International Law at Ghent University where he was involved in several interdisciplinary European research projects. In recent years, he made an active contribution to the operation of the European Integration Research Group by conducting research on the theme 'Better Regulation'. These activities have revolved around an analysis and evaluation of inter-institutional agreements between the European Parliament, the European Council and the European Commission. Since September 2017, Piet has been the team leader for the Applied Safety & Security Studies Programme for which he helped to develop a research policy.
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