Exploring Learning Technologies and Social Media for VET Students at Risk

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EXPLORING LEARNING TECHNOLOGIES AND SOCIAL MEDIA FOR VET STUDENTS AT RISK

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EXPLORING LEARNING TECHNOLOGIES AND SOCIAL MEDIA FOR VET STUDENTS AT RISK

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Introduction

The motive for this study is the fact that at-risk youth are less informed and educationally prepared for participation in a knowledge economy and networked society. The world school leavers are faced with after graduation or dropping out has however also changed, as a result of modernization and the advent of modern technology. Participation in a knowledge economy and networked society increasingly depends on the use of social media and social networks (De Haan & Adrichem, 2010; Ester & Vinken, 2004; Laermans, 2010; Van Dijk, 2009; Wellman, 1999) and requires developing new kinds of skills or literacies (Autor, Levy, & Murnane, 2003; De Grip & Zwick, 2005; New London Group, 1996). In misperceiving and underutilizing demands and opportunities, at-risk youth face a precarious future, possible social exclusion and economic obsolescence (De Grip & Zwick, 2005; Eimers & Verhoef, 2004). The increasing digital gap indicates that chances and opportunities for social and economic participation, e.g. sociality and employability, are unequally distributed and that inequalities and disparities are reproduced or even reinforced. The focus of this study are literacy practices that may provide the opportunity or have the potential of enhancing social and economic, online participation of youth at risk.

'I don't want to be a product of my environment. I want my environment to be a product of me.'

1.1   BACKGROUND OF THE STUDY

The quote cited above is from Martin Scorsese's movie *The Departed* and comes from one of the main protagonists in it, Irish-American mobster Frank Costello, played by Jack Nicholson. The movie is infested with deceiving losers and logically lacks a happy ending as all the main characters are playing their own secretive game and end up killing each other. There seems no telling who is who and what is right or wrong. What Frank Costello seems to ignore is that his deepest wish to rule his environment with crime and terror is also the result of him being born and raised in South Boston, a predominantly working-class Irish Catholic community. Another telling statement from the movie is, "When you decide to be something, you can be it. That's what they don't tell you in the church" which underscores Costello's urge to detach himself from his working class environment and Catholic roots and deny what is expected of an Irish community member, though this escape from destiny in a sense still makes him a product of his environment. Costello, in rejecting the values and norms of his community, chooses for a different pathway.

Interpreting the symbols and signs in one's environment is part of upbringing and social learning but may not necessarily correspond with what is taught at school or taught in sermons in church, since value communities have lost much of their cultural meaning and supportive qualities. Ending up as a mobster means 'choosing' an untimely death or a life time in prison. That is what school and church likely taught Frank Costello but what he wilfully wished to ignore. What Costello's fate teaches us is that social agents like educators face the inevitable paradoxical nature of pedagogy or in a broader sense, 'the paradox of emancipation' (Wildemeersch, 2013).

Educators struggle with the paradox of fostering the capability of adolescents to exert their freedom of choice while they, as educators, are also expected to convey social development and standard expectations (Livingstone, 2015; Uhlendorff, 2004; Wildemeersch & Weil, 2009). After almost half a century of reflection on the research regarding social pedagogy, Wildemeersch (2013) concludes by offering promising themes for future research. Of these themes, the 'uncommon community' provides the most relevant starting point for our research: "it takes difference as an important constituent of what present day communities in a pluralist world could be about" (2013: 13). An 'uncommon community' favors differences over likeness, understands and accepts diversity (Boonaert & Vettenburg, 2011), acknowledges that change and heterogeneity are the most evident features of social relations in the network society (Hoppmann, 2004), and can handle dissonance and competing orders of worth (Stark, 2000). These communities do not yet or no longer have a closely knit, inward bonded network of mutual relationships, are not based on a shared set of values and don't need shared values and norms, but most importantly, what they do need, is ethics and a sense of solidarity.

In this study, we are interested in disadvantaged youth who have dropped out of school and lack alternative possibilities and opportunities to develop their social competencies and social networks by means of informal learning.

According to Bandura, chance encounters and fortuitous group induction provide a "new symbolic environment designed to foster affinity, solidarity, and shape ideological perspectives on life" (1999: 11). In concordance with Bandura's claim, media researchers argue that participatory encounters in online activities may socially engage disadvantaged youth and thereby contribute to the development of their social skills (De Haan & Adrichem, 2010; Livingstone, Bober, & Helsper, 2005). The question is how disadvantaged youth can be motivated to actively engage in online activities and learn how to perceive and read the new symbols in these environments.

In our study, we will restrict our view on technology-related research literature to learning that happens predominantly in the field of computer supported collaborative learning (CSCL) as we consider informal learning an essential social process that requires interaction and collaboration (Lave & Wenger, 1991). In the CSCL research literature, a distinction is made between educational, technological and social affordances (Kirschner, 2002; Kreijns, Kirschner, & Jochems, 2002). Opportunities to learn collaboratively in a distributed way not only rely on the epistemological soundness of the environment (Suthers, 2006) but also on the affordances that foster social interaction – that is, the features that foster trust, a sense of community, and strong interpersonal relationships (Kreijns, Kirschner, & Vermeulen, 2013). Any attempt to promote social-learning processes in a symbolic way should be seen as probabilistic (Kirschner, 2002) because informal or social learning cannot be designed but only 'designed for' (Lave & Wenger, 1991; Jones, Dirckinck-Holmfeld, & Lindström, 2006).

The aim of this dissertation is to explore the possibilities of social networks and social media to enhance opportunities for economic and social participation. We aim to determine what kind of skills or literacies relate to the use of social media and social networks, find out what and how at-risk youth and potential early school leavers (ESL) think and feel about the use of technology, and determine how and why teachers work with at-risk youth. We start this exploration based on the assumption that social networks can function as learning environments (Paus-Hasebrink, Lampert, & Hasebrink, 2009), that literacy practices in online networks can be seen as learning activities (De Haan & Adrichem, 2010; Drotner, 2008; Ito, 2008; Livingstone, Bober, & Helsper, 2005) and that social affordances can model and foster literacy practices in a desirable though probabilistic way (Derksen & Beaulieu, 2011; Kirschner, 2002).

In this dissertation, different studies are conducted to explore possibilities and opportunities and answer relevant questions about (1) the skills relating to literacy practices, (2) the attitudes of at-risk youth with regard to social media and social networks, (3) the obvious or contested place of technology in the belief systems and attitudes of educational professionals, and (4) the influence of at-risk students' level of social competencies on the perception of social affordances.

1.2   CONTEXT OF THE STUDY

ESL has been studied extensively since European countries collectively decided to intensify policies and practices that prevent ESL. In these studies, the problem has been explored from different angles. In addition to a categorization of ESL (Eimers & Bekhuis, 2006) and typologies (Oberon, 2008), research focused on background characteristics (OC&W, 2007), risk situations (De Boer, 2008) and risk factors (Oberon, 2008). It is clear to all parties involved that the issue is complex. That is to say, since there is not just one reason for ESL, there are no simple answers or a single approach to preventing it (Dutch Scientific Council for Government Policy, 2009). The situation is more complicated and requires more than simply providing recurrent opportunities for participating in formal education (Dale, 2010). The complexity requires a differentiated approach involving multiple parties, including education, youth care and local authorities that all have to work together (Ritzen, 2008).

1.2.1   Focus on our target group

Every year almost three-quarters of ESL in the Netherlands drop out of secondary vocational education (Drop-out explorer, 2013). An ESL factsheet (ROA, 2013) indicates not only that the number of school-related causes of ESL has risen from 41 to 51%; the factsheet also labels 27% of the ESL as being 'inactive', meaning that they are neither employed nor at school and not looking for work (NEET). Of these inactive ESL, 54% can be considered quitters and 49% show no regret with regard to their decision to drop out.

   In Dutch research and policy, three categories of ESL are distinguished based on a categorical distinction between the classic at-risk pupils and 'quitters' (Eimers & Bekhuis, 2006). The classic risk pupils are divided into the category 'inhibited' and the category 'non-able'. The 'inhibited' are characterized by multiple, personal and social problems and are therefore also referred to as 'overburdened'. The 'non-able' do not possess the abilities to attain a basic qualification (a qualification at ISCED level 3C). Finally, the category "quitters' are the group that turn their backs on education , without an obvious personal or social-problem history. Quitters leave education as the result of a combination of 'push' and 'pull' factors that cannot be described adequately by the risk-factors' model. This seemingly less-problematic but growing category of ESL gets less attention from educational institutions (Inspectorate of Education, 2007), policy makers (WRR, 2009) and educational research than other groups (Ritzen, 2008).

   Quitters who turn their backs on education or drop out unintentionally, are often characterized by factors that also contribute to future social exclusion such as 'no or low social participation' and 'limited or no social networks ' (Eimers & Verhoef, 2004). Especially ESL with an immigrant background lack the possibilities and opportunities to create and maintain a social position and status without a basic qualification and should

therefore be helped in building a supportive, social network (Inspectorate for Work and Income, 2008).

For the category inactive ESL (NEET) who are not in a job, there are at present little to no accessible, alternative forms of learning available. Forms of informal networked learning (De Laat, 2006; Sloep, 2008; Van Aalst, 2001), that first appeared in educational developments like 'open courseware', 'open educational resources' and more recently 'MOOCs', seem to offer opportunities for this category of ESL. Whenever learning is distributed, due to the dispersion of learners or resources, and learning activities consist of the construction of knowledge through social interactions, technology can facilitate communication, social interaction and online learning (De Laat, 2006). But in addition to the availability and accessibility of the medium and the infrastructure, it is also important that these educational resources are appropriated for these ESL and that there is some form of guidance available.

1.2.2   *The importance of social networks*

Several studies have reported a weakening of the social bonds and cohesion in society as a consequence of post-modernity (WRR, 2003). The publication '*Bowling Alone: The Collapse and Revival of American Community*.' by American sociologist Putnam (2000) is often cited in this respect. However, sociologists who do not adhere to Putnam's claim about the decline of social cohesion as a result of diversity, argue that what has effectively changed over time are the material and immaterial conditions for networking and the resulting networked patterns of social behavior and importance of weaker ties (Ester & Vinken, 2004; Völker, 2008; Wellman 1999). These changes are mainly attributed to the possibilities of communication and interaction that are afforded by new media (De Haan, 2008; Lievrouw, 1998).

Educational researchers have frequently shown interest in the relationship between social skills and social networks or communities with economic and social participation and outcomes like sociality, employability and mobility. These researchers are primarily interested in developmental and educational issues surrounding educational participation and engagement as an independent variable in relation to learning outcomes (Ten Dam & Volman, 2007; Veenstra, Dijkstra, & Peschar, 2004). Or they are interested in social skills and social networks as an outcome measure, that is: outcomes of education like social participation and civic engagement (Berghouwer & Van Wieringen, 2006; Bronneman- Helmers & Zeijl, 2008; Campbell, 2006; Wolbers & Tolsma, 2010).

On the labor market the effects of technology and social media on skills demands are tangible in terms of skill-biased technology change, i.e. changes in the task content as a result of technological and organizational change (De Grip & Zwick, 2005). Within-industry changes induced by computerization and successive new demands regarding tasks, explain more than half of the overall demand shift (Autor, Levy, & Murnane,

2003), i.e. a growth in relative skill demand within existing occupations and the production of completely new high-skilled jobs (De Grip & Zwick, 2005).

Technology influences the tasks and subsequent skills demand, as routine tasks become automated and non-routine tasks require the sophisticated, higher level combination of interactive skills, including complementary communications skills and computer skills (Autor, Levy, & Murnane, 2003; De Grip & Zwick, 2005). The skills related problem of employability could be tackled along two venues: first, increase the trainability of low-skilled workers in the curricula of lower-level vocational education (Dickerson & Green, 2002) and second, invest in people's skills (Cedefop, 2015) as trainability of low-skilled workers and especially their learning on the job is a known yet unresolved problem (Fouarge et al., 2013). An important part of the skills demand that needs to be addressed are the computer skills that complement the social, interpersonal and communicative skills (Autor, Levy, & Murnane, 2003).

The plea for a foundational set of ICT-related skills for every citizen in the Netherlands (Van Dijk, 1998; Dutch Council for Culture, 2005) has not resulted in structural attention being paid in education to ICT related skills (KNAW, 2012). Weda, Theeuwes and De Nooij (2008) found that, although the marginal effects of computer skills are mainly related to non-routine tasks and interpersonal skills, learning e-skills may spare people from ending up in low skilled, routine driven jobs, and may even protect employees in times of cut backs and layoffs. The most important forms of workplace learning and predictors of an individual's employability are work-related training, interactions with a supervisor and informal networked learning within the organization (Nelen, Poortman, De Grip, Nieuwenhuis, & Kirschner, 2010).

The question is how these kinds of skills can be attained through alternative, online forms of informal learning and what the role of technology could be for quitters in attaining these skills.

1.2.3   The role of social media in learning networks

A transformation of education is needed in order to provide more alternative forms of learning for those who need training most (Dale, 2010), that is, those with low or irrelevant skills, but who tend to make use of training opportunities the least (Borghans, Fouarge, & De Grip, 2011). Currently, expectations around the transformation of vocational education are high with regard to the concept of workplace learning (Fouarge, De Grip, & Nelen, 2009). Workplace learning becomes more networked through technology, this change also guides pedagogical innovations and transformations. Optimally benefitting from networked learning in the workplace would require that more attention be paid to acquiring networking skills (Kirschner, Caniëls, & Bijker, 2012).

So within the frame of this 21st century educational transformation, it is necessary to ask how and where ESL might acquire the social skills and participatory networking

skills needed to sustain their employability and prevent them from becoming socially excluded in the long run.

The use of social network sites (SNS) is also closely linked to central developmental tasks in adolescence, e.g. identity construction (Paus-Hasebrink et al., 2009). Developing social skills in online networks however requires more than mere interaction and participation. (Pfaff-Rüdiger, Riesemeyer, & Kümpel, 2012). Online social activity usually corresponds with having many digital relations (De Haan, 2008). The conditions for networking, such as access to virtual communities, however, are not equal for all groups in society. Sometimes these media offer the possibility to escape from the private confines of the home and make it possible to connect with the public (Laermans, 2010); in other cases virtual communities exhibit corrective forms of exclusion (De Haan, 2008, Van Zoonen, 2004). So the question is how social affordances may support the learning process of disadvantaged youth.

1.3   THEORETICAL FRAMEWORK

1.3.1   Social networks

Social-network sites provide rich developmental opportunities with regard to identity formation, relationship building and the development of social skills (Drotner, 2008; Paus-Hasebrink et al., 2009; Valkenburg & Peter, 2011). Social-network sites also provide learning opportunities for professionals or individuals who are in training (De Laat, 2006; Kirschner, Caniëls, & Bijker, 2012). However, in studies concerning developmental and educational issues, these technological developments and advancements have as yet received little attention.

1.3.2   Social media

For a better understanding of the concept 'social media', we introduce a simple classification that relies on the key theoretical concepts of 'social presence' and 'self-presentation' (Kaplan & Haenlein, 2010) as well as the concepts 'social relevance' and 'professional quality', which define the relevance and quality of participation in online platforms (Carpentier, 2009). Following Kaplan and Haenlein's (2010) thinking, we define social media as:

> "... a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content" (2010: 61).

Social presence is a media-related dimension, relates to the desire to exert social influence that is, to influence ambiguity and uncertainty, and depends on media

richness, that is the degree of intimacy (interpersonal vs. mediated) and immediacy (synchronous vs. asynchronous) afforded by media. Self-presentation is the second, social dimension, and relates to the social desire to control one's impression, that is, to influence others, to gain rewards and to create a consistent image of one's personal identity. These elements influence the degree to which media allow for the exertion of social influence: higher levels of presence allow for higher degrees of influence.

1.3.3   Social affordances of technology

With the concept of 'social affordances' (Kirschner, 2002; Kreijns et al., 2002), CSCL-research addresses non-task-related, more probabilistic, psychosocial factors that play a role in technology-mediated interaction and collaborative processes (Kirschner, 2002). Social affordances can be seen as prerequisites designed to elicit desired action and they can account for psychosocial factors that affect human interaction and collaborative processes. According to Kirschner (2002), this involves achieving a 'mutual dependency' and a 'perception-action coupling' through the design of social affordances. It is essential that these properties are actually perceived by users ('awareness') and that the environment promotes the visibility or conspicuousness of other users ('salience') in order to create a 'sound social space' (Kreijns, 2004).

1.3.4   Social competencies

Based on a literature review, Ten Dam et al. (2003) created a matrix consisting of 'constituent' components of social competencies, divided into three dimensions: the intrapersonal, interpersonal and the societal dimension. Within these three dimensions, the concept of competency is divided into the components knowledge, skill, attitude and reflection.
In our study, we solely view social competence from a participatory perspective. This interpersonal perspective consists of the following elements from Ten Dam et al.'s matrix:
- identity development (dynamic concept of identity, not "finished" after adolescence);
- critical citizenship (flexible interpretation of choices; multi-perspective view on the heterogeneous society; the ability to change perspective and deal with cultural differences and tensions);
- social participation (to function in social relationships and communities).

In our study, we are only interested in identity development as a precursor to online self-presentation and in social participation as a precursor to explicit participation. We will leave out the element of critical citizenship, as citizenship is contested as a traditional social category in fields such as sociology (Wellman, 1979), political science

(Bovens & Wille, 2010; Van der Steen, 2014) as well as in science and technology (Marres, 2005). This type of social identification and categorization is reserved for traditional institutions and public agents (WRR, 2007) that have lost much of their traditional, regulatory functions in public governance.

1.3.5   Participatory competencies

Active participation in social change by modern youth presupposes certain competencies, which can be labeled as 'participatory competencies' (Wildemeersch et al., 2000) or 'agency' (Pohl, Stauber, &, Walther, 2007). Social change does not necessarily point to developments on a societal scale, but starts with the everyday concerns and challenges that modern youths face, and where they themselves are held responsible for their own self-realization (Stauber & Walther, 2006; Vinken & Diepstraten, 2010).

Wildemeersch et al. (2000) focused their research on education, training and guidance (ETG) programs specifically aimed at enhancing social and economic participation for unemployed young adults and thus preparing them for (re)entering the labor market. The participatory competencies an international team of researchers distinguished are:
- biographical competencies, which means having the capacity to create consistent, meaningful and valuable narratives of one's (inter)actions and experiences, guided by frames of reference (images and discourses);
- instrumental competencies, which means being able to make adequate use of material and symbolic resources in order to influence interactions with respect to (re)entering the labor market;
- social competencies (normative competencies), which means having the ability to participate in various social networks which directly or indirectly creates possibilities for participating in the labor market.

Wildemeersch et al. (2000) furthermore stressed the importance of broadening the educational setting with informal, meaningful practices and broadening the understanding of competencies beyond the mere skill-based occupational demands of the modern labor market.

1.3.6   Culture and learning as key developmental dimensions

According to Pohl et al. (2007), who conducted a literature review to define the agency of youth, the development of agency among modern youths depends on two key intermediate dimensions, which are: 'learning' on the one hand and 'culture' on the other.

They define agency as:

> … the capacity of an individual to act, related at one level to free will, while action refers to a single activity influenced or resulting from agentic processes (Pohl et al., 2007: 7).

Learning is one of the key dimensions, as the development of new practices always implies learning, yet not in terms of formal learning but in terms of non-formal and especially of experiential and explorative learning in informal contexts. In other words, formal education can no longer guarantee the social recognition of individual learning processes (Stauber & Walther, 2006). Pohl et al. (2007) understand learning as the more or less formalized and more or less conscious reflexivity through which individuals internalize experiences in terms of knowledge and transform these into practical skills and a repertoire of actions. Culture is the other key dimension, because it is crucial to the individual and collective understanding of the meaning of different choices and practices. Culture is understood as a dynamic system of interpretations and practices, which are both shared (and contested) in interactive relationships and interpreted (and expressed) individually.

According to Pohl et al. (2007), agency is not a human quality in and of itself but an attribute of the activity of engagement between actors. They conceptualize agency as 'agency within structure' and see it as something that is structured, and restructured, as part of a transaction within a particular context-for-action or ecology. This further implies that a particular 'quality' is not a fixed human trait but is situated and therefore restructured time and again depending on changes in context or situation.

The key dimensions Pohl et al. (2007) distinguish, seem to imply that modern youth should know how to reflexively internalize experiences into knowledge, and transform knowledge into practical skills with a focus on both learning and culture and that they will know how to participate in cultural activities to understand, negotiate and make meaning of everyday choices and daily practices.

1.3.7   Self-presentation

In order for strategic self-presentation to enhance relational outcomes, the quality and relevance of the information disclosed needs to be recognized by the audience (Carpentier, 2009). In the case of peer-to-peer communication and sharing, the quality and relevance of the content shared may be viewed differently (Drotner, 2008; Papacharissi & Easton, 2013; Valkenburg & Peter, 2011) than when youth express themselves and disclose information or cultural artifacts to older adults (Jenkins, 2006). What matters with regards to recognition and approval by others of one's online contributions, is that online self-presentation requires certain skills that ensure self-efficacy (Bandura, 1999), informational availability (Mejias, 2007) and communicative sovereignty (Laermans, 2010).

Self-presentation is often supposed to result in social or public recognition or social approval regarding the way in which identity or meaning has been expressed and presented (Papacharissi, Jenkins, 2006; Suthers, 2006; Pohl et al., 2007). For modern youth, the expression or exchange of experience and recognition of these practices relates to their agency. Expression is part of the process of forming identity through networked sociability and leads to what Papacharissi and Easton (2013) call 'the habitus of the new'. However this habitus of the new is often not understood or valued by adults (boyd, 2014; Ito, 2008) or collides with conventions and traditional frameworks (Livingstone, 2014; Marres in Carrigan, 2014).

Looking at the theoretical and conceptual exploration of participatory competencies or agency (Wildemeersch et al., 2000; Pohl et al., 2007), it is clear that modern youth face new learning demands with regard to participating in a way that is beneficial both socially and economically. New learning demands that refer to participation entail:
- orientation, which means developing interests, dealing with setbacks and demands;
- adaptation, which means relating needs and capabilities to the environment, compromising on goals, balancing competencies;
- networking (Stauber & Walter, 2006).

Modern youth already engage actively in new types of informal and social learning, yet these practices are not always recognized or acknowledged by social agents, like adults and teachers (Drotner, 2008; Ito, 2008; Jenkins, 2006).

We focus particularly on skills related to the use of social networks, as described by Stauber and Walther, because we are interested in the way modern youth can develop their participatory competencies in a social and collaborative way. Stauber & Walther (2006) identify five dimensions that combine skills and attitudes with regard to networking and which strongly relate to social media use:
- identify social networks as a resource;
- activate and use them;
- be open to the heterogeneity of social networks;
- reflect on the informal processes of emerging, developing and collapsing networks;
- see the relativity of the post-modern myth of 'having to make it on your own'.

1.4   THE DESIGN OF OUR STUDY

In using an exploratory approach, we hope to learn how and why at-risk students and teachers use social media and how the motives and attitudes underlying this use relate to professional and personal beliefs, interests and needs. Our first study was a literature study. We further used case studies in studies 2, 3 and 4 and a mixed-method approach in studies 2 and 3. The mixed-method approach combined qualitative and quantitative

instruments, that is a combination of focus groups and coding schemes in study 2 and a combination of interviews, focus groups and questionnaires in study 3.

In chapter 2 we present the results of our first study. In this chapter we focus on the literature of media use and literacy. Recent studies on social media have led to a variety of definitions and operationalization of instrumental skills or literacies related to social media use. This growing, but still inconclusive body of literature on media literacy, digital literacy or information literacy is explored here.

In that study, we only included peer-reviewed research that conceptualizes literacy as 'situational' practices defined and constrained by the context and the technologies involved. We excluded other research because we were only interested in informal, social forms of online learning in which the quality of the interaction is determined by the dynamic relationship between users' capabilities to perceive and process social environmental cues, and the designed affordances that foster trust, a sense of community and interpersonal relationships (i.e., sociability).

In chapter 3 we present the results of our second study. In this chapter, we focus on potential or relapsing ESL, who are enrolled in a short, ten week, rebound program that is part of a special-needs service of a Dutch regional school for vocational education. We were especially interested in the attitudes of ESL with regard to social media and social networks, that is, their attitudes towards online self-presentation and participation. We explored whether their social backgrounds might influence their social media use and their view of social capital from an outward, bridging perspective. We also explored whether their problematic history had an influence on their attitude towards selective self-presentation. We explored several personal and social aspects that might have influenced their attitudes towards online presentation and participation through social media use, namely a lack of personal interest or need, possible emotional costs and anxieties associated with social media use, and social agents and role models from their background.

In chapter 4 we present the results of our third study. In this chapter we focus on the beliefs of teachers who work with at-risk students in a level 1 program at a Dutch regional school for vocational education. The level 1 program, Assistant Training, prepares students for simple labor activities but does not lead to a basic qualification. For a basis qualification, students have to transfer to and complete a level 2 program We were especially interested in the motives and beliefs of teachers with regard to the exploration and possible implementation of learning technology in this learning environment. These teachers predominantly approach and design teaching and learning from a need-supportive, affective strategy that predominantly addresses the teacher-student relationship. We explored whether, in the mind of the teachers, characteristics attributed to learning technology might appear to be ineffective in promoting the trust and mutual respect, which are elementary aspects of an affective teaching strategy and therefore would not fit their students' needs. We also explored whether the competencies Dutch teachers generally report as 'lacking' with regard to teaching with

ICTs, might influence the process of exploring and implementing learning technology, that is: the quality of the teachers' collective professional reasoning.

In chapter 5 we present the results of our fourth study. In this chapter we focus on students enrolled in the Assistant Training program at a Dutch regional school for vocational education. We were especially interested in the possible influence of students' levels of social competence on their perception of social affordances. It is assumed that social affordances foster trust, a sense of community and interpersonal relationships in online environments. These elements of what is referred to as the 'social space' influence psychosocial factors, in particular the quality of human interaction and collaboration. Social affordances are perceived and then internalized and processed in order to be transformed into appropriate action. We argue that this perception-action coupling may be influenced by the level of social competencies of users. This would mean that potentially positive effects of social affordances can be impeded by a lack of social competencies in the case of students enrolled in the AT-program.

In chapter six, we provide a summary of the main findings of the dissertation and the limitations of the methodology. This chapter further discusses the theoretical and practical implications of the findings. It also outlines directions for further research and ends with a general conclusion.

A note to the reader:
The chapters in this dissertation are written in such a way that they can be read independently of one another. Some degree of overlap in the introductory sections of the chapters is therefore inevitable. Regardless of their current publication status, all the chapters in this dissertation have been written in collaboration with my supervisors. I therefore mainly use the pronoun 'we' rather than 'I' in the relevant chapters.

Chapter 2

Participatory perspectives for low skilled and low educated: how can media literacy enhance the social and economic participation of disadvantaged groups?

We assume that social media use influences employability and sociality and that media literacy complements a basis set of skills. Especially the low skilled and the low educated lack these skills, which creates a participation gap. We searched peer reviewed articles for conceptualizations of media literacy in order to find elements of media literacy that might inform a comprehensive program targeting the low skilled and the low educated. We used the ERIC database and different search strings. Literature was scarce and media literacy concepts were inconclusive. We then broadened the scope, using a snow ball technique and Harzing's Publish and Perish for control purposes. This approach revealed that self-presentation, self-profiling, informational availability and networking skills are important elements of social media use which may enhance economic and social participation. There is however no clear answer whether and how the acquisition of media literacy should be provided for by education and what the role of skills for lifelong learning is in maintaining levels of proficiency during the life course.

2.1   INTRODUCTION

The information age and the advent and rapid spread of new media pose new questions and dilemmas for the low educated and low skilled. Research indicates that the proliferation of social media has widened a participation gap, also known as the digital divide (De Haan, 2004; Van Dijk, 2009), which affects mainly the low skilled and low educated, because they are not able to use digital information in an effective and helpful way (Van Dijk, 2009).

    In this study, we are interested in the role media literacy can play in educational strategies that aim at closing this participation gap. In order to determine the role social media can play in devising these educational strategies, a number of problems must be addressed. These problems concern the concept of media literacy, the literacy practices that may enhance social and economic participation and the role of formal and informal learning in strategies devised to close the gap.

2.1.1   First problem: the clarity of the concept of media literacy

The first problem we encounter relates to the inconclusiveness of the concept of media literacy. Disciplines, ranging from communication sciences and media studies to cultural anthropology, sociology and psychology, have reported abundantly on the emergence and role of new technologies in their fields. Media literacy and literacy practices have been studied in disciplines such as social science (Derksen, Vikkelsø, & Beaulieu, 2012), media studies (Ito, Horst, Bittanti, Stephenson, Lange, Pascoe, ... & Martínez, 2008; Valkenburg & Peter, 2011), media education (Buckingham, 2007, 2013), youth studies (Drotner, 2008) and educational design (Suthers, 2006). This disciplinary diversity has led to tensions and struggles concerning conceptual framing and definition, which has in turn resulted in a variety of concepts and a diversity of advocates who champion these concepts vigorously (Bawden, 2001; Martens, 2010).

2.1.2   Second problem: aspects that determine and may close the participation gap

The second problem concerns the diverse views of the participation gap and the role literacy can play in closing this gap. Many studies that address the so-called 'digital divide' follow or propose a dichotomous perspective. These studies divide the general population into literates and illiterates and propose a 'right literacy' for all (Collins & Blot, 2003). However, the problems of the 'information poor' do not necessarily indicate a literacy-related digital divide. Their problems may actually relate to a knowledge gap, which is a problem already long known that arose before the advent of modern technology (Steyaert, Van der Zee, & Zaat-Jones, 2000). So it is as yet unclear

how media use relates to a lack of social and economic participation and how media literacy may help solve this problem.

2.1.3   Third Problem: the role of education as part of an opportunity structure

The third problem concerns the role of formal and informal learning. Literacy practices require learning, entail learning or produce learning (New London Group, 1996). The role of formal education may seem very obvious, because education is traditionally seen as key element in the development of literacy and educational attainment as a predictor of social and economic participation and mobility (Campbell, 2006). The role of education is partly contested because education had no significant effect on the technology-related performance of students; researchers therefore argue that literacy should be acquired outside of the educational context (De Haan, 2004). Or it is argued that there is actually no need to teach those who are in low skilled jobs any technology-related skills; only the higher skilled would profit from technology-related training (Borghans & Ter Weel, 2004). The role of education is also stressed because these literacies are related to a skills gap (Van Deursen & Van Dijk, 2014; Van Dijk, 2009;), or because youth's literacy practices require a rethinking of education (Drotner, 2008; Ito, 2008; Jenkins, 2006).

Before we frame our questions we first clarify what specific type of media we refer to when talking about media literacy in relation to participation issues. We also briefly introduce the low skilled and the low educated and their literacy levels.

2.1.4   Social media and participation

Our interest and focus lie with the interactivity and participation afforded by social media and social network sites (SNS). Due to these affordances, new media are often dubbed social media. The term social media is applied to various publicly available forms of media as well as the content created by end-users of these media.

For a better understanding of the concept of social media, we introduce a simple classification that relies on the key theoretical concepts of 'social presence' and 'self-presentation' (Kaplan & Haenlein, 2010) as well as the concepts of 'social relevance' and 'professional quality', which define the relevance and quality of participation in online platforms (Carpentier, 2009).

Following Kaplan and Haenlein (2010), we define social media as:

> ... a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content. (2010: 61)

Social presence is a media-related dimension, relates to the desire to exert social influence that is, to influence ambiguity and uncertainty, and depends on media

richness, that is the degree of intimacy (interpersonal vs. mediated) and immediacy (synchronous vs. asynchronous) afforded by media. Self-presentation is the second, social dimension, and relates to the social desire to control one's impression, that is, to influence others to gain rewards and to create a consistent image of one's personal identity. These elements influence the degree to which media allow for exerting social influence: higher levels of perceived presence allow for higher degrees of influence. Self-presentation is influenced by one's ability, as combined with a platform's affordances, to create a fashionable or favorable impression and one's degree of self-disclosure (conscious or unconsciousness revelation of personal information) (Valkenburg & Peter, 2011). Following Kaplan and Haenlein's definition, we refer to social networks or platforms when using the term *social media* in this article.

New media are also seen as interactive or participatory media. According to Carpentier and De Cleen (2009), participation is an integrated and constitutive part of political-ideological models that debate and express the relations between the media-related concepts of access, interaction, participation and power. These political-ideological models represent minimalist or maximalist types or degrees of participation. Carpentier (2009) found that professional quality and social relevance are important key elements in audiences' evaluation of participatory practices: "Just showing everyday life, or just organizing participation, is simply not enough" (2009: 418). One needs more in order to create maximalist participation, i.e., social relevance and professional quality. Social relevance in online platforms is expressed by the degree to which information is perceived as transcending the private and personal. Professional quality refers to basic conventions about aesthetic, narrative and technical quality that audiences still expect, even when confronted with products of mediated participation.

By adopting these concepts for classification purposes, we explicitly frame literacy practices as being social practices, requiring presence and self-presentation, and also being participatory practices, requiring quality and relevance with regard to content or information to be generated and shared. Social media use in our study therefore entails three distinct dimensions: a media-related dimension, a social dimension and a content-related or informational dimension.

2.1.5   Low skilled and low educated

In general, the low skilled or low educated are defined on the basis of their level of educational attainment although this level is by no means fixed or static as it may rise through lifelong learning and drop through age-related factors (Buisman & Houtkoop, 2014).

With regard to literacy levels, the OECD's Survey of Adult Skills (PIAAC) is used to determine proficiency levels across all occupational levels. The survey found that more than 60% of the adults in EU countries assessed their ICT-related skills as being below the level required to find or change a job. This skills gap is inversely related to the

respondents' educational attainment levels, acknowledged by below 40% of those with a tertiary education, and over 80% of low educated respondents (OECD, 2013: 42). The survey also found that many adults' low level of basic skills affects their opportunities for social participation. This indicates that a basic set of skills affects both economic and social participation and may indicate that media literacy affects both economic and social participation.

2.1.6   Research questions

Our literature study was guided by the following research questions:

1. Which conceptualizations of media literacy were used in the selected studies to explore relations between media use, literacy and the social or economic participation of the low skilled or low educated?

2. Which elements of media literacy are proposed as being relevant to the social or economic participation of the low skilled and low educated?

3. How do elements of media literacy relate to enhanced learning opportunities for social and economic participation?

2.2   METHOD

We used the ERIC database as our primary source for selecting relevant studies and searched for these studies with the key words: media literacy, social media, social network sites, network sites, low skilled, low educated, youth at risk and ESL. We added the last two terms because descriptive statistics by government agencies tend to categorize the low skilled or low educated up to the age of 23 years old as youth at risk or ESL. As a result, these two categories also surface in research on the low skilled or low educated.

In addition to the database search, we used the 'snowball technique' to search for additional relevant literature. As a means of controlling our 'snowball technique', we used Harzing's Publish or Perish software, looking for the impact of authors in their field as expressed by Hirsch's h-index.

2.2.1   Criteria for study inclusion and exclusion

We excluded studies that approached literacy from a technical perspective, often presented as 'digital literacy', expressing a device-related concern and leading to a set of reproducible, decontextualized skills (Myers, 2006). We also excluded studies that approached literacy from a cognitive perspective, often presented as 'information

literacy', expressing a constructivist concern and leading to a set of library and study skills (Moore, 2006). We excluded studies that approached literacy from a functional perspective, often presented as Internet or network literacy, expressing a governance concern and leading to a new and 'right' set of technical and cognitive competencies (Papen, 2005). We excluded studies that studied literacy merely in a local context but that were ignorant of the broader political, economic, social and personal contexts and the rationales that shape social, economic and educational policies and local practices. As we are only interested in the situated use and affordances of new media, that is, social media, in relation to social and economic participation, we excluded articles that focused on traditional media, such as television and newspapers.

We included studies that approached literacy as a situated practice, that acknowledged the plurality of literacies and incorporated the governing rationales. We included studies that viewed social media as online applications or platforms that allow the participatory and collaborative creation and exchange of information or content. In part, we additionally used secondary studies by the OECD for descriptive purposes regarding reported literacy-related skills levels.

2.3 RESULTS

In the next section, which addresses our three research questions, an analysis of the results will be presented.

2.3.1 Conceptualizations of media literacy related to social and economic participation

In this section we address our first research question: Which conceptualizations of media literacy were used in the selected studies to explore relations between media participation and the social or economic participation of the low skilled or low educated?

We used and combined three categories of terms to search for studies that possibly related the concept of media literacy with socio-economic status, that is, being low skilled or low educated, and the use of certain types of media. This means we used search strings of the type: *("media literacy" AND "social media") AND ("low-skilled" OR "low-educated").*

Table 2.1 *Categories with search terms*

Category	Identifiers
Literacy	Media literacy
Type of media	Social media
	Social network sites*
	Network sites
Target group	Low skilled
	Low educated
	Youth at risk
	Early school leavers

* SNS, an often-used acronym for social network sites, did not produce any hits in the ERIC database and was therefore not used. Alternative phrasings (social networking sites or networking sites) did not produce any hits either and were therefore not used.

We used two different filter settings with regard to 'Education level', namely, 'adult education' for the 'low skilled' or 'low educated' and 'Secondary Education' for the 'youth at risk' or 'early school leavers' (Table 2.2).

Table 2.2 gives initial results for the number of hits without building search strings by combining our search categories. It also gives the number of journal articles identified using only three of four possible filters and presents the number of hits with regard to the search strings, listed in the left column and the filters used, presented in the top row.

Table 2.2 *Results retrieved with separate search strings*

Search strings	Filters	
	Publication date: Since 2007; Publication type: Journal Articles; Education level: Adult Education; Descriptor: Media Literacy	*Publication date: Since 2007 Publication type: Journal Articles Education level: Secondary Education Descriptor: Media literacy*
"media literacy" AND "social media"	8	38
"media literacy" AND "social network sites"	1*	4
"low-skilled" OR "low-educated"	0 (23*)	0 (5*)
"youth at risk" OR "early school leavers"	0 (6038*)	0 (21843*)

* The parenthesized number was the number of hits that resulted when only the first three filters were used as the descriptor *Media literacy* was missing from the list of descriptors after selecting the first three filters.

In Table 2.3, we present the number of hits when the categories, that is, type of media and target group, were combined into search strings of the type ("a" AND "b") AND ("x" OR "y") and the category of literacy, that is, the identifier 'media literacy', was used as a filter.

Table 2.3 *Results retrieved with completely combined search strings*

	Search strings and filters		
Media	"media literacy" AND "social media" -A-	"media literacy" AND "social network sites" -B-	"media literacy" AND "network sites" -C-
Operand	AND	AND	AND
Target group	"low-skilled" OR "low-educated"	"low-skilled" OR "low-educated"	"low-skilled" OR "low-educated"
Filters	*Publication date: Since 2007;* *Publication type: Journal Articles;* *Education level: Adult Education;* *Descriptor: Media Literacy*	*Publication date: Since 2007;* *Publication type: Journal Articles;* *Education level: Adult Education;* *Descriptor: Media Literacy*	*Publication date: Since 2007;* *Publication type: Journal Articles;* *Education level: Adult Education;* *Descriptor: Media Literacy*
Results	1*	1*	0
Operand	AND	AND	AND
Target group	"youth at risk" OR "early school leavers"	"youth at risk" OR "early school leavers"	"youth at risk" OR "early school leavers"
Filters	*Publication date: Since 2007* *Publication type: Journal Articles* *Education level: Secondary Education* *Descriptor: Media Literacy*	*Publication date: Since 2007* *Publication type: Journal Articles* *Education level: Secondary Education* *Descriptor: Media Literacy*	*Publication date: Since 2007* *Publication type: Journal Articles* *Education level: Secondary Education* *Descriptor: Media Literacy*
Results	20	20	5

* This number of hits remained when not filtering for 'Education Level' and the 'Descriptor' as they were missing from the list of descriptors after selecting the first two filters ('Publication date' and 'Publication type').

The number of results we retrieved for the string "low-skilled" OR "low-educated", presented in columns two (-A-) and three (-B-) of Table 2.3 were identical *(n = 1)*, because both searches retrieved the exact same article. The result was retrieved without filtering for Education Level. The single result concerned an article on the social relevancy of second language learning for low-educated immigrants. We did not consider this article of any further relevance for our study.

The results reported in columns two (-A-) and three (-B-) of Table 2.3 for the string "youth at risk" OR "early school leavers", are identical, because both searches produced identical articles *(n = 20)*. Of the five results reported in column four (-C-), four were identical to the 20 articles reported in columns two (-A-) and three (-B-). This means our search with regard to "youth at risk" OR "early school leavers" retrieved a total of 21 different articles, regardless of the applied identifiers 'social network sites' or 'network sites'.

The results reported in Table 2.3 indicate that research on 'media literacy', in combination with ("low-skilled" OR "low-educated") is scarce. Using the descriptor 'Education level' as an additional filter did not produce any results. Research on 'media

literacy' in combination with ("youth at risk" OR "early school leavers") is more common, although these numbers are also rather small.

Looking more closely at the 21 studies revealed that in fact these studies did not specifically aim at youth at risk or ESL, but were aimed at regular high school students or, in one particular case, at youth in Saudi Arabia. Because of the small number and the apparent lack of relevance for our purposes, we did not pursue studying these articles in further detail.

Because of the negligible number of relevant empirical studies we found, we decided to draw upon generalizations about literacy, and turned to broader theoretical perspectives on the nature of literacy that have been acknowledged in literacy studies (Collins & Blot, 2003; Lonsdale & McCurry, 2004).

2.3.1.1 Conceptual conflation and contamination.

In this section we present aspects of conceptual conflation and contamination we found with regard to definitions frequently quoted in peer reviewed articles on media literacy published between 2007 and 2013.

The following two definitions of media literacy are often quoted:

A. "the ability to access, analyze, evaluate, and create messages in a variety of forms"

B. "the ability to access, analyze, evaluate and create messages across a variety of contexts"

Definition A was found 47 times with Google Scholar, and mainly cited as drawn from a few different sources (i.e., Aufderheide, 1993; Aufderheide & Firestone, 1993; Aufderheide & Frost, 1993; Christ & Potter, 1998, Livingstone, 2004).

Definition B was found 44 times with Google Scholar and cited as drawn from a similar set of different sources (i.e., Aufderheide, 1993; Christ & Potter 1998; Livingstone, 2003, 2004).

Some articles we found even conflated these definitions into one, by quoting one of the two definitions, but then referring to both of the two different sources (Vanwynsberghe, Paulussen, & Verdegem, 2014: 4): "the ability to access, analyze, evaluate and create messages across a variety of contexts (Aufderheide, 1993; Livingstone, 2004c: 18)".

A closer look at Aufderheide's article, a 37 pages report on the results of the 'National Leadership Conference on Media Literacy', produced the following definitions of media literacy:

• "the ability of a citizen to access, analyze, and produce information for specific outcomes" (1993: 6).

• "the ability to analyze, augment and influence active reading (i.e., viewing) of media in order to be a more effective citizen" (1993: 33).

The second, final definition presented by Aufderheide (accented in bold in the original article) contains three verbs, analyze, augment and influence, that were further explained by Aufderheide as used because they "are important and correspond roughly to: consumer skills, user skills and producer skills" (1993: 33).

A closer look at Livingstone's 2004 article reveals that she set out to extend the concept of media literacy from its traditional focus on print and audio-visual media to encompass the Internet and other new media. Livingstone proposed that old and new media converge.

Neither definition A nor B can be traced back to its 'original' source. Aufderheide did not refer to varieties of form or context but actually to a variety in skills corresponding with differences in use as consumer, user and producer. Firestone was the program director who wrote the foreword to the report by Aufderheide. Aufderheide never co-authored an article with Frost.

At first sight, an important difference between these two definitions seems to be the shift from 'variety of forms' to 'variety of contexts'. This shift between may indicate to the attentive reader that research on media literacy has arrived at new insights in the period between 1993 and 2004.

With regard to our first research question, we can say that the most common understanding of media literacy is the ability to consume and produce content in an *effective* way. However, what exactly is meant by 'effective' and how this effectiveness relates to different contexts is not entirely clear or further elaborated.

We found that media literacy concepts are not only sometimes conflated but may also encompass each other. For some it includes the 'competence' aspect, i.e. the ability to make effective use of information, as this term has gained leverage in education (Ala-Mutka, 2011). Framing literacy as competence, may give the impression of a new perspective on media literacy. Due to its relation with the concept of competency, the aspect of learning has evolved as a consistent theme and context in the development of the concept of information literacy (Bawden, 2001). Researchers who take a broader, socio-cognitive or socio-cultural perspective, view media literacy as situated and defined in context (Buckingham, 2013; Street, 2003).

With regard to our first research question, we can also say that references to either *forms* or *contexts* are common. Still, those articles that used definition A or B did not further elaborate on the aspect of multimodality, for example, the diversity of forms, or the aspect of multidimensionality, for example, the diversity of contexts.

2.3.1.2   *Elements of Literacy Relating to Enhanced Participation.*
In this section we address our second research question: Which elements of media literacy are proposed as being relevant to the social or economic participation of the low skilled and low educated?

In seeking to answer our second question, we began with technology-related or technology-mediated participation in economic contexts and next turned to

participation in social contexts. In studying these two contexts, we attempted to combine understanding, meaning and context, as proposed by Bawden (2001), and to understand the meaning of social media and social network sites in these contexts and the effect on participatory processes. Finally, we compared our findings from these two contexts, in a search for similarities and commonalities.

2.3.2   The economic context

Labor market studies have led to the conclusion that computer- or technology-related skills have an important complementary function within the set of basic, interpersonal and communication skills every employee should possess (Borghans, Ter Weel, & Weinberg, 2008; Levy & Murnane, 1992; Wulff Pabilonia & Zoghi, 2013). The combination of advanced computer skills, communication and interpersonal skills is also essential for interacting with and learning informally from colleagues (Kirschner, Caniëls, & Bijker, 2012). In fact, task-related interaction and informal learning activities highlight the importance of networking skills for sustaining one's employability. As such, the use of social media on the job supports the sustainment of employability as it enables the conversion of opportunities into capabilities. As a double-edged sword, the same technology that changes organizations and tasks and erases jobs, affords individuals the opportunity to sustain their employability and combat the threat of obsolescence. Advanced technological skills not only relate to tasks but are also increasingly complementary to interpersonal and communicative skills.

2.3.2.1 Self-profiling and career control.

Converting job related opportunities to capabilities requires more than mastering interpersonal, communicative and technological skills; it also demands a certain pro-active attitude. Changing and challenging job conditions are best met with networked, informal learning activities (De Grip, Loo, & Sanders, 2004; Kirschner et al., 2012). Two individual career competencies seem particularly relevant to informal learning when people are challenged by the changing conditions of their job: self-profiling and career control (Preenen, Verbiest, Van Vianen, & Van Wijk, 2015). Self-profiling refers to presenting and communicating one's personal knowledge, abilities and skills to the internal and external labor market. This competency becomes visible in the use of social media in and across organizations targeted at self-profiling and career control. Low-skilled workers' self-profiling is hindered by conflicting preferences, namely, future orientation versus preference for leisure, and their career control is hindered by personality traits, namely, locus of control, exam anxiety, and (lack of) openness to experience (Fouarge, Schils, & De Grip, 2013).

The low skilled or low educated are not able or willing to maintain or increase their skills. They lack an engaging work-related perspective or goal that relates to their

intrinsic motivation and appeals to their personal future. They also lack the ability to convert opportunities into capabilities.

Studying the literature on social media from an economic perspective revealed that jobs are increasingly demanding with regard to advanced computer use in relation to interaction with colleagues and customers. Advanced computer skills are important complementary skills, meaning that the use of modern technology, namely, social media and networks, complements the ability to create and maintain interpersonal relationships. An essential element in the process of sustaining one's employability is the ability to learn how to profile oneself and use social media in this interactionist process of converting inputs into tangible capabilities. For the low skilled and low educated, it is important that they acquire and maintain advanced computer skills, communication and interpersonal skills that enable them to profile themselves, that is, to present their knowledge, abilities and skills.

2.3.3   The social context

Social interaction and participation are heavily affected by modern technology, namely, social media. Over the past decade, social media platforms have penetrated deeply into the mechanics of everyday life, affecting people's informal, social interactions as well as institutional structures and professional routines. (Van Dijck & Poell, 2013). Opinions and facts about these effects are diverse.

Social media constitute the social fabric of the online world and may present the danger of fragmentation of social life (Sunstein, 2001). They can also positively co-constitute new, alternative and innovative forms of solidarity, connectedness and civic engagement (Ester & Vinken, 2004). Social media also threaten individuals with regard to identity formation or psychological well-being, fragmenting identity in terms of multiple windows and parallel lives (Turkle 1997). Social media use also co-constitutes developmental tasks, such as the formation of one's identity and social relations (Paus-Hasebrink et al., 2009).

Sunstein (2001) and Turkle (1997) rightfully acknowledged that technology in itself is neutral, meaning that it is neither friend nor foe, good nor bad. Yet research indicates that technology in the hands of the inexperienced can lead to unwanted outcomes. So how should this information be framed and conveyed in order to enhance strategies for socialization and self-realization?

2.3.3.1   Selective self-presentation and participation.
How are users to take their first steps in becoming accepted and appreciated members of a network? An important aspect of online social interaction in networks, and therefore of networking abilities, is selective self-presentation. Social network sites (SNS) provide new environments and ways for virtual identities to be constructed, visually presented, and narrated. These identities offer socially positive, enabling

outcomes (Valkenburg & Peter, 2011) and are often grounded in offline relationships, thus being bounded by the extent to which users can create 'desirable' identities that would result in positive offline social sanctions (Strano, 2008).

Benefitting from social media as resources or spaces of sociality (Walther, Stauber, & Pohl, 2005; Zinnbauer, 2007) often requires network membership or tangible 'social relevance'. This relevance may be acquired by producing social presence in terms of informational availability (Mejias, 2007; Wittel, 2001). However, the lower educated lack the skills to present themselves, as well as the offline networks needed to get a good start in online networks.

The process of socialization and sustaining employability becoming increasingly conceived as an individualized process regulated by the lifelong learner (Stauber & Walther, 2006). For individual, self-responsible learners, accessing and developing knowledge and resources through social media requires an active attitude and network competencies (Kirschner, Caniëls, & Bijker, 2012; Walther et al., 2005). The characteristics of online strategic behavior and the logics that condition or constrain this behavior, are part of the necessary awareness of network sites, their emergence, function and transient existence (Walther et al., 2005). This awareness is an important element of the media literacy of network users.

2.3.3.2   Socializing and supporting oneself.
Information on the opportunities and affordances of social media to enhance participation remains scarce, and is mostly overshadowed by the abundant information warning of their dangers and negative effects (Kenway & Bullen, 2008).

On the one hand, the individual freedom to use media to reconfigure one's sociality or employability can be hindered by contextual constraints or networks' functioning in a socially or economically conditioning way (Carpentier, 2009; De Haan & Sonck, 2012; Stöber, 2004). As emerging structures that mirroring the offline social world in many ways (Carpentier, 2009; Schäfer, 2008), online networks may produce or reproduce social inequality, self-interest or nodo-centric tendencies that filter the social (Mejias, 2007). Norms and values negotiated in the online world are also influenced by traditional norms and values (Carpentier, 2009), and may therefore collide with the old ones, that is, "*values, traditions and experiences that are grounded in their culture, religion or social position*" (Livingstone, Mascheroni, Dreier, Chaudron, & Lagae, 2015: 4). These collisions makes it hard to come to terms with one's online life and practices (boyd, 2014), as we also found in our second study (see chapter 3).

On the other hand, the individual capability to use media to reconfigure one's sociality or employability depends on skills, motivation or attitude and can be impaired by a lack thereof (Livingstone et al., 2012), thereby determining the degree of participation in communities or networks (Preece & Shneiderman, 2009). Spending more time among others, with more autonomy, and learning from each other in informal ways, becomes a crucial, stabilizing factor in the lives of modern youth (Du

Bois-Reymond, 2000) and also contributes to new ways of developing individual systems of social capital. This type of informal, networked learning that contributes to individual systems of social capital is increasingly important and requires networking abilities (Walther et al., 2005). The freedom to act on one's own behalf and positively impact one's life is not always welcomed or converted to maximal participation. Because the structuring principles of self-responsibility and self-realization create ambivalence and risk, demanding continuous reflexivity and contingency planning (Walther et al., 2005), not everyone is inclined to act on their own behalf and individually determine their own life-course (Vinken & Diepstraten, 2010).

To sum it up, the creation of sociality, in all of its situated distinctiveness, requires a certain degree or type of media literacy, including networking abilities, that contributes to informal learning processes and the development of individual systems of social capital. Providing information about strategies for socialization and self-realization; covering the effects and opportunities of social media use and the importance of informal learning remains necessary.

2.3.4 *Availability and quality of information*

In the following section we aim to explain the role of informational availability and the socially constructed quality of information as important aspects of both economic and social online participation.

In an economic context, informational objects can function as 'affiliative objects', meaning that objects are always constituted through specific sites and associated practices as 'objects-in-action', and they are identified by relational dynamics of association and disassociation that help people build cohesiveness as a group and help them create, sustain and value identity (Suchman, 2005). This would mean that information is more and more seen as subjective and socially constructed rather than objective, implying that there is no static relation between business information and economic value. This dynamic understanding of informational objects transforms information management into 'management of meaning', as it manages the mechanisms that give meaning and value to facts (Maes, 2003).

In a social context, informational objects can function as "social" (Engeström, 2005), or "evocative objects" (Turkle, 2004). In this sense, informational objects connect people and spur their conversations embedding these objects, which are pivotal in narrative construction (Engeström, 2005; Harré, 2002). From another point of view, these objects allow people to learn intersubjective and develop situated knowledge by telling each other stories about their experiences (Turkle, 2004).

For economic and social contexts, we observed that information is one of the most important assets for sociality and employability. In both types of contexts, the concept of 'object-centered sociality' has left its marks in research. Put differently, the social or economic value or perceived quality of information fully depends upon the meaning

people attach to that information through interaction and dialogue, and to the contexts the information is embedded in; information is not just affected by its environment, but is itself an agent affecting other elements in the environment (Maes, 2003).

Studying the literature on social media from a social perspective revealed that the creation of sociality, in all of its situated distinctiveness, requires certain elements of media literacy, including reflexivity, contingency planning and networking abilities. These elements are constitutive to informal learning processes and the creation and exchange of social capital. Active, informal, socializing media use in different social contexts can not only engage the disadvantaged but also aid in the development of literacy.

2.3.5   Education as a building block in a participation-enhancing opportunity structure

In this section we address our third research question: How do elements of media literacy relate to enhanced learning opportunities for social and economic participation?

In seeking to answer our third question, we turned to education as the pivotal, social condition that is devised to unlock human potential, counter social inequality, and function as an accessible and affordable opportunity structure for all. Although schools have been very useful in addressing the first digital gap, that of access, the second digital divide has proven to be a more subtle and unruly problem (Pedró, 2010). Part of the subtlety lies in the policies that govern the implementation of technology in schools and their curricula. National policies tend to limit media literacy issues to the economic and commercial use of ICT and to limit the skills that match this use to educational outcomes that reside on economic agendas (Celot, 2012; Livingstone & Bulger, 2013). Institutional policies tend to limit the use of ICT and the skills that match this use to aspects of the organizational and administrative effectiveness of the school organization (Hrastinski, Keller, & Lindh, 2009). Meanwhile, the rather functionalist perspectives on technological skills that came with the large-scale introduction of technology hampered expectations about equality and performance (Pedró, 2010).

Many countries adopted educational policies directed toward the use of technology for pedagogical purposes that anticipated more collaborative, student-centered and student-shaped pedagogy (Fraillon, Ainley, Schulz, Friedman, & Gebhardt, 2014). One obstacle hindering these purposes lies in the fact that the use of technology in schools and in the curricula strongly depends on hard-to-influence, second-order barriers such as teachers' motivation and beliefs (Ertmer, Ottenbreit-Leftwich, Sadik, Sendurur, & Sendurur, 2012). As a result, teachers' uptake of technology varies greatly within as well as across countries (Fraillon et al., 2014). These teacher beliefs are hard to change (Ertmer et al., 2012) and even harder to manage. For example, Dutch teachers criticize the lack of consensus within schools about the role and function of ICT in pedagogy and

curricula, which affects intrinsic issues concerning second-order barriers such as motivation, confidence and beliefs. Dutch education still has no comprehensive media literacy program. However, school leaders are more concerned with addressing traditional first-order barriers such as infrastructure and resources (Meelissen, Punter, & Drent, 2014). What remains is the discomforting thought that whatever is not taught at school can be seen as the problem, challenge or burden of the individual citizen. Or as Livingstone et al. put it:

> …the responsibility for those that do not learn all that is needed in a digital age is differently conceived depending on whether media literacy is considered an individual or a societal prerequisite (2012: 3).

The low skilled or low educated are not able or willing to maintain or increase their skills, or do not acknowledge that there is a problem at all. They lack an engaging future perspective that relates to their intrinsic motivation and appeals to their personal future orientation. Yet education offers no direction, program or support.

When we look at the motivation and trainability of the low skilled and low educated, a media literacy program would suggest the need to further investigate student learning styles, as well as students' motives and preferences (Christ & Potter, 1998). People with low proficiency are easily caught in a 'low skill trap', as they are less likely to participate in learning activities. As a result, they may even be excluded from further analyses and left out when interventions are arranged (Buisman, Allen, Fouarge, Houtkoop, & Van der Velden, 2013). Non-traditional learners have profoundly different motivations and agendas for their education. To recognize the structuring principle of self-realization forced upon individuals by modernity requires rethinking education, that is, planning teaching to meet these challenges and serve learners' needs at different levels of media literacy.

The research finds that the low skilled or low educated are absolutely not convinced about the necessity of maintaining or increasing their skills (Buisman et al., 2013). Although most of the data on adult skills are only descriptive and not informative with regard to non-routine interactive skills or complex communication, it is interesting (and alarming) to take a closer look.

Of all of the respondents with a low literacy level, 98% find their own skills sufficient. Of the low educated who are in a job, 91% find their own level of education sufficient or even too high for the job; 60% are in a job that requires no initial qualifications; 80% say they need no further training; 46% say they hardly use their reading skills at work. The enduring low participation rates in lifelong learning across the EU suggest that many adults have not learned to maintain or increase their basic competencies after leaving compulsory education. It is as yet unclear how causal relations between the training and development of core skills by adults, including media literacy, can possibly be measured and described, as scores achieved on core skills appear to be also positively related to various aspects of informal learning (Buisman et al., 2013).

2.3.6   Education and learning for life

An initial result we drew from the literature is that media literacy is mostly studied in relation to educational strategies in the developmental context of formal learning programs and interventions. Researchers seem less interested in the possible relation of (critical) media literacy and social network sites with non-age-graded transitional needs or tasks (Levinson, 1986), requiring non-formal situated learning, for example, the lifelong learning required to face critical transitions in the adult life course (Heckhausen, Wrosch, & Schulz, 2010).

A second result we drew from the literature is that low-skilled or low-educated adult users are not targeted in media literacy research because they are hard to reach with educational programs. Buisman et al. (2013), for example, argued for excluding the lowest PIAAC category, namely, those hard to reach and train, illiterate adults, from further national data analysis. Including this category would probably obstruct the effective design of educational interventions or the effectiveness of the interventions themselves.

A third result we drew from the literature is that low-skilled or low-educated adult users are not targeted in media literacy research because they are considered 'non-traditional learners', that is, adult students with special circumstances, special needs and special learning preferences (Ross-Gordon, 2011). Most educational institutions find it hard to tailor their programs and support structures towards these learners, although the advent of non-traditional learners dates back to the seventies. Kerstiens (1975) was probably one of the first to suggest that the use of various media could provide a way of "de-monopolizing instructional space", for example, decoupling programs for non-traditional learners from brick and mortar schools, allowing non-traditional learners the choice of when and where to encounter instructors in order to develop and prove their competencies.

2.4   CONCLUSIONS

With regard to the economic and social contexts, we found signs of the constraining and demanding influence of these contexts on media literacy practices. So-called 'good governance of skills' (Smid, 2012), often translates into politically and economically favored, utilitarian notions of 'the right kind of skills'.

The concept of media literacy also faces contamination from and competition with related concepts such as digital literacy, computer literacy, ICT literacy, information literacy, and the like (Bawden, 2001). Just as media literacy education is a multifaceted and contested phenomenon, so is the concept of media literacy (Martens, 2010).

The research that we found on media literacy regularly limits itself to age-related developmental issues and questions. Narrow attention to age-related and age-graded

topics, such as identity development in the formative years, is rightly critiqued, because certain age groups are underrepresented in the research, and certain alternative media and networks are not covered (Grimes & Fields, 2012; Lovink, 2011). This means that developmental topics, which are essential in understanding the transformative years of adults and which relate to issues and questions of lifelong learning, are barely covered in research on media literacy. Our study indicates that challenging conditions emerge across the entire life course. There is no life stage without social and economic challenges that require learning through social interaction. Yet non-formal lifelong learning, which has become extremely important for older generations of non-traditional learners, is sparsely addressed in research on media literacy.

2.4.1   Elements of media literacy relevant to social or economic participation

From our observations, it became clear that social and economic participation rely on the ability to create, share and evaluate information in collaboration and should be informed by the awareness that audiences view the epistemological or ontological quality of information as important or relevant.

With regard to levels of basic skills, the literature shows that advanced communication skills and interpersonal skills are extremely important for sociality and employability, difficult to teach and assess and therefore rarely present in modern-day curricula. Both skills are complemented by technology-related skills.

Elements that are relevant and important for communication skills are:
• self-profiling / self-presentation.

Elements that are relevant and important for the creation of *interpersonal relationships* are:
• informational availability;
• social networking skills (network sociality).

2.4.2   Education as a strategic building block

An engaging type of informal, socializing media use in different social contexts is an opportunity to get disadvantaged groups online, get them engaged and have them develop the necessary skills to ensure that they participate actively (De Haan & Adrichem, 2010; Livingstone, 2005; Paus-Hasebrink, et al., 2009). Signs and signals of the increasing importance of technology-related literacy, often in combination with advanced communication skills, have been evident for several years. Considering learners' preferences and traits as the bottlenecks of trainability and employability, we argue that attitude and motivation are the critical points of engagement that should be addressed by research and educational interventions aiming at enhancing the participation of the low skilled or low educated through a comprehensive media literacy program.

There is also a need for further research on the possible relations between a field-specific habitus (Papacharissi, Streeter, & Gillespie, 2013) governed by media logic (Van Dijck & Poell, 2013) and field-dependent, social, economic, cultural and personal outcomes (Helsper, Van Deursen, & Eynon, 2015). In effect this need for further research mirrors Kaplan and Haenlein's definition of social media we started out with.

The number of peer-reviewed articles we encountered turned out to be too small for our purpose of informing educational design, other than proposing a pedagogy that rests on critical reflection on situated literacy practices. We do, however, propose a model (Figure 2.1) that may function both as a heuristic framework for future research on media literacy, i.e. field specific participatory habitus, and as a reflexive model that may inform critical pedagogy concerning media literacy in relation to social and economic participation and the media logic that governs both types of participation.
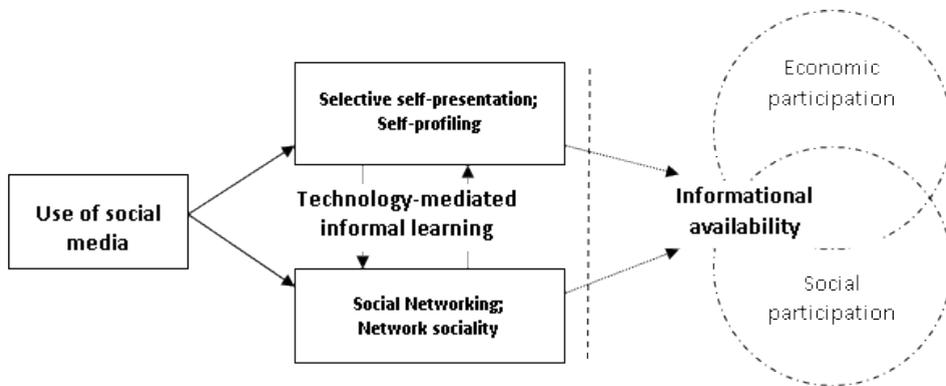
Figure 2.1 Technology-mediated informal learning

This framework presumes that the social and the economic contexts or participation are no longer strictly divided. Dissolving this demarcation implies that social and economic categories can be identified, studied and elaborated in unison. An example of such an elaboration is the economic concept of markets, which, according to Smith, "are not simply embedded in social relations, they *are* social relations" (Stark, 2000: 3). Another example is the sociological concept of constructivism, which according to Maes (2003) also applies to business contexts in which the meaning of information is socially constructed.

2.4.3 Limitations

The limitations of this study in part concern the methodology, that is, selection of a representative body of literature on the subject of media literacy in relation to the economic and social participation of the low skilled and low educated.

One of the limitations of using descriptive OECD statistics is the fact that the measured constructs, such as basic skills, core skills or foundation skills, do not necessarily map onto the concept of 'media literacy'. They did, however, provide an impression of the corresponding levels of technology-related literacy that we assume as being at least indicative of being low skilled and low educated.

2.5   DISCUSSION

Our approach to media literacy has a few important methodological caveats. The first concerns the use of the search terms, especially the term 'media literacy'. Research and reviews showed us that literacy concepts are often synonymous and not conclusive enough. When searching with the string ("media literacy" AND "social media") and filtering for journal articles from 2007 on, the 573 hits produced six different descriptors relating to literacy concepts and covering a range of 526 hits across these concepts: Media Literacy – 246; Literacy – 75; Technological Literacy – 61; Information Literacy – 51; Literacy Education – 47; Computer Literacy - 46. Second, the final number of hits after filtering for relevance was too small to serve as a basis for further study of conceptualizations of 'media literacy'.

A broader view or frame of reference does not suggest transferability of media literacy as set of skills, as proposed by Lonsdale and McCurry (2004), for example. There may be consensus that situation-specific aspects are more important than the trans-situational aspects of literacy (Steyaert et al., 2000). Yet a multiliteracies approach has not changed the terms of the debate about an autonomous, 'real' media literacy model versus an ideological, 'situated' media literacies model, as situated studies have often operated with the same categories (Collins & Blot, 2003). What education lacks is a set of generalisable criteria by which to assess media adoption, interpretation and use (Livingstone et al., 2012; Markauskaite, 2006).

We also found that, apart from aspects such as media literacy, proficiency or ability, not all individuals are equally inclined and willing to face this challenge of self-responsibility or self-realization. Therefore it also seems important to consider and question whether individuals' motives measure up to the demands of being active, engaged and self-responsible learners and what it means for education when they do not. The question then is not simply whether individuals possess the skills to access and develop knowledge and resources by means of experiential learning in informal networks, or how the concept of media literacy can be operationalized and assessed for educational purposes. The question is mainly whether individuals are motivated to develop the attitude of active, self-responsible lifelong learners, what these motives consist of and what they are related to. Perhaps acknowledging and exploring a third divide, next to access and skills, will bring us nearer to understanding the problems of motivation and attitude surrounding literacy issues.

If our understanding of literacy practices and social and economic participation is to encompass processes of acceptance and rejection, inclusion and exclusion, appropriation and disappropriation, moralization and justification, we have to broaden our view of media literacy and incorporate attitudinal and motivational factors related to technology use and literacy practices. If our scope and intention is to endow our youth with the capabilities to envision new knowledge (Langer, 2011), forge their own possible, social futures and use network sources as individualized systems of social capital (Stauber & Walther, 2006), there is no reason to leave out older generations who are apparently already living their futures, but have by no means forfeited their right to shape and redesign these futures. So the major question remains if learning opportunities concerning media literacy are offered at the right time, in the right form and distributed over the lifespan in the best possible way?

Chapter 3

Early school leavers' attitude towards online self-presentation and explicit participation

Active participation in economic and social settings increasingly demands social-communicative skills, i.e., interactive and interpersonal skills, as well as the networking skills to access and use resources provided by online social networks. The development of these skills both depends upon and determines the proficient and strategic use of social media and explicit participation in different types of formal or informal networks and communities. Low-educated early school leavers (ESL) typically lack the access, awareness and attitude required to develop these skills, suggesting a widening digital divide or participation gap. This study presents results regarding low-educated ESL's attitudes towards social media and social networks as a factor that can influence the conditions and opportunities that determine or enhance their economic and social mobility and improvement. The data were analyzed by means of 12 cases. Looking beneath the surface of a complex compound problem involving cultural, social and attitudinal factors, we found signs of ambivalence or even conflict in attitudes, stemming from personal doubts and insecurities or contextual fears and restraints. These attitudinal thresholds should be overcome by aiding and supporting these young people as much as possible in gaining leverage in the online world of 'haves and have nots'.

3.1   INTRODUCTION

The massive uptake of the Internet and social media by young people and participation in online networks in order to find and express one's voice, form friendships and socialize and participate in social and cultural settings of exchange and construction can be seen as a reaction to demands and successive expectations with regard to the self, due to modernization.

Modernization can be characterized as a process of increasing interconnection between globalizing influences and the human condition. This human condition encompasses life course transitions in both everyday private life and career life and extends from social to economic participation. An individual nowadays can and sometimes needs to shift from one social position to another (Bauman, 2000), constitutively altering his or her personal dispositions and preferences (Giddens, 1991) in moving from one pragmatic regime to another (Thévenot, 2001) as a result of this interconnectedness. Social order arises from the sharing of pragmatic regimes. Pragmatic regimes signal the human desire for certainty, i.e. the agreement on action and adjustment of resources to action. These regimes are characterized by 'investments of form'. The notion of 'form' refers to the relationship between objects, e.g., modern technology, upon which actors rely and the role of these objects in the co-ordination of actions. The emergence of 'form' depends on the human investment in coordinated actions that shape the world by forging likeness, contribute to homogenization across contexts and help maintain a certain level of generality (Thévenot, 2001).

Modernization comes with heightened self-responsibility, as this depiction of contemporary society brings with it an individualization hypothesis specific to our late modern era. The hypothesis is that the significance and role of traditional socioeconomic factors, pathways and choices concerning life-style and life-course, have weakened due to the eroding influence of public institutions, and the values, believes and norms they represent (Houtman, 2004). The 'late modern' human condition is furthermore characterized by the constant reflexive reform of social practice (Giddens, 1991) and restructuring of public space (Wellman, 2001; Wittel, 2001). Choices and successive pathways are no longer linear and irreversible, and forward planning must be backed up constantly by contingency plans (Stauber & Walther, 2006).

3.1.1   Modern youth's responsibility: a turn for interactivity and reflexivity

The human condition previously discussed requires a certain agency on the part of modern youth in order to cope with social and economic transitions. Pohl et al. conceptualize the agency of modern youth in the context of social change, e.g., transitions to adulthood and work, and define it as:

> … the capacity of an individual to act, (…), while action refers to a single activity influenced or resulting from agentic processes. (2007: 7).

In order to stress the interactionist and dynamic character of the concept, they speak of 'agency within structure', with subjective motivation as the central aspect of the relation between individual agency and social structure. They see learning and culture as key intermediate dimensions of agency, which can involve altering one's personal disposition in a reaction to or in anticipation of circumstances, shifting one's social position, and subsequently reforming one's social practices (Pohl et al., 2007).

Learning, i.e., the agentic process of internalization and understanding of experience, is characterized as non-formal, experiential and explorative. This conceptualization of learning indicates the 'reflexivity' through which individuals internalize experiences in informal, social and cultural contexts and transform these experiences into practical skills, thereby laying the groundwork for future action. Culture, i.e. the agentic process of negotiation, development and sharing of practice, is characterized as a dynamic system of both meaning and a repertoire of actions through which individuals share values, principles and norms. This conceptualization of culture indicates the 'interactivity' through which individuals individually and collectively express, interpret, contest, negotiate, understand and share the meanings of different choices and practices, thereby outlining the playing field of structures or social formations, such as relations, networks and communities, that agents act within and upon (Pohl et al., 2007).

The highly reflexive and interactive shifting and shaping in everyday situations and transitions exemplify what can be seen as 'dilemmas of the self' (Giddens, 1991). These dilemmas are often related to either a demand imposed by structural limitations or contextual constraints, or a desire to exert free will on the part of the human agent. Active participation of the self in social and economic transitions resulting from change, e.g., late modern de-standardization of pathways, or resulting in change, e.g., collectively agreed-upon practice and patterns, becomes increasingly decisive for young people when tackling issues concerning sociability and employability (Stauber & Walther, 2006). Activation policies devised on the basis of the individualization hypothesis should acknowledge the disengagement of modern youth with formal support, the regular transition system and its regulators, should recognize informal learning and informal support as complementary and should fully integrate subjective factors related to motivational change (Walther et al., 2005).

3.1.2   *Early school leavers: conditions that affect disengagement*

ESL are a group that accounts for a large share of disengaged low-educated youth in the Netherlands. In this section we focus on a sub-category, labeled as 'quitters', and present data and research on ESL in order to describe early signs of disengagement.

Reducing youth unemployment is an important goal of Dutch youth policy. These efforts are combined with a specific educational policy that aims to decrease the annual number of ESL, because an impressive number of students still drop out of school on a yearly basis. Dutch youth are identified and officially labeled as ESL when they leave school without a basic qualification and are 12 to 23 years old. A basic qualification is a degree or qualification at a senior general secondary, pre-university, or level-2 secondary vocational level. Holders of a basic qualification are capable of carrying out relatively complex routines and standard procedures within their own field of work. ESL makes up a substantial portion of the low-educated youth in the Netherlands. Low educated are defined as persons whose highest level of education is primary education, a lower level of preparatory vocational education (vmbo) or secondary vocational education (mbo), up to and including basic qualification at level 2 (Dutch Statistics Netherlands Bureau).

Dutch ESL are categorized as either classic 'at-risk youth' or 'quitters'. Quitters are students who typically drop out of school because of their disengagement with school (Eimers & Bekhuis, 2006). A significant number of Dutch ESL, ranging on average between 25% -50%, are defined as 'quitters' (Meng, Coenen, Ramaekers, & Büchner, 2009).

Current Dutch ESL policy consists of two different approaches or sets of measures, guided by two alternative perspectives: prevention and cure. The vision is straightforward, directing all efforts to students' attainment of a basic qualification, as leaving school without a basic qualification is a known predictor for unemployment, poverty and even social exclusion (Eimers & Verhoef, 2004) and combating inactivity and unemployment requires mandatory participation (Eichhorst & Konle-Seidl, 2008). The principal focus lies on prevention, meaning that schools are responsible for effective implementation of a range of interventions and held accountable for the final results. So-called curative measures are limited to offering ESL work-study placements. A work-study placement is meant to then enable them to obtain a basic qualification. An additional legislative measure nudges towards self-responsibility by forcing ELS who apply for welfare to accept a work-study placement. Curative measures are called compensation measures in the European policy context (European Commission, 2011).

Recent data show an interesting development over the period 2007-2011. The relative share of ESL in the 18-22 age group grew from 85% to almost 95%; of this 95%, almost 60% are 18-19 years old (School Drop-out Explorer). The School Drop-out explorer is a web-based, interactive tool that works with quantitative and qualitative data on school dropouts at national, regional, local and school level. An ESL factsheet (ROA, 2013), drafted in 2012 and surveying more than 2,000 young people who left school in the 2010/11 academic year, shows that school-related factors associated with drop-out behavior are linked with an increase in the proportion of quitters, from 41% to 51%, over a period of three years. These data imply that schools' preventive measures to tackle disengagement have not been successful. Reported drop-out reasons might

even imply that schools' efforts are mainly directed at classic at-risk youth rather than quitters. A majority of ESL (80%) report they discussed their decision but still 42% claim that no one tried to stop them from leaving school prematurely. The factsheet also labels 27% of the ESL as 'inactive', meaning they are not in school, not working and not looking for work. 'Inactive' youth are called 'Not in Education, Employment or Training '(NEET) in the European policy context. Being inactive means these youth are essentially under the radar and therefore not in reach of public services. This indicates that additional attention and effort in the form of alternative measures should be addressed to 18-19 year old quitters.

3.1.3 How technology-related change affects employability and sociability of low-educated youth

Here we turn our attention to low-educated youth as a general group, in order to draw a clear picture of the conditions and circumstances applicable to low-educated youth in general with regard to society and the labor market, as corroborated by the research. We begin by describing social and economic problems that low-educated youth generally face nowadays. We then continue by elaborating on some additional problems that have not yet found their way into policy and practice and are caused by developments in the labor market and in society in general that can be seen as typical for modernity. These developments are then discussed by narrowing our perspective to the effects of modern technology on the conditions for sociability and employability in terms of possible demands and opportunities with regard to low-educated youth in general. Finally, by relating these conditions to attitudes of low-educated youth towards enhancing their social and economic position and opportunities by means of technology use, i.e., social media and social networks, we aim at better understanding the role of attitudinal factors. Increased understanding of the attitudes low-educated youth might inform future policy development with regard to activating disengaged youth.

3.1.3.1 Sociocultural processes of change.

Contemporary sociocultural processes of change and elective transition are primarily related to the way modern youth address and handle late modern problems of identity formation, sense-making and decision-making on their way into adulthood (Houtman, 2004; Stauber & Walther, 2006). The way individuals tend to address these problems of complexity, insecurity and uncertainty has led to new, collectively agreed-upon, more or less stable and sometimes institutionalized behavioral patterns (Duyvendak, 2004) or pragmatic regimes (Thévenot, 2001).

As the availability of social connections and network resources, which are tangible manifestations of social capital, becomes "more and more decisive for subjectively successful transitions" (Stauber & Walther, 2006: 244), it is important to consider the conditions that influence agreement on patterns of behavior and investments of form,

as these conditions are changing drastically due to the proliferation of social media and online social networks as resources and conduits (Huysmans & De Haan, 2010; Mejias, 2007).

Time and again, low-educated youth show up as lagging behind in statistics regarding more advantageous uses of the Internet and social media (Van Deursen & Van Dijk, 2012). Although modern youth in general, from a comparative age perspective, favor new and interactive media (Schönbach & De Waal, 2010), low-educated youth can be seen as a hard core of non-users (Huysmans & De Haan, 2010; Mariën & Van Audenhove, 2010), who benefit less from modern information sources (Schönbach & De Waal, 2010; Van Deursen & Van Dijk, 2012), feel insecure with regard to their digital skills (OECD, 2011) or even overrate their digital skills (Van Deursen & Van Dijk, 2012). These findings indicate a lack of understanding of the concept of 'active participation' (Schäfer, 2008; Walther et al., 2005). Hence low-educated youth merely develop and display a satisficing taste for the necessary (Robinson, 2009) or the convenient (Van Deursen & Van Dijk, 2012).

3.1.3.2 *Organizational processes of change.*

Contemporary organizational processes of change are mainly connected with the way individuals address and proactively handle problems of flexibility, complexity and sociability (Borghans, Ter Weel, & Weinberg, 2008; De Grip & Zwick, 2005). At the organizational level, economic mobility and employability no longer only depend on educational attainment levels and job-related lifelong learning, as is evident from a growing number of reports and studies that stress the importance of more or less generic and non-cognitive skills (Cedefop, 2009; European Commission, 2011; Schmid, 2012). This rapid change in skills demand, emphasizing non-routine analytical and interactive skills, pertains to all levels of occupations (Levy & Murnane, 2003).

In everyday life, low-educated youth face a number of circumstances that hamper their sustained employability, partly explain their attitude and are not adequately tackled by common policy. Locked up in poorly paid low-level jobs with flexible contracts (De Grip & Zwick, 2005), the low educated are often the first to lose their jobs, as the recent, rapid rise in youth unemployment figures has demonstrated. Job loss is caused by either crowding out as a result of excess labor supply, or economic obsolescence as a result of changes in the task or the work environment (De Grip & Zwick, 2005; Dehmel, 2013; Edzes, Broersma, & Van Dijk, 2010; Humburg, De Grip, & Van der Velden, 2012).

The risk of economic obsolescence is increased by a lack of trainability due to lack of skills and lack of access to informal learning networks (De Grip & Zwick, 2005; Kirschner, Caniëls, & Bijker, 2012) and by a lack of training eligibility due to increased competition for jobs and training opportunities (Borghans, Golsteyn, De Grip, & Nelen, 2009). Low-educated youth apply less for training, as they are often stressed by previous educational experience, unsure if the benefits outweigh the costs or uncertain about

the outcomes, which could even be negative (Fouarge, De Grip, & Nelen, 2009). Because of their disengagement with education, they typically also show recurrent motivational problems with regard to education and training (Fouarge, Schils, & De Grip, 2013).

Low-educated youth often do not experience any informal learning on the job due to the routine character of the tasks and the lack of access to learning networks (Borghans et al., 2009; Kirschner et al., 2012). When any form of informal learning may have occurred, certifying this learning experience through the accreditation of prior learning (APL) is generally not applicable for low-educated young people (Straka, 2004), meaning that these learning experiences do not contribute to their career development and employability. Therefore, they stay 'out of touch' with learning, be it formal or informal. Low-educated youth generally lack the social capital that could help them get back in touch with learning, for example, by finding their way back into school (Van Wijk, Van den Dungen, & Fleur, 2012), finding their way into a new job (De Graaf-Zijl, Berkhout, Hop, & De Graaf, 2006), or finding their way in a changing work environment (Kirschner et al., 2012).

In all, low-educated youth face multiple personal and contextual problems that hamper or obstruct their employability and that are difficult if not impossible to resolve for them on their own. Since the labor market has turned more demanding and dynamic, conditional aspects such as lifelong learning, personal development and career planning pertain to what is called interactive employability and have been deemed the responsibility of every individual. Research points not only to the importance of shifting the perspective on the supply side towards different, more or less generic technology-related skills, but also to an attitude that ensures proactivity and flexibility with regard to changes in working conditions, as well as sociability with regard to the use of learning resources and support structures that enable personal development and career transitions.

3.1.3.3   The influences of modern technology on employability.

Since the introduction of the computer into the workplace, studies have been conducted concerning its resulting influence on occupational demands and professional practice. Research on the level of occupations and the labor market has revealed technology-related effects on task content and work activities, needed skills, required levels of computer use (ranging from 'basic' to 'advanced'), wages, career development and job opportunities.

The combination of technological innovation, workplace reorganization and the shift towards a service economy is particularly responsible for the up-skilling demand (De Grip & Zwick, 2005). These drastic economic changes mainly concern skill-related performance in increasingly complex and demanding jobs. However, they not only explain the demand for upskilling, but also have affected the demand for other types of skills. In particular, computer skills and interpersonal skills, e.g., communication and

social skills, have gained in importance at all occupational levels, as the complexity of jobs has increased to a level that surmounts the demand for basic computer skills (Borghans, Ter Weel, & Weinberg, 2006; De Grip & Zwick, 2005; Levy & Murnane, 2003).

Low-educated youth face an increasing demand for more generic skills that are considered non-field-specific (Ramioul, in Schmid, 2012), such as interactive skills, interpersonal skills and communicative skills (Borghans et al., 2006; Levy & Murnane, 2003; Wulff Pabilonia & Zoghi, 2012). These more or less generic, non-cognitive skills mostly depend on or are complemented and augmented by computer skills. The importance of these skills, framed as 21st-century skills or transversal skills, has repeatedly been expressed in a growing number of reports and studies that indicate that all levels of occupation are affected by this type of skills demand (Cedefop, 2009; European Commission, 20118; Schmid 2012).

We consider it needless to elaborate further on the proposition that the conditions for communication and information in businesses and organizational contexts at all levels, i.e., between employers, between organizations and even between employers/ businesses and customers, have changed due to the use of social media and social networks.

There is a general trend towards more onus being placed on enhancing employability for youth who still have to enter the labor market (Green, De Hoyos, Barnes, & Owen, 2013). Employability as a concept has evolved over time from a description based merely on economic variables and metrics, to a dynamic concept that also incorporates the social responsibilities and roles of different actors and stakeholders (De Grip et al., 2004; Green et al., 2013). This dynamic version stresses the interactivity that is required on both the institutional and the individual level. Interactive employability acknowledges the role and responsibility of employers, and of opportunity structures in the labor market (Green et al., 2013). As such, it encompasses all individual and contextual conditions that determine a worker's future position in the labor market. On the basis of this recent version, De Grip et al. (2004: 219) define employability as follows:

> … the capacity and the willingness of workers to remain attractive for the labor market (supply factors), by reacting and anticipating on changes in tasks and work environment (demand factors), facilitated by the human resource development instruments offered to them (institutions).

Although employability has entered employment policy debates as a key element, policies mainly aim at ensuring certainty and security with regard to a worker's responsibility for a future position in the labor market in relation to sustained labor demand. Burdening the low educated with the responsibility "to cope with turbulent situations or deteriorating labor market conditions" (Green et al., 2013: 12), accompanied by employers' consent to disfavoring practices and labor market

arrangements instead of display of good governance of skills (Schmid, 2012), multiplies the effects of educational disadvantage (Walther et al., 2005).

The introduction of social responsibilities and roles into employability issues, policies and dialogue extends the scope of our perspective to attitudinal factors. Interactive employability not only depends on certain skill sets but also on willingness, i.e., the attitude needed to put these skills to good use. This would mean that the ability of low-educated youth to take responsibility with regard to their employability should be improved by a larger emphasis on attitudinal factors.

Research indicates the importance of sociability from an occupational perspective, as sociability at young ages is positively correlated with the importance of interpersonal relations in a worker's current occupation, and computerization and modern forms of work organization complement the importance of interpersonal interactions (Borghans et al., 2006). Research also shows the importance of sociability or interpersonal skills in relation to a broader understanding of employability as depending on the mobilization and use of social support through participation in networks, i.e., social capital, with regard to changing between jobs or finding a new job (De Graaf-Zijl et al., 2006; Van Esch, Petit, Neuvel, & Karsten, 2011). A broader perspective on employability and the attitudinal factors that influence and determine it requires including in our view the social conditions and roles that go beyond everyday working conditions.

These findings indicate that efforts addressing the attitude of low-educated youth with regard to their employability and the role of technology should be not confined to working conditions, but should extend to sociability and social conditions, i.e., the role of social support structures. When we relate interactivity and reflexivity to sustainable employability, we must conclude that the need for interpersonal skills complemented by computer-related information and communication skills requires directing our attention towards attitudinal factors.

3.1.3.4 *The influences of modern technology on sociability.*
The proliferation of modern technology influences sociability, that is, the processes of identity and community formation and social interaction. Modern technology is frequently related to processes of social change that are often referred to as 'modernization'.

Access to and participation in informal networks is seen as increasingly decisive in making sense of everyday personal experiences, in learning from these experiences how to make informed choices (Walther et al., 2005), co-create opportunities and determine favorable outcomes (De Haan, 2004). An online opportunity structure should de facto be understood as a range of options that can be accessed, influenced and augmented through online interaction. In other words, these opportunity structures are not given or static, but can be influenced by agents. Being active online can contribute to the accumulation of advantage, thereby providing 'opportunity structures' through acquiring digital resources (De Haan, 2004). Social opportunity structures (Stone, Berzin,

Taylor, & Austin, 2008) and the kinds of digital resources they may or may not provide (De Haan, 2004) are not the only factors constraining or augmenting human agency.

Access to and active participation in online networks can be highly stratifying, as youth are sometimes constrained by their social context (De Haan, 2004; Mariën & Van Audenhove, 2010; Walther et al., 2005) or not really stimulated to pursue participation in processes of cultural production and social change due to the lack of public reward (Jenkins, 2006; Pohl et al., 2007). Favorable outcomes that might result from active participation in online networks are not self-evident for youth, due to their lack of awareness. This lack of awareness points to the complete lack of attention in education to the opportunities and benefits of such participation, and one-sided attention to risks (De Haan & Adrichem, 2010; Jenkins, 2006).

Closer study of the emergence of these new social practices and patterns often reveals the importance of modern technology as an enabler of sociocultural processes and as the way modern youth handle problems of identity and sense-making (Ester & Vinken, 2003; Houtman, 2004; Jenkins, 2006). The influences become visible, as technology affects social and democratic processes and opens up opportunities for the structuring of social formations or communities in public space (De Haan, 2004; Ester & Vinken, 2003; Rheingold, 2008), often referred to as third space. The effects of modern technology also become visible in the 'local', private space and everyday life of individuals in their family homes (Laermans, 2010), influencing the development of relations and social ties (Mejias, 2007; Wellman, 2001; Wittel, 2001), the formation of identity and friendships (Valkenburg & Peter, 2011) and young people's first steps into cultural and social participation (Jenkins, 2006). These influences are also an indication of the weaknesses in the sociological debate when contemporary forms of solidarity, generality, connectedness and engagement and the underlying attitudes and motives are disregarded (Ester & Vinken, 2003; Houtman, 2004; Thévenot, 2001). The influences and patterns described above exemplify that the mere accentuation and promotion of self-responsibility indicate a misunderstanding of contemporary forms of agency.

Agentic processes of interactivity and reflexivity for modern youth are more and more taking place in online environments with the use of modern technology. These processes provide youth with features and opportunities that are beneficial for the development of identity and formation of friendship and relationships (Valkenburg & Peter, 2011). Young people are attracted to these controllable features and possibilities, which enable experimentation with identity (Valkenburg, Schouten, & Peter, 2005), maintenance and increase in the quality of friendships in line with their needs and interests (Ito, 2009; Valkenburg & Peter, 2011) and participation in the production of culture (Ito, 2009; Jenkins, 2006; Schäfer, 2008). In other words, identity formation, socialization and cultural participation increasingly take place online, to some degree unattended to and unnoticed by, and not always structured, guided or supported by traditional institutions such as family or school (Ito, 2009; Jenkins, 2006; Stauber, 2004; Walther et al., 2005). In the process of appropriating technology, an individual's agency

can be augmented by transferring certain aspects of it - attributing planning agency to computerized artifacts (Thévenot, 2001); delegating social agency to code (Mejias, 2007) - to the technology that is afforded by these online spaces.

Often stereotypically portrayed as a tech-savvy, multitasking generation, active adolescent Internet users should not be universally described by a single set of characteristics (Eynon & Malmberg, 2011; Van den Beemt, Akkerman, & Simons, 2010) and thereby misrepresented when these stereotypical concepts of the sociocultural interactivity of modern youth are used in the process of devising activation policies. Passive users should not be seen as mere 'lurkers'; the importance of online listening or e-listening should be recognized (Wise, Marbouti, Hsiao, & Hausknecht, 2012). Non-users should not simply be regarded as excluded and 'left behind'; the legitimacy of deliberate informed non-use and self-exclusion should be acknowledged (Mariën & Van Audenhove, 2010).

Current research reveals that a lack of online participation by low-educated youth cannot easily and solely be framed as a digital divide and ascribed to a mere lack of access or skills. It would be unwise to portray low-educated non-users in a dichotomous way as excluded, disengaged or lagging behind (Boonaert & Vettenburg, 2011; Iske, Klein, & Kutscher, 2005; Mariën & Van Audenhove, 2010), to treat them as a homogeneous group by promoting socially desirable behavior corresponding with middle-class values (Boonaert & Vettenburg, 2011; Iske et al., 2005) and finally to treat the problem in a unitary way when trying to bridge this dichotomous divide. Digital disengagement should be seen as a compound problem. The underlying attitudes involved refer to complex situations, with personal, motivational and contextual aspects (De Haan, 2004; Mariën & Van Audenhove, 2010; Robinson, 2009; Verdegem, 2011). Fully understanding digital disengagement should also include the acknowledgement of disengagement as an informed digital choice.

When we look closer at interactivity and reflexivity, youth develop different types or genres of participation (Ito, 2009), display different degrees of participation (Livingstone & Helsper, 2007; Verdegem, 2011) and different attitudes towards participation (Boonaert & Vettenburg, 2011; Mariën & Van Audenhove, 2010; Robinson, 2009), all of which require further research.

The agentic process of establishing and maintaining an online opportunity structure through interactivity and reflexivity starts off with understanding the dynamics of informal networks (Stauber & Walther, 2006), in concurrence with the social relevance of self-presentation within these networks (Mejias, 2007). This process of valuing, selecting and participating in networks also requires awareness of nodocentric tendencies that may impose certain economics and subordinate or filter out the social (Mejias, 2007), reciprocal effects that pose demands with regard to informational availability or expected presence and salience of disclosure (Mejias, 2007; Trepte & Reinecke, 2013) and controllability of privacy aspects (Stutzman, Capra, & Thompson, 2011). Although network sociality can turn out to be strictly self-centered (Mejias,

2007), ephemeral, short-lived and loosely knit (Wellman, 2001; Wittel, 2001), it may just as well function as a stepping-stone towards richer interactions that provide ontological nearness (Mejias, 2007) and result in deeper and longer lasting relationships (Rheingold, 2000; Wellman, 2001).

3.1.4   'Selective self-presentation' and 'explicit participation' as sensitizing concepts

Focusing our research perspective on the online agentic processes of interactivity and reflexivity in the life world of low-educated youth and studying literature that relates to youth's social media use and online networking has led us to adopt 'selective self-presentation' and 'explicit participation' in online social networks as heuristic and sensitizing concepts. These concepts function as guiding devices for further exploring the attitude of low-educated youth towards technology-mediated economic and social participation.

Selective self-presentation is an important aspect of identity formation (Valkenburg & Peter, 2011) and is part of one's personal disposition, as it is closely related to subjective needs and interests (Stauber, 2004). It can best be understood as the control of how one is perceived by others by selectively presenting aspects of one's self to others. Online constructed, visualized and narrated identities can offer positive and enabling outcomes (Mallan, 2009; Valkenburg & Peter, 2011). Deliberate construction, visualization and narration of an online presence, seen as 'selective self-presentation' (Valkenburg & Peter, 2011) or 'social career management' (Benson, Morgan, & Filippaios, 2013), can augment one's sociability and employability.

Social media and online social networks provide individuals with new possibilities of self-presentation and identification in terms of 'ontological security' that is, belonging, safety and trust. They play a central role in the (re)construction of reflexive narratives and dynamic and more fluid day-to-day experience and agency (Walther et al., 2005). They redefine privacy and sociality on the basis of the intertwining of the confines of family life and globalization (Laermans, 2010) and re-establish solidarity, connectedness, and civic and political engagement in public spaces (Ester & Vinken, 2003).

'Selectiveness' indicates the deliberate construction, editing and management of impressions of the self in order to facilitate desired or favorable relationships or outcomes. Selectiveness signifies controllability by the user through certain features of social networks that can be used to construct one's online self-presentation. Youth are especially attracted to experimenting with identity and intimacy in online environments because of the perceived controllability of certain features of these environments, namely asynchronicity, anonymity and accessibility. Asynchronicity refers to the possibility of optimizing one's self-presentation by reflecting on and changing messages before they are sent, hence enhancing the strategic possibilities of narrative. Anonymity

facilitates opportunities for social approval and acceptance. Accessibility increases opportunities to find, create and distribute information, form close friendships and find support from peers (Valkenburg & Peter, 2011).

An important aspect of creating an online presence is informational availability. Selectiveness is not only born out of the needs and interests of the self, it also comes with certain expectations on behalf of the 'other', i.e., expected presence and salience of disclosure (Trepte & Reinecke, 2013). Informational availability is the basis for experiencing social nearness in an ontological sense and it determines the social relevance of the individual 'nodes' in these online networks (Mejias, 2007). It furthermore denotes the communicative sovereignty of individual agents as they participate in networks, and as such replaces traditional 'territorial' sovereignty, or the social importance of physical proximity (Laermans, 2010). This sovereignty is illustrated by the autonomous and selective choice to participate more or less actively and in the way information is refused, received and sent (Laermans, 2010; Mariën & Van Audenhove, 2010; Van Oenen, 2011).

Explicit participation highlights negotiation and decision-making about the appropriation and use of modern technology with regard to issues of mutual concern. Social media and online social networks augment the possibilities for explicit social and cultural participation enabled by the convergence of media (Jenkins, 2006). They play a central role in the emergence of new types of social and cultural engagement and practices (Ito, 2008) and in the construction of knowledge and artefacts through to the collective appropriation and use of technology (Jenkins, 2006; Schäfer, 2008).

An important aspect of explicit participation is network sociality. Network sociality is not biographically rooted and narrational/conversational in nature, but ephemeral, as network ties are weaker and more informational in nature (Wittel, 2001). The social relevance of online participation amounts to the informational availability of the social presence displayed (Mejias, 2007; Wittel, 2001). Nevertheless, network sociality or interaction in online social networks can transform into forms of commitment (Rheingold, 2000) or affinity (Gee, 2004), and hence transcend the pure economics of online networks as information markets, becoming types of interest or friendship-driven participation and engagement (Ito, 2009) that are the result of co-creation of subculture (Schäfer, 2008; Stauber & Walther, 2006) and identity experiments (Stauber, 2004; Valkenburg & Peter, 2011).

The concepts of sociability and employability show a similar type of development. Both are influenced conceptually by modernity, stressing self-responsibility and pointing to interactivity and reflexivity. They are also both influenced conditionally by technology, e.g., accentuating social media and social networks and pointing to related skills and attitudes. We conclude that it is important to further investigate the attitude of low-educated youth with regard to this type of technology use. Research on attitudinal factors is far behind research on skills, often framed as digital literacy, media literacy, information literacy, which is well underway. In addition, activation policies

face the risk of being ill-informed due to rather simple and dichotomous assumptions about youth and their attitudes.

3.1.5 Research questions

Given the described context and problems, the following research questions were posed:

[Q1] What are the attitudes of low-educated early school leavers towards online self-presentation and explicit participation in social networks?

[Q2] What is their perception with regard to risks and opportunities of social media use?

[Q3] What are their attitudes with regard to social change and improvement through online participation?

[Q4] What are their attitudes with regard to economic change and improvement through online participation?

3.2 METHOD

3.2.1 Participants

The participants in this study can be labeled as potentially 'at risk students' or returning ESL. They are all enrolled in special educational tracks in the region of Twente in the Netherlands. These special educational tracks (T1 to T4) can be defined as special arrangements or dual tracks, for youth in the age range of 16 to 23 years old (T1, T2 and T4), or 12 to 20 years old (T3). Table 3.1 gives the descriptive statistics for the participants.

Table 3.1 *Participants' characteristics (focus groups T1 to T4)*

Measure	Participants				
Gender		Male		Female	
	T1, T2, T4*	18	72%	7	28%
	T3**	6	67%	3	33%
	Total	24	71%	10	29%
Age		Mean	VAR (s^2)	SD (s)	
	T1, T2, T4*	18.08	3.66	1.91	
	T3**	15.22	2.69	1.64	
	Total	17.32	4.95	2.23	

* secondary vocational education ** general secondary education

The following 12 cases (Table 3.2) were selected from the original 34 participants on conceptual grounds, as described in the procedure section, for the purpose of further study of their cases.

Table 3.2 *Characteristics of the 12 final cases (selected from T1 to T4)*

Measure	Participants	Male		Female	
Gender		n	%	n	%
	T1, T2, T4*	6	72%	3	28%
	T3**	2	67%	1	33%
	Total	8	71%	4	29%
Age		Mean	VAR (s^2)	SD (s)	
	T1, T2, T4*	18.67	2.25	1.50	
	T3**	16.00	1.00	1.00	
	Total	18.00	3,27	1.81	

* secondary vocational education ** general secondary education

3.2.2   Materials

We used focus groups as the data-gathering technique. A focus group is designed to obtain perceptions about a defined area of interest (Peek & Fothergill, 2007). Focus groups are intended to study the generation of social representations or social knowledge from an interactionist point of view, i.e., the process of how an issue is constructed and changed in a group discussing this issue (Flick, 2009).

As focus groups sessions are more or less structured conversations, we constructed a questionnaire that functioned as a semi-structured guideline. We used the concepts of 'selective self-presentation' and 'explicit participation' in online networks as a frame of reference for the questions. But the questions also referred to self-presentation and participation in the off-line world, in order to get an impression of possible differences and similarities in attitudinal patterns that could be attributed to perceived differences in off-line and online participation with regard to aspects of employability and sociability. While generating these questions we explicitly refrained from using traditional social concepts and models, such as 'community', 'membership' or 'identification', as carriers of meaning in order to avoid what is known as a 'looping effect' (Hacking, 1995). A looping effect refers to the possibility that participants would reflexively react to descriptions and words we introduced into the discussion, for example, by acting out and upon such descriptions and words and their meaning in the discussion.

Questions that were part of the interview guideline and used to get the group discussion on topic and keep on track included:

> In what ways do you use social media? How do you feel about getting in touch with new people online? How do you value online contacts? Would you consider

keeping in contact with your peers who are in the same track 'after hours'? Would you consider keeping in contact with coaches or mentors online? What would be your motives or reasons for keeping in contact online with your peers, coach or mentor? Would you consider meeting new people online and how would you go about this? How do you value online information? Would you seek online help, and if so, what would you expect? How do you behave online compared to off-line? How do you value the way people present themselves online? How would you feel about presenting and promoting yourself online? How would you feel about applying for a job online? How do you feel about personally promoting or aiding in the promotion of the track you're in online?

All transcripts were coded using Atlas.ti. We devised a coding scheme for axial coding, based on the conditional–consequential matrix described by Corbin and Straus (2008).

3.2.3   Design

Our study is framed by low-educated youth's socioeconomic and sociocultural interactions and transitions from a perspective of problematic relational structures. It is directed at attitudes towards social media and social networks that appear as affordances, i.e., controllable features, and opportunities, i.e., resources, within these structures.

We wanted to avoid any possible framing bias or arbitrariness as a result of preconceived traditional sociological concepts or dominant models as a theoretical frame, and therefore decided on using a grounded theory approach for our design. We considered the grounded theory approach elaborated by Corbin and Straus (2008) to be the most suitable for our purposes. Their elaboration can be seen as pragmatic, interactionist and especially suitable when the focus lies on describing how interaction and emotion influence social processes that change and improve individual's circumstances (De Boer, 2011). Empirical grounding starts from describing the raw data by alternating repeatedly between conceptual categorization of the data and reflection. Reflection entails the constant comparison and possible reformulation or abandonment of concepts that have emerged during the process of analysis by corroboration of empirical contentful categories. Corbin and Straus (2008) propose a pragmatic approach to the coding process that entails the use of a paradigm in the form of a conditional-consequential matrix, which guides the process of axial coding. Using the matrix, we focused on revealing underlying emotions, values, inhibitions and concerns from an interactionist view in light of anticipated consequences or outcomes. However, this type of empirical grounding also requires a certain amount of theoretical sensitivity, for example by using sensitizing concepts as heuristic categories (Kelle, 2005). On the basis of our literature review, we used 'selective self-presentation' and 'explicit participation' as sensitizing concepts.

3.2.4   Procedure

We started our data sampling by conducting the focus groups, recording the sessions and transcribing these verbatim. We then analyzed our raw data; first by coding the data linguistically and categorically and next by using a coding paradigm or axial coding scheme to identify relations between interactions and emotions and their conditions and consequences. Reflection and subsequent discussion on intermediate findings led to changing our initial design, by extending the comparative analysis with a multiple case study approach, and narrowing our data set. By means of within- and cross-case analysis we finally ended up describing our results on the basis of 12 case reports. In the following paragraphs we give a step by step account of the procedure that we followed.

First, we decided on using the focus group technique for the sampling of raw data and agreed on a group size between 5-10 participants. A smaller group size more typically resembles everyday discourse and conversation and gives more room for interactivity and reflexivity, e.g., gives each participant enough confidence and room to express his or her opinion and others enough time and room to react, keeping participants from getting distracted or drifting into just chatting. A smaller group size also helps with the problem of identifying individual participants' opinions and views and eliminates the problem of differentiating the statements of participants speaking at the same time or having parallel conversations during the process of transcribing and analyzing the recorded sessions.

Second, we then selected four special 'dual' tracks (T1 to T4) for our different focus group sessions, because these tracks work with low-educated youth who are on the brink of leaving the school system, show a history of recurring exit transitions and for whom these tracks are a last resort. We also selected these tracks because they focus on responsible, social behavior and character building and use experiential, informal learning in the process. We planned the sessions 'on site' and in the presence of the coach, mentor or remedial teacher, as this was also seen as relevant and important for creating a familiar and everyday atmosphere. On the day of the planned sessions, the actual participants were handpicked at random and on the spot by their local coach, mentor or remedial teacher and asked for their consent. This process led to four groups within the agreed group size, ranging between 8-9 participants and amounting to a total of 34. The duration of the sessions ranged between an hour and an hour and a half. The sessions were all recorded and transcribed verbatim afterwards.

Third, we started analyzing the raw data by a process of open coding, consisting of linguistically identifying and conceptually categorizing similarities and differences, and continued this process with axial coding, using the coding scheme we devised.

Fourth, we moved on to a case study approach. This step was informed by the results of the coding process, i.e., the amount (number of quotes) and richness (number of different codes and categories). Initial findings indicated that participants showed idiosyncratic, highly ambivalent and conflicting attitudes towards social media and

social networks. Discussing these findings caused us to reconsider our approach to the coded data. We agreed that a comparative analysis of these attitudes would benefit from further discriminating, coding and comparing individual differences, consisting in both a within-case and cross-case study to further clarify and differentiate aspects of ambivalence and conflict.

Changing our design by introducing a comparative case study led to the final selection of coded data from 12 of the initial 34 participants. Narrowing our data set by selection of each of the remaining 12 participants was mainly based on conceptual grounds, as previously explained. We ended up selecting three participants from each of the four focus groups. We considered the representation of each track to be important, as we assumed that each of these tracks individually constitute aspects of the contextual factors that influence the participants' attitudes we had found thus far.

3.2.5   Analysis

The coding of the transcripts began with an open coding approach. Open coding involved analysis of the text on the level of sentences or complete utterances. We first analyzed the text for the occurrence of expressions concerning the use of social media and social networks. We also used Atlas.ti's option of auto-coding, using a list of words consisting of nouns and verbs that relate to the activity of presentation and participation in the physical and virtual world. Examples of these words are: 'ask', 'request', 'demand', 'expect', 'give', 'take', 'postpone', 'help', 'try', 'apply', 'enroll', 'show', 'tell', 'explain', and so forth. The list also refers to relationships, such as 'parent(s)', 'family', 'friend(s)', 'teacher(s)', 'mentor', 'coach', 'counsellor', 'co-worker' and certain events or contexts like 'absence', 'leave', 'truancy', 'getting expelled', 'getting suspended', 'school', 'workplace', 'public service' and so forth. Then these codes were matched with the occurrence of positive or negative adjectives. We used appearance adjectives, (positive and negative) feelings adjectives, (positive and negative) personality adjectives and condition adjectives. During this coding process this list of words was updated because of the use of slang by some of the participants. The open coding process resulted in a number of subcategories that were refined by successive trials. Examples of these subcategories are 'trust', 'faith', 'security', 'hope', 'support', 'responsibility', 'identity', 'opportunity', and so forth.

We devised a coding scheme for the process of axial coding. A coding paradigm helps focus the attention during the coding process (Flick, 2009). Corbin revised Strauss's coding paradigm into a matrix (Corbin & Strauss, 2008), consisting of the components 'conditions', 'interactions and emotions' and 'consequences'. The coding scheme was used to identify and categorize conditions, attitudes, actions and consequences and make 'causal' or 'relational' connections between the different categories and sub-categories.

In our research, the conditions depicted on the left in the axial coding scheme below (Figure 3.1) are represented by the 'effectuation conditions' and 'opportunity structures'. Effectuation conditions relate to occupational and organizational contexts; opportunity conditions relate to social contexts. The 'interaction and emotion' in the coding scheme or matrix are represented by the attitudes of the participants with regard to the possibility of (pro-) actively influencing or leveraging the participatory processes and outcomes in which they are engaged or the attitudes that obstruct active engagement in participatory processes. Finally the consequences are represented by the anticipated or expected participatory outcomes.
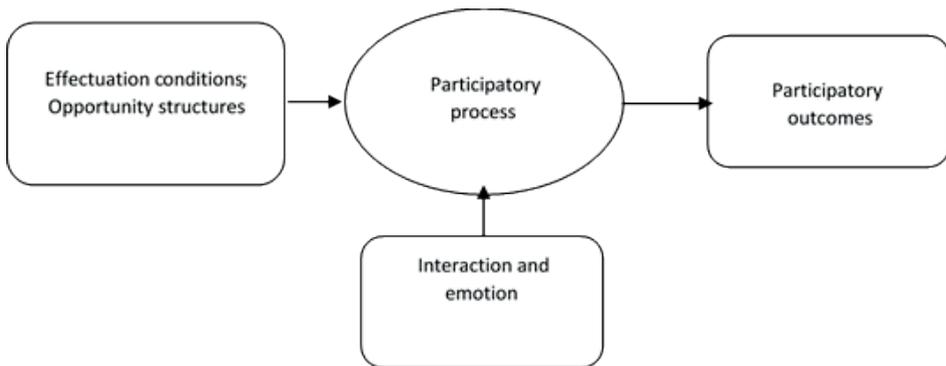
Figure 3.1 Axial coding scheme

These different elements in the coding scheme were used to identify relations between conceptual (sub)categories and to further describe and label the actions and interactions of the participants. Finally, the analytical outcomes of secondary categories were integrated into a core category of technology-mediated self-presentation and explicit participation.

The coded data of the final 12 participants were then used as the starting point for within-case analysis. We again used the matrix and devised coding scheme in an axial approach, to describe underlying attitudes and reflections with regard to social media and networks and the influences of conditions and consequences. This step resulted in 12 case reports with a similar structure reflecting the axial dimensions and elements of the coding scheme. Further cross-case analysis and comparison of the 12 reports was used to look for similarities and differences pertaining to the aspects of selectiveness and explicitness, i.e., technology-mediated self-presentation and participation in networks.

3.3   RESULTS

The focus groups with young people revealed a strong sense of self-responsibility on the part of the participants when it comes to facing their future. The way these young people respond and also react to each other makes it clear that many of them have experienced harsh life lessons. These lessons have shaped their attitudes and ways of thinking. Although in each of their tracks, these young people are organized in small groups to work with guidance on their personal development, the participants in our study make little use of the possibilities for building or enhancing relationships and interacting in social processes online. Their focus stays mainly on the personal, individual level, each coping with his or her problems and finding ways to cope with or anticipate future situations, make proper and informed choices and learn how to 'plan their life course'.

In the following section we use the codes Q1 to Q4 in order to indicate the relation between the findings and our research questions. When using quotes from the transcripts, the participants are identified by the first letter of their first name, their age and gender. We then go into the results of the cross-case analysis to describe similarities, differences and patterns that were detected in relation to our questions.

3.3.1   Social media use

All participants see the growing use of social media around them and accept it as being normal, an almost inescapable necessity and a partly imposed but generally welcomed commonality in modern life. They all use social media in some way or another, with differing intensity and frequency. They show little signs of experimenting or tinkering with it, and use it mainly for leisure purposes such as playing games or keeping in touch with relatives and friends.

Q1	"But it's also like, if someone else doesn't have Internet, then people say something like "Hey, don't you have Hyves*?" It's become that normal to be on the Internet." A (15 y-old female) * Hyves is the Dutch equivalent of Facebook
Q1 & 3	"Yes, you will have to learn to use it, because nowadays everything around you somehow involves computers. Just take a look at the train station, computers all over the place. There are computers everywhere and if you don't own a computer, you're nothing in this country so to speak. Then you've got nothing. When I look at my mother for example, she makes appointments through MSN, that's all quite normal these days. You don't call anymore, you just use MSN, because it's not so expensive, and you just keep on talking." F (17 y-old male)

3.3.2   Selective self-presentation

The participants are barely aware of and speak little about the possibility of using social media to benefit their own development and the development of a private and occupational network. These young people can give few or no examples of social and/or strategic Internet use in their private environment, including by parents and siblings. They are more likely to regard the use of social media for occupational purposes as being unprofessional, for example, with respect to applying for a job, making appointments, and so on.

| Q2 | "Yes, a portfolio could be a good idea, but … when making appointments with school or work, then I would just call or drop in. I think it's quite unprofessional when you make an appointment through MSN or whatever." H (18 y-old male) |
| Q1, 2 & 4 | "… you'd best go there in person, take your school diploma with you, and go where you'd want to work, so people can ask you questions. If you'd only make a video, for example about a bike you have fixed, well. It could be my aunt's bike or the girl next door. You see what I'm getting at? You can fake anything nowadays." F (17 y-old male) |

3.3.3   Network sociality

Most young people regard their own environment (family or friends) as their 'secure' base for the future. However, a few who are not on speaking terms with their parents and/or relatives use the Internet socially, but try to keep this hidden from their parents. Expanding their personal circle of trusted people online does not happen spontaneously or deliberately. Internet and social media are mainly used to play and connect with existing friends.

Only a few of the participants refer to the Internet as a place for seeking and retrieving information.

| Q2 | "You know what's easy? Suppose I want to ask someone something, or want to arrange something. I could call this person, but also send him a message through Hyves, that's free. That's another advantage. Or I'll find an answer through someone else." R (17 y-old male) |
| Q2 | "Yes, but if I want to find out something or so." D (16 y-old female) |

Most participants show a high degree of distrust when it comes to profiling themselves virtually on the Internet. First of all, they question their own strong points that could be

used for self-presentation. They feel they have nothing personally worthy of presenting online on their behalf that they could possibly benefit from. Some admit that it might take some time and future success to feel secure enough to present and promote their own personality and strong points online.

Q1	"Yes, I can't, I don't want to, yes I'd rather not, if I can only report about my failures. (…) If I would have my degree, and would have done a lot of things, than I would want it." D (20 y-old female)
Q1 & 4	"Yes, …, I just wouldn't do it through the Internet and I wouldn't build some site; if they want to get to know me, they will just have to phone me and then I'll go there personally. That's it." H (18 y-old male)
Q1 & 4	I would want to do it, if I would have a lot to be proud of, done a lot of things to be proud of in school. Then I would want to do it. But here you could put things online and then, after say three years of doing nothing, and then trying yet another programme and screwing it up again, that wouldn't look good at all." K (19 y-old female)

Enhancing their group interaction through online activities, for example by using MSN, Twitter or other kinds of messaging is regarded and appreciated quite differently among the participants, ranging from positive to negative reactions,

Q1 & 2	"Now that's not what I would want, spare time is spare time … But that's not what I would want; I'm not such an avid Internet user." K (21 y-old female)
Q1 & 2	"I think that it could work; it's kind of nice." R (17 y-old male)

Establishing relationships with others requires a certain amount of trust, which in turn depends on ideas and perceptions about reciprocity. Trust has been found to exert a stronger effect on social participation than the other way around (Huang, Maassen van den Brink, & Groot, 2009).

   In new social or occupational contexts, the participants indicate that they mostly tend to be cautious and reserved, trying to figure out which way the wind is blowing to determine the contextual conventions before they adopt an appropriate attitude and undertake any kind of appropriate action. They furthermore question the genuineness and authenticity of what is happening on the Internet and the motives of other Internet users.

Q2   "You just wait and see, they're going to use this site for strange things, they always do. Because on Hyves, you get these strange messages and ads and stuff, so uhm ..." K (19 y-old female)

They either indicate that people on the Internet digitally enhance their pictures to make a better impression through their profile or they remark that it would probably be wiser better not to go online publicly, for example, because of visible tattoos and the effect these have on others. Some even refuse to use Internet in social life other than the rapid exchange of text messages and the like with trusted friends and relatives. They also distrust social networks as safe environments for personal information that cannot be tampered with or they view these environments as too transparent, so people, like their own relatives, could trace information that is not meant for their eyes.

Q2   "And if you think, yeah shit, that´s not meant for everybody to know, you know, but on Hyves a lot of people can read everything or on Twitter, you´ll have to keep that in mind I guess. (...) But there´ll still be things online that shouldn´t be." D (16 y-old female)

Q2   "There's always a catch. (...) But on the Internet everybody can see it, even people whom you don't want it to see." A (15 y-old female)

New relationships are preferably established in the physical world, through face-to-face contact, where people can look each other in the eyes and not fake interest or genuineness.

3.3.4   Explicit participation

With regard to actively participating in the construction of online materials, the participants either question their own 'technical' abilities, showing a lack of self-efficacy, or they doubt the professional quality of 'user-generated content'.

Q3 & 4   "... we could be making this video, but would it be considered serious? (...) if I would see some kind of video by two guys talking about school, I would be like 'Yeah duh!'" S (17 y-old male)

None of the participants has any remarks about the possibility of appropriating the technology. Even when the topic of data security comes up, only one of them suggests the possibility of setting features that ensure data security. The discussion on data security indicates that they have no idea about appropriating technology and seem to take technology for granted.

None of the participants is actively engaged in online content production. One of them, for example, indicates that it is too time consuming to get involved in content production even for such purposes as profiling oneself online.

Q1, 3 & 4   "Yes, if it takes more than just a photo, I quit." H (18 y-old male)

They prefer the involvement of professionals with regard to media production, but are willing to participate in the production process as attendants who are interviewed.

Q3 &4   "… then it would be something like an adult talking to youth, and I like watching this, because adults are considered more professional …" S (17 y-old male)

They believe in the effect online messages on network sites like Twitter, Facebook or Hyves could have on family and relatives who are misinformed or biased by their own ill-informed opinions. So they would like to get the message across. However, some of them doubt the impact of these messages on the school teachers for whom these messages might also be intended. They regard school teachers as being traditional, stubborn and not quite open to this kind of communication.

3.3.4.1   Cross-case findings

In the section below, the findings from the axial coding are categorized along the lines of the four research questions.

> [Q1] What is the attitude of low-educated early school leavers towards online self-presentation and explicit participation in social networks?

For all of them, online networks are a place where personal experiences, thoughts and feelings can be shared through messages and pictures.

Most participants take a rather straightforward attitude towards social media, either conditioned by the implicit demands of using ubiquitous technology, for example, driven by the need to do electronic banking, or the more explicit and obvious consequences of its use, for example, structured by the convenience and comfort of online shopping.

Only a few of them are currently engaged in gaming, although most of them have once been. Whenever gaming comes up, it concerns multiplayer games in which online communication and collaboration are pivotal. Although some participants have noticed that younger kids from their own social background have learned from 'being on the computer'—for example, learning English informally through gaming—they do not indicate that social networks can be a learning resource. Only two participants explicitly

indicated that the Internet or social networks can be seen and used as a source of information or support.

> [Q2] What is their perception with regard to risks and opportunities of social media use?

All of the participants seem to understand and repeatedly refer to the potential risks and dangers of social media use in the context of daily life. The risks they refer to are the possible misuse or abuse of online personal information by strangers, the abuse of online personal information by known contacts as in cyber-bullying, for example, in a personal quarrel or feud, and the possible negative effects on others, mainly in a professional context, when personal information disclosed online could harm one's public image.

All participants take technology 'as is' or for granted, and do not indicate that they consider technology as something that can be appropriated for personal purposes or can do anything more than substitute what is traditionally used for communication and interaction purposes in the off-line world. There is no mention of negotiating social media use in terms of the 'do's and don'ts' in the sense of collectively appropriating and deliberately establishing 'rules of conduct'.

The only options and features that are mentioned are the possibilities of 'pimping' one's online profile in terms of a photograph or more cosmetic options such as setting a background photo or color. A few of them indicate that appropriation would have to be rather simple before they would consider using and tweaking certain technological features and invest any time in the process. This came up when asked, for example, about the possibility of viewing an online network account as a portfolio.

> [Q3] What is their attitude with regard to social change and improvement through online participation?

Only a few participants reflect consciously on contextual social constraints, indicating that social rules and conventions common to their off-line world possibly apply to the online world as well. For example, some of them perceive online contexts as not inherently social, authentic or life-like but as consisting of mere data. There is also the impression that technology-mediated contexts and messages may intentionally evoke and condition certain behavior, or that certain behaviors, such as constant contact, are seen as socially inappropriate.

Acting more strategically when this is triggered by the online contexts in order to achieve certain intended or desired effects mainly concerns 'shutting down', either in case of overexposure or to avoid meaningless trivia. This type of behavior indicates an apparent lack of established 'rules of engagement' for the online world.

Some of the participants face the tension of having a positive attitude towards social media but being confronted with negative, demeaning attitudes, for example, by parents or adults who forbid the use of a social media and networks. Some feel both

positive and negative, as they value the way online interaction and contacts can brighten up everyday life, which can be a bore or a drag, but yet experience anxiety about the threats of misuse of one's personal data by strangers or even by known contacts, or the fear of missing out and fatiguing effects of extended social media use in terms of overexposure.

Other participants who are not regularly confronted with negativity sometimes still feel the internal tension and conflict induced by either insecurity regarding their own personal skills and competences or insecurity about the expected lack of positive social recognition in the outside, adult world.

[Q4] What is their attitude with regard to economic change and improvement through online participation?

None of them mentions possibilities of strategic social media use for professional or occupational goals. None of them has even heard of such possibilities or has been taught in any way about the influence of social media in professional life, for example, with regard to online collaboration, recruitment, job applications and so on.

On the basis of the cross-case analysis of the 12 case reports, we distinguish three separate types of attitude regarding social media use in general and when it comes to the social and economic context in particular, which are presented and described in Table 3.3, Table 3.4 and Table 3.5. However, this distinction is not strict or mutually exclusive, because an individual participant can show aspects of more than one type of attitude depending on contextual differences. For example, most participants relate social media and networks, if valued and used, solely to their social position and context and not to their economic context and position. Even within contexts, as in the closer-tied personal context of family and friends, the attitude of an individual participant can differ. These somewhat ambivalent and sometimes conflicting attitudes of participants towards social media use denote certain tensions which point to signs of internal conflict, induced by insecurity, fear and a lack of self-efficacy, or by contextual constraints and circumstances.

Whenever the axial coding process indicated reported contextual constraints or tensions, the possibility of conflicting attitudes increased. For example, some participants see it as normal to engage online with friends, but yet consider it to be 'dangerous', 'unwise' or 'not done' because their parents have strictly forbidden it. This conflict also points to situations and contexts in which the dismay of parents or teachers with regard to Internet use possibly stems from the socially-laden disapproval of any extended, leisure and frivolous use of the Internet, especially by those who have failed themselves and society (Livingstone & Helsper, 2007).

Table 3.3 *Participants negative attitudes towards social media use*

Negative attitude
Do not allow or want social media to be a part of their social life.
Do not value technology as being social.
Consider social media and social networks as mere computer data.
Do not want to invest in social media use considering the doubtful return.
Think that any use of technology should not take too much time or be mentally demanding and consider it rather a necessary evil.
Do not see a role for social media in professional life; still prefer traditional 'old school' media for communication in a professional context, for example, when making appointments or applying for a job.

Table 3.4 *Participants neutral attitudes towards social media use*

Neutral attitude
Consider social media as an integral part of social life but do not contemplate or reflect on the use of it.
See it as a natural extension of face-to-face interaction on a regular, day-to-day basis, with relatives and friends.
Understand the risks of using it (privacy, security) but do not negotiate its meaning or appropriate its use; consider it technology whose purpose merely is 'what it does'.
Do not conceive it as something that enhances opportunities or instills power in the user.
Take it for granted and turn it off, in case of any annoyance or fatigue as a result of the use of social media by others or excessive use by themselves.
See it as a part of a larger 'set' of social technology that is infiltrating human life, such as technology that is used for transactions (electronic banking, online shopping, et cetera) substituting for traditional forms of communication, transaction, and interaction, and hence do not see it as something that specifically characterizes a certain generation.
Would not want to use social media in the dual track they are in, limiting it solely to their private life and not wanting to connect their private life with the track.
Did not remark on what is called 'absent presence', meaning that people who are physically in the same room are still absent because of the use of social media, which could be considered socially inappropriate.
Most admit to having defriended many of their former contacts since their early Internet use at a younger age.

Table 3.5 *Participants positive attitudes towards social media use*

Positive attitude
Embrace social media as an enrichment of daily social life and see it as something that adds value as it opens up opportunities for keeping in touch with distant friends and relatives or maintaining a larger network that cannot be maintained on a face-to-face basis.
Do not, however, use it to create new friends or connections but only to connect to and engage with people online who are already acquaintances in the off-line, face-to-face world.
Would value the use of social media to promote the track they are in (as an example) and acknowledge the usefulness of such an action.
Do not see it as something they should do on an individual basis.
Doubt the social and public recognition this kind of action would receive if not undertaken on a professional basis.
Would like to tell their story 'on camera' but would also prefer a professional cameraman and interviewer to make the video.
Seem to think and imagine that appropriate media use requires some kind of old school professionalism.

3.4   DISCUSSION

This study presents the findings from 12 cases concerning youth who are on the brink of leaving the school system or have just returned to the system to give school another try. The findings show that these youth are reluctant or hesitant in using social media to present themselves and engage with others online for the purpose of enhancing their chances of social or economic participation.

> [Q1] What is the attitude of low-educated early school leavers towards online self-presentation and explicit participation in social networks?

Low-educated, under-qualified youth seem to show a rather straightforward range of attitudes towards self-presentation and explicit participation in networks, i.e., embracing, accepting or rejecting it. Those who use social media of their own accord limit its use to leisure purposes and being interactive with relatives and friends.

> [Q2] What is their perception with regard to risks and opportunities of social media use?

The participants are generally well informed about the risks that accompany or result from Internet use, but they are not aware of the opportunities and benefits in both social and economic contexts. There are no signs that aspects of Internet use, such as selective self-presentation or explicit participation, have been addressed in any of the contexts, home, school or work, in which they engage.

These findings support claims that education should reframe its perspective on social media and Internet use in social and societal contexts (De Haan & Adrichem, 2010; Jenkins, 2006), not only with regard to the strenuous demands posed by a

participatory society but even when it comes to merely 'listening in' online more passively just to keep up with societal change (Schönbach & De Waal, 2010).

> [Q3] What is their attitude with regard to social change and improvement through online participation?

The participants mainly use social media to interact with friends or family. None of the participants indicate that 'being online' is seen as beneficial, for example, with regard to accessing social resources available to them. This might explain the fact that low-educated youth predominantly report medium-related motives as opposed to content-related motives for Internet use (Van Deursen & Van Dijk, 2012).

This research shows that there is often an ambivalent or even conflicting attitude that stems from internal personal doubts and insecurities or external contextual fears and restraints. These attitudinal factors can be seen as thresholds, holding these youth back from exploring or creating opportunities and influencing or overcoming structural constraints that accompany the use of social media and explicit participation in networks.

This means that alternative, compensatory measures should aid and support ESL in combatting disparities and gaining leverage in the world of 'haves and have nots' (De Haan, 2004; Robinson, 2009) and that ESL policies should broaden their perspective on pathways towards social participation.

> [Q4] What is their attitude with regard to economic change and improvement through online participation?

Within the often externally imposed frame of reference provided by the educational or occupational settings they participate in or are expected to participate in, low-educated youth rarely encounter social media use in a way that benefits their educational or occupational goals in general or in a more personal way. This might explain their relative 'ignorance' and obvious reluctance with regard to social media use that aims at influencing conditions for participation and enhancing their opportunity structure, for example, by participating actively in the negotiation of meaning and practice in a Wengerian way in order to sustain their employability. Even after bringing these opportunities into the discussion during the focus groups, they quickly jump to more traditional means and benefits of self-presentation and participation in economic contexts. It is even considered unprofessional by some of the participants to bring social media into the equation.

It is quite remarkable that these special educational tracks, although initiated to help youth 'get back on track', do not involve socializing in both the off-line and online social tracks within society. They mainly focus on the self-sufficiency of these youth. This self-sufficiency as a desired outcome is framed by the perspective of getting these youth back into the regular learning tracks or pathways of formal education, or paving the way towards getting into a regular job. This can be partly ascribed to the policies

that underpin these initiatives. This perspective is quite common in modern-day youth policies that are framed by the 'welfare to work' principle within economies that answer to OECD guidelines (Eichhorst & Konle-Seidl, 2008; Pohl et al., 2007). These economic policies and this widespread principle, stressing the self-responsibility of every citizen, are the driving forces behind most facilities and tracks which envision participation and activation. It is no wonder that the outcomes of these policies do not contribute to the concept of a civic society in which the citizens are expected to take matters collectively into their own hands.

Our findings are limited in their scope and expressiveness, as we sampled from only four dual tracks to obtain the information for a final 12 cases that were studied further. Nevertheless, the findings strongly resonate with previous findings from research on employment activation policies and pathways to participation in a broader and comparative perspective (Wildemeersch et al., 2000). They also correspond with research on leveraging the digital opportunity structure (Huysmans & De Haan, 2010; Mariën & Van Audenhove, 2010), shifting the focus from removing barriers towards adding value (Verdegem & Verhoest, 2009) and taking the life world of youth as a starting point for both further research (Boonaert & Vettenburg, 2011; Mariën & Van Audenhove, 2010) and future interventions (Livingstone & Helsper, 2007; Verdegem & Verhoest, 2009). Furthermore, research indicates that social media should stand at the heart of the design of interventions to get low-educated youth involved. Social media may function as a lever (Verdegem, 2011), an alternative route to getting young people engaged in online activities (De Haan & Adrichem, 2010; Livingstone & Helsper, 2007) and an alternative to give voice to a diversity of young people (Boonaert & Vettenburg, 2011).

Finally, our findings underline the importance of taking into account attitudinal factors concerning Internet use and deliberate non-use (Mariën & Van Audenhove, 2010) along with personal backgrounds, interests, capabilities and socially defined preconditions (Robinson, 2009) when designing policies and devising practices to stop the digital divide from widening (De Haan & Adrichem, 2010; Verdegem, 2011). Most research up to this point indicates that framing the problem in terms of dichotomies such as: haves vs. have nots, wants vs. want nots, engaged vs. disengaged, literate vs. illiterate, and so on, oversimplifies the underlying complexity of the problem, thereby limiting the outcomes of research.

Further research should be conducted on the relation and importance of the concept of 'selective self-presentation' with regard to beneficial participatory outcomes, taking into account identity formation and the development of self-confidence and social skills, and the skills framework that was developed by Van Deursen and Van Dijk (2011), especially emphasizing content-related communication skills and strategic skills.

Following Schäfer's (2008) critique on the naïve enthusiasm surrounding digital participation, there should be further investigation as to whether and how online

networks and communities and even educational institutions increase the digital gap or divide, as recent research suggests. As communication techniques facilitate the switch from one type or 'regime' of engagement to another, ranging from disclosing the personal in public to commonizing customized uses in user groups (Thévenot, 2001), a critical understanding should be developed of the constitutive role of modern technology as an aspect of the social concept of 'practice'. It is furthermore important to investigate how online created values, such as identity, knowledge or skills, may contribute to solidarity and connectedness in the offline world in order to gain in relevance and importance in terms of tangible social capital (Dreyfus, 2004).

Using one's interpersonal skills by means of effective self-presentation and explicit participation probably contributes to more than just sustained employability. There is further food for thought when we take a look at the way technology-mediated types of working are negotiated and construed in the process of socially innovating business, and how these new network-like types of working contribute to the viability of organisations. So it would also be advantageous to study how selective self-presentation in professional contexts and networks in terms of communicative and interpersonal skills contributes to the strategic and beneficial use of online networks with regard to aspects of interactive employability and organizational viability. Research on online self-presentation should also be related to the findings of Hughes, Rowe, Batey and Lee (2012), who studied personality predictors of social media usage.

Chapter 4

Teachers' beliefs about using technology to enhance the learning process of at-risk-students

In this case study we explore the beliefs of teachers who work with at-risk students (AKA teachers) and who are consider using social media in their learning environment. We interviewed and observed a group of teachers who, as a project team, explored social-media use in order to develop their practical knowledge and make informed decisions. We used a two-phased exploratory sequential design, combining qualitative and quantitative instruments to explore how and why AKA teachers consider and approach social media use. The beliefs of AKA teachers were challenged and changed by the encounter with lived, practical examples of social media use in education. This is consistent with findings from other research. But quantitative data indicate that AKA teacher beliefs are also strongly influenced by the opinions of team managers and the practices of colleagues. What is most remarkable about these external influences is that these opinions have not been explicitly expressed and these practices have not been explicitly witnessed.

4.1   INTRODUCTION

Teachers are confronted with and challenged by the promise of new means or tools for communication, interaction and meaning-making in the context of learning. These new tools also raise questions about their usefulness and relevance for learning strategies and programs that specifically address at-risk students. In this report, we focus on teachers who work with at-risk students in educational programs at level 1 in Dutch Secondary Vocational Education and Training (VET), the so-called AKA programs. AKA stands for Assistant Training programs that qualify students for the labor market. These AKA programs (ISCED level 2 in Dutch/international statistical information) work without admission requirements and mainly train students for simple practical, labor-oriented work. The question whether technology-mediated learning positively contributes to motivating and supporting at-risk students and support the differentiation of teaching methods to meet these students' needs, however, has not yet been adequately answered. The answer partly depends on teachers' beliefs with regard to learning technology and teachers' preferred strategies. In this study, we explore beliefs related to the way teachers who educate at-risk students, adopt, appropriate and embed learning technology and more specifically how they use social media in the learning environment.

Research indicates that practice-driven experimentation by teachers may prove a promising approach in changing teachers' beliefs and hence their practices (Ertmer, Ottenbreit-Leftwich, & Tondeur, 2014; OECD, 2014). Practice-driven experimentation 'in the field' may therefore provide a critical context for exploring teachers' beliefs and changes in these beliefs. As this practice-driven experimentation and belief changes entail an encounter with new ideas, practices and behaviors by others, we are very interested in how these external factors influence the beliefs of teachers.

Teachers' beliefs and knowledge are part of the personal system teachers use when performing their jobs and refers to more or less formal insights and understandings (Kelchtermans, 2009) that are mainly developed and maintained in everyday practice and encounters (De Laat, 2012; Pajares, 1992). We used Fishbein and Ajzen's Theory of Planned Behavior (TBP) to explore how teachers' beliefs and intentions are shaped by their own practical knowledge, views and experiences as well as external factors (i.e. the practical knowledge, views and experiences of others). Fishbein and Ajzen's theory provides belief constructs that predict planned or goal-directed behavior and behavioral change with high accuracy (Ajzen, 1991). The theory distinguishes between three types of beliefs: behavioral, normative, and control, and between the related constructs of attitude, subjective norm, and perceived behavioral control. '*Attitude'* points to a person's favorable and unfavorable evaluation or appraisal of attitudes; '*subjective norm*' points to external, organizational or social pressure, and '*perceived behavioral control*' points to a person's self-efficacy and perceived ability to cope with problems.

Following Kaplan and Haenlein (2010), we define social media as:

> ... a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content (2010: 61).

In using this definition, we also refer to social networks or platforms when using the term social media in this report. By 'social networks' we mean any configuration of human connection within online social spaces that happens as soon as people interact with each other, by communicating, sharing things, working together and learning (De Laat, 2012). We consider a change in teachers' personal belief systems as a form of teacher learning or development and used the Network Barometer to gain insight into the social process of the learning enacted by a group of teachers who set out to explore social media use.

4.1.1   Teachers and at-risk students in the Netherlands

VET teachers who work in AKA programs have reported that the ability to design a powerful learning environment is their most important competency. This competency also encompasses the ability to design and arrange activating learning activities and to differentiate between teaching methods in response to students' individual needs. Fostering this type of activating activity and the necessary supportive learning environment to foster it is seen as a permanent struggle (Van Eck & Glaudé, 2012) which has been reported in several recent studies (Groenenberg & Hermanussen, 2012; Lesterhuis, 2010). In our study, we are concerned with the questions of what AKA teachers believe about the use of technology in relation to their affective, need-based supportive teaching strategy. This includes what they belief about embedding technology in an activating learning environment and how they think technology may support them differentiate their teaching methods on the basis of individual students' needs.

Students in AKA programs, aged 16-22, have different needs and learning profiles and therefore need different pedagogical treatments and learning approaches. They are often not in the position to attain a minimum 'basic qualification' at VET level 2 (ISCD level 3c), which means these students therefore often end up as ESL. A 'basic qualification' in the Netherlands is considered a minimal requirement for successful school-to-work transition and entering the labor market. AKA students' personality traits and lack of social skills often hamper school-to-work transitions after completion of a program (Vink, Van Schilt-Mol, & Sontag, 2008) and these shortcomings are also the main school-related cause why VET students do not complete their level and drop out before graduating (ROA, 2013). The differing needs and profiles of the AKA students, that is, underlying cognitive abilities, personal circumstances, interests and needs (Lesterhuis, 2010), as well as their social shortcomings (Vink, et al., 2008) are the

main influences on their teachers' affective teaching strategy' (Groenenberg & Hermanussen, 2012).

4.1.2   Learning environments for students at-risk

In order to prevent Early School Leaving (ESL), education will have to change. It will have to do so by opening up to society and embedding learning into the social life of the community. Education will also have to personalize learning to better meet the needs and interests of students in order to prevent ESL in the future (Dale, 2010). In order to counter the effects of ESL, students have to be prepared to benefit from more curative safeguards, like post-initial learning. Post-initial learning is learning beyond the age of compulsory, initial education that is usually funded by the government. Due to the rapid changes in skill demands and diversity in life courses, people choose to engage in education whenever and however they want and the line between initial and post-initial education has been blurred (Renkema, 2006; Williams, 2000). Future post-initial learning opportunities for ESL outside of the education system are believed to be largely dependent on and supported by technological innovation, that is the provision on online courses and online educational resources (Redecker, Leis, Leendertse, Punie, Gijsbers, Kirschner, … & Hoogveld, 2010: 4). So in effect, education will have to change and personalize learning pathways in order to better prepare youth who are at risk (Dale, 2010). This preparation would require working on students' attitudes with regard to lifelong personal development, and creating the awareness and developing the skills with regard to technology use that supports and augments this lifelong development. Part of this much-needed educational, technology related reform boils down to changing teachers' traditional teaching strategies and adapting teachers' roles in the process (Redecker et al., 2010). Important, co-constitutive elements in transforming both initial and post-initial education therefore appear to be teachers' beliefs on the one hand and technological affordances relating to social media on the other.

With regard to creating powerful learning environments, learning technology has rapidly gained attention and momentum. Educational technology is often presented as an enabler, bringing in extras, like features or affordances that were once unthinkable or unmanageable in the traditional, face-to-face teacher-student level interaction. Educational technology provides features or affordances that enable teaching strategies and learning activities to be more flexible, adaptive, interactive, constructivist, social and personalized (Koper, 2000; Van Merriënboer & Kanselaar, 2006; Suthers, 2006). The power of learning environments can be augmented or extended through these technology-mediated features or affordances. Since the advent of the Internet and social media, these web-based types of modern technology have also gained the interest of education (Greenhow, Robelia, & Hughes, 2009).

However, embedding and using technology and reaping its promised benefits is not as simple and straightforward as often claimed (Henderson, Selwyn, & Aston, 2015).

Regularly problems that arise are ascribed to the way teachers' traditional beliefs govern the design process, i.e. the way teachers' make collective design decisions ultimately determines the quality of the learning environment and subsequently, the effects of the teaching strategy as a whole on the learning process and its outcomes (Ertmer, Ottenbreit-Leftwich, & Tondeur, 2014; Voogt, Van Braak, Heitink, Verplanken, Fisser, & Walraven, 2013).

Dutch teachers indicate they need development opportunities with regard to skills concerning teaching with ICTs, differentiating, workplace ICTs and teaching students with special needs (Van der Boom & Stuivenberg, 2014). Teachers in the Netherlands are also slightly less likely to express a positive view on the value of technology for teaching and learning as compared with teachers in other OECD countries (OECD, 2015). The TALIS country report showed that Dutch teachers still prefer "presenting information through direct class instruction" and "reinforcing learning of skills through repetition of examples" (Van der Boom & Stuivenberg, 2014: 15). The International Computer and Information Literacy Study (ICILS 2014) reports that Dutch teachers are: the least positive about the use of technology in the classroom, mainly use learning technologies to support traditional classical instruction, are less involved in professional development and are more interested in subject-specific digital tools (Fraillon et al., 2014). Although Dutch teachers express strong views about their professional needs, the findings above seem to indicate that they are unclear and in doubt about their motivations and beliefs with regard to technology use. Just as professional reasoning depends on the presence of practical knowledge (Voogt et al., 2013), it seems that professional needs depend on practical views and experiences, indicating that shifts in teaching strategies are more likely to occur when teachers are exposed to new ideas, the practice of new behaviors (OECD, 2014) and have actually witnessed the impact of these new practices and behaviors on their students (Ertmer & Ottenbreit-Leftwich, 2010).

Furthermore, AKA teachers seem to be of two minds about their teaching strategy: they exhibit a traditional, authoritarian and directive teaching style on the one hand but on the other hand predominantly use constructivist forms of discovery learning, requiring students to 'find' the learning content themselves while the teacher is supposed to coach students' activities (Groenenberg & Hermanussen, 2012).

4.1.3   Research questions

The aim of this study is to explore how and why AKA teachers decide to explore and use certain technologies, in particular social media, to promote, support and foster technology-mediated learning by at-risk students.

Creating this kind of learning environment is not a straightforward mission that can be achieved according to a linear action plan. A design approach requires a certain amount of pedagogical consistency, for example with regard to the epistemology that

guides collective technological decisions (Suthers, 2006). This need for pedagogical consistency may, however, be at odds with the idiosyncrasies teachers often display with regard to technology use (Ertmer, 2005). Idiosyncrasy is not that unusual when we consider that a *subjective* educational theory is part of every teacher's personal *interpretative* framework (Kelchtermans, 2009). This means that no teacher thinks the same, is the same or acts the same. It is also possible that the pedagogical consistency is at odds with and therefore hampered by the lack of agreement teachers experience about technology use at the organizational level (Fraillon et al., 2014).

In many studies, teachers are explicitly referenced as part of the problem, due to their beliefs about technology (Ertmer et al., 2014), their design capabilities (Chai, Koh, & Tsai 2013) and their capabilities with regard to professional reasoning (Voogt, Van Braak, Heitink, Verplanken, De Jaeger, & Fisser, 2015).

In order to further explore these problems and challenges, we formulated the following, more specific, research questions:

1   How often do AKA teachers use social media and what are the generational differences between the participants?

2   How do the AKA teachers perceive and value their students' needs?

3   Why do teachers believe the use and appropriation of social media will strengthen their teaching practice and empower their learning environment?

4   How do teachers view the role of social media as a complementary element of powerful learning environments?

5   How do beliefs and perceptions of students' technology-related needs inform and influence teachers collective design decisions with regard to using social media as part of a powerful learning environment?

To get more insight into the similarities and differences in the teachers' beliefs, it is useful to explore whether certain dimensions can be found within their professional needs and beliefs. Teacher beliefs are best defined as the whole of teachers' ideas and convictions with regard to their own teaching practice and education in general (Kelchtermans, 2009).

First we investigate how often AKA teachers use social media or technologies (personally or professionally) and what types of social media they use (1st research sub question). Second, we look at how AKA teachers explore technology and devise learning activities that fit with their students' needs and how this process relates to their affective strategy (Lesterhuis, 2010). To get more insight into these selection processes, we explore how AKA teachers perceive and value the technology-based needs of their students, who allegedly grew up with digital media and are therefore 'digital natives' (2nd research sub question). Third, we see that in general AKA teachers prefer an affective learning strategy for their students. Idiosyncratic beliefs on technology use

may increase as a result of a teacher's affective strategy, because such a strategy governs teachers' choices and decisions. It is therefore interesting to explore why teachers seek additional technological functions and social affordances that align with their personal, affective strategy, even if their choices ultimately do not align with school policy. Answering this question may provide more insight into teachers' technology related decision making that facilitates the non-task or non-curriculum related dimension of personal development and socializing (3rd research sub question). Fourth, descriptions of the teachers' visions concerning their expectations are summarized in three categories. These categories could provide insights and directions for further pedagogical and professional development (these three categories are summarized in the 4th research sub question). The fifth and last step in our investigations is exploring how teachers' beliefs and perceptions of students' needs influence their collective design decisions for using social media as part of a powerful learning environment in their AKA program (5th research sub question). As stated before, technology use by teachers is highly idiosyncratic when governed by an affective teacher-student relationship and guided by the pedagogical need for personalization and differentiation. This idiosyncrasy may possibly cause frictions with regard to the process of collective decision making.

Therefore the main research question of this study is twofold: "What are AKA teachers' beliefs about using modern technology, i.e. social media, in relation to their affective teaching strategy, and how do they view the (affective) role of technology for embedding technology in students' learning processes?"

4.2   METHOD

4.2.1   Participants

All participants in this study (n=57) are employed at the College for Orientation and Development (COD) that is part of a larger, regional VET institution in the Netherlands. Fifty-four of the participants are AKA teachers with an indefinite contract, two are team managers and one is an educational advisor. Within this total group of participants, a subgroup of 11 individuals, consisting of eight teachers, two team managers and one educational advisor formed a designated project team (n=11). The project team was assigned with the mission of exploring possible uses of modern technology, i.e. social media, in the teaching methods of the AKA program. The group of 57 only participated in the online survey. The subgroup of 11 project members participated in the individual interviews and the focus group sessions and these participants also filled in the paper-based questionnaire after the project meetings.

Table 4.1 *Participants' characteristics regarding age, generation and gender*

	Age		Generation			Male		Female		Total	
	M	SD	BB	GenX	GenY	n	%	n	%	n	%
			- 1955	1956 - '70	1971 -						
Team1	47.8	10.66	6	5	8	5	26	14	74	19	33
Team2	48.9	10.92	11	7	8	9	35	17	65	26	46
Team3	53.8	7.50	4	7	1	4	33	8	67	12	21
Project team	44.2	10.33	1	5	5	7	64	4	36	11	19
			9%	45%	45%						
Full-time	45.9	11.06	3	8	3	10	56	8	44	18	32
Part-time	51.3	9.99	18	11	18	8	21	31	79	39	68
Total	50.7	10.11	21	19	17	18	32	39	68	57	
			37%	33%	30%						

It is interesting to note that the distribution with regard to gender and generation (age) within the different teams is almost the opposite of the distribution with regard to gender and generation (age) within the project team. With regard to gender and age, the project team is not a regular reflection of the schools' population. We have no explanation for these findings because we were not informed about the selection process of the project members.

4.2.2   Materials

4.2.2.1   Interviews.

Individual interviews were conducted using semi-structured guidelines. These guidelines consist of sets of categorized questions and sub questions. The questions covered reasons and factors that may explain why these students have not achieved any school degree and have a history of dropping out. The questions also covered reasons and factors that explore the teacher's belief with regard to a reform of the curriculum and teaching strategy in relation to social media. The interviews were meant to create a picture of the participants' personal 'start'-situation. The outcomes of the interviews were summarized using the following outline:

- What is important to keep in mind?

- Vision and ambitions regarding the technology-mediated learning.

- How do the AKA students face the digital world and cope?

- What is the teacher's perception of AKA students?

- What is demanded from AKA-education?

The summary of the interviews was shared with the project team in the final (5th) project meeting. During this meeting, the results were discussed in light of the project and the expected and realized outcomes.

4.2.2.2 Focus groups.

Focus groups were initiated by the project members. A simple, semi-structured guideline was devised that merely functioned as an aid for the teachers to start the conversation with their students and keep it going and on topic Every one of the three focus group was voluntarily chaired by one of the project members who used the semi-structured guidelines, and consisted of three to four students and three to four project members. These focus groups were not a preconceived research activity but were instigated by the project team. As researchers observing the project team, we provided the semi-structured interview guidelines for the focus group sessions, These guidelines consist of a set of categorized questions and sub-questions on social media use. The questions were devised by paraphrasing the items on the scales sociability and social presence, that were part of the survey.

4.2.2.3 Surveys.

We used two quantitative surveys: an online survey (OlS) and a paper- based questionnaire (PbQ).

The online survey (OlS) was administered to all AKA staff (n=57). Of these 57, a total of 42 participants completed the survey. The questions of the online survey (OlS) were constructed using Fishbein and Ajzen's Theory of Planned Behavior (TPB). The teachers' '*subjective norm*' (α = .91), to use social media for communication was measured with four questions (nr. 6-9) containing a total of 22 items. The teachers' '*attitude*' (α = .98) to use social media for communication was measured with a single question (nr. 10) containing a total of 10 items. The teachers' '*Perceived behavioral control*' (α = .96) to use social media for communication was measured with 4 questions (nr. 11-14) containing a total of 19 items. The teachers' '*intention*' (α = .92) to use social media for communication with students was measured with 2 questions (nr. 15-16) containing a total of 12 items. The questions and items were constructed using 7-point bipolar adjective scales with the following endpoints: absolutely improbable - totally probable; absolutely not - a lot; absolutely untrue - totally true; absolutely disagree - totally agree. The construct 'subjective norm' consists of four aspects that cover the different belief aspects, as proposed by Ajzen (2002).

Table 4.2 *Aspects of subjective norm.*

Question	Aspect	Items
6	(Injunctive) Normative beliefs	7
7	Motivation to comply	7
8	Descriptive norm	4
9	Perceived norm	4

The descriptive part of the survey concerned simple questions about the frequency and type of social media use.

The paper-based questionnaire was administered to the members of the project team (n=11). It was constructed on the basis of Wenger's theory of community of practice (1998), modeled after Smith and Coenders' community barometer (2002) and complemented with elements of Wenger, Trayner and De Laat's work on value creation in networks (2011). The five subcategories are comprised of the subject or topic of the network (questions 1, 6, 10; α = .73), mutual respect and confidence (questions 2, 5, 12; α = .72), the connection with daily practice (questions 3, 7, 9; α = .98), aspects of 'networked learning' (questions 4, 8, 11; α = .82) and the overall evaluation of the network (13, 14, 15; α = .62).

Participants were for example asked whether the right kinds of topics are discussed in the network (question 1), whether he or she has a sufficient degree of influence on the way the network functions (question 12), whether he or she has found sufficient use for the outcomes of the network (question 3), whether the network members know enough about who has what expertise (question 8), and how important the network is for one's personal development (question 14).

The questionnaire consists of 12 questions with a six-point Likert scale, ranging from 'totally disagree' to 'totally agree' and 3 questions from the last subcategory with a six-point Likert scale, ranging from 'very unimportant' to 'very important'. All questions had a (seventh) answer option: 'not applicable (yet)'.

4.2.3   Design and procedure

We used a case-study approach (Yin, 2003) and combined this with a two-phased exploratory sequential design, which involved a phase of qualitative and quantitative data collection (Creswell & Plano Clark, 2007). An exploratory study was performed to obtain insights into AKA teachers' beliefs on technology-mediated learning processes and the use of social media in their learning environment.

The qualitative component describes the AKA context, mechanisms and outcomes explaining how and why AKA teachers did or did not create technology-related activities and in which educational setting the activities took place. The qualitative data collection consisted of individual interviews and focus groups. The interviews were done with the 11 individuals who were assigned as members of the project team. We talked in depth with these individuals about their needs, their students' needs and their expectations of the project. We first probed the individual beliefs, needs, and expectations of the members of a designated project team (n=11) in detail by interviewing them individually. The project teams was formed after a project plan had been written and been approved by LOOK, a research centre of the Open University, now part of the Welten Institute. This project plan focussed on development and innovation of education with ICT and teacher professionalization. It also covered the cooperation with

employers in order to use social media in the communication during traineeships of the students.

We observed the project members' collective process of learning, meaning making and discussing social-media practices during a consecutive series of five project meetings. We administered a paper-based questionnaire directly after each individual project meeting.

We also used focus groups to organize a dialogue between the project members and both adolescent and adult AKA students, on the subject of social media use inside the classroom and as part of school related interaction outside of the class room.

The quantitative data collection consisted of an online survey (OlS) and a paper-based questionnaire. The online survey focused on teachers' social media use and the beliefs that may have influenced their decision making on integrating social media into their affective teaching strategy.

The paper-based questionnaire or Network Barometer (NB) covers five subcategories related to 'networked learning'. The Network Barometer helps to reflect on the added value of networks for informal learning that can be made up of the implementation of innovations, teacher development, and improved teaching practices (De Laat, 2012). We considered whether this questionnaire and its subcategories were appropriate to explore how the project members collectively develop shared practical knowledge and practical views and experiences. As the questionnaire covers 'networked' learning, i.e. the social configurations of connectivity between the learning processes of the individual project members, we assumed the questionnaire would also provide insight into the viability of the project members' learning, i.e. the collectively constructed practical knowledge and practical views and experiences that would espouse their collective decision making. In our study, the paper-based questionnaire was intended to help us answer research questions 5.

Networked learning is generally defined as a process of developing and maintaining connections with people and information, and communicating in such a way as to support one another's learning. It focuses on the diversity of social relationships of network members, the strategies these members use to maintain the relationships and the values that these relationships create for learning. The questionnaire was administered immediately after each individual project meeting of the project team.

The instruments we used to collect our data cover the following research questions are shown in Table 4.3.

Table 4.3 *Research questions and corresponding materials*

Research sub questions and corresponding materials	Individual interview	Focus group session	Online survey (OlS)	Paper- based questionnaire (PbQ)
	(n=11)	(n=8)	(n=57)	(n=11)
1 How do AKA teachers use modern technology (social media)?	X		X	
2 How do the AKA teachers perceive and value their students' needs?	X	X		
3 Why do teachers consider the use and appropriation of social media in their teaching practice and learning environment?	X		X	
4 How do teachers view the role of social media as a complementary element of powerful learning environments?	X	X		
5 How do beliefs and perceptions of students' needs inform and influence teachers collective design decisions with regard to using social media as part of a powerful learning environment?			X	X

4.2.4   Data analysis

The notes taken during each individual interview were collected in two matrices that were added to the summary as appendices. The first matrix covers descriptive data concerning the interviewees (name, background and experience, type of AKA student -adolescent or adult-, etc.). The second matrix covers answers, personal beliefs and opinions of the interviewees (how does the teacher use ICT?, how did he/she get involved in the project?, how does the student population cope with the digital world?, etc.). The focus group meetings were recorded and the results were summarized and reported on paper. The data from the online survey and the paper-based questionnaire were analyzed with SPSS.

4.3   RESULTS

4.3.1   First research question

The first research question was 'How often do AKA teachers use social media and what are the generational differences between the participants?' To answer our first research question, we used data from the interviews and online survey.

The interview data show that the project members express different habits and practices with regard to social media use. These range from modest private use to intensive professional use. One project member said that he knew what social media was, but he mentioned little use himself. He did not have a Facebook account and used

WhatsApp for private messaging. Another project member used WhatsApp intensively with his students on weekdays and even in the weekend.

Table 4.4 *Frequencies of social media use by AKA teachers*

		Never	At least several times per					Total
			year	half year	month	week	day	
Male	n	3	1	0	1	0	7	12
	%	25,0	8,3	0,0	8,3	0,0	58,3	100
Female	n	7	4	2	1	2	14	30
	%	23	13	7	3	7	47	100
total	n	10	5	2	2	2	21	42
	%	24	12	5	5	5	50	100
team 1	n	1	2	2	1	1	7	14
	%	7	14	14	7	7	50	100
team 2	n	5	2	0	1	1	9	18
	%	28	11	0	6	6	50	100
team 3	n	4	1	0	0	0	5	10
	%	40	10	0	0	0	50	100
Total	n	10	5	2	2	2	21	42
	%	24	12	5	5	5	50	100
Project team	n	1	0	0	1	0	8	10
	%	10	0	0	10	0	80	100

Slightly more than half of all teachers in teams 1 (57%), 2 (56%) and 3 (50%) use social media at least a few times per week or even per day. However, 80% members of the project team use social media on a regular daily basis.

Of the different media and apps we asked about in the survey, the following were most recognized and used by the teachers: Twitter, WhatsApp, Facebook, YouTube, Skype and LinkedIn. Photo sites like Flickr, Picasa or Instagram are hardly known or used. Of the teachers, most use YouTube (68%), followed by Facebook and WhatsApp (57%). Male teachers are more inclined to use Twitter, WhatsApp, YouTube , and LinkedIn. Female teachers are more inclined to use Facebook and Skype. The differences are small with the exception of WhatsApp and YouTube. Most male teachers use YouTube (83%) and WhatsApp (75%), followed by LinkedIn and Twitter (33%). Most female teachers use YouTube (60%) and Facebook (60%), followed by WhatsApp (50%).

Members of Team 1 ('*Team AKA adolescents*'), serving adolescent students, prefer YouTube (86%) and WhatsApp (64%). Members of Team 2 ('*Team AKA adults*'), serving adult students, prefer Facebook (72%) and YouTube (56%). Members of Team 3 ('*Team Projects and Pathways*'), providing special services to youth at risk prefer Facebook (70%), followed by YouTube (60%) and WhatsApp (60%).

Table 4.5 *Participants' social media use; online survey*

Which of the following social media do you use?													
		Twitter		WhatsApp		Facebook		YouTube		Skype		LinkedIn	
	n	n	%	n	%	n	%	n	%	n	%	n	%
M	12	4	33	9	75	6	50	10	83	3	25	4	33
F	30	6	20	15	50	18	60	18	60	9	30	8	27
Total	42	10	24	24	57	24	57	28	67	12	29	12	29
full-time	13	3	23	8	62	9	69	9	69	2	15	6	46
part-time	29	7	24	16	55	15	52	19	66	10	34	6	21
team 1	14	1	7	9	64	4	29	12	86	3	21	2	14
team 2	18	6	33	9	50	13	72	10	56	5	28	7	39
team 3	10	3	30	6	60	7	70	6	60	4	40	3	30

The most used apps or media are YouTube, WhatsApp and Facebook. Of these three, only WhatsApp is genuinely suited for synchronous two-way communication.

Both male and female respondents prefer the use of YouTube, a one-way, a-synchronous tool that is perfectly suitable for substitution purposes, like distributing recorded lessons or additional video's providing extensive explanation. Apart from YouTube, female respondents seem more sensitive to two-way, synchronous social media delivering visual cues (Skype) whereas the male respondents are more sensitive to two-way, a-synchronous social media delivering informational cues (WhatsApp and Twitter).

Although teams 1 and 3 both work with adolescents, it is interesting to see that team 1 does not prefer to use Facebook (29%) as much as team 3 (70%) or as much as the total group of respondents (57%). This may be explained by the fact that the members from team 1 see their students on a daily basis for a longer period of time and don't feel the need to have after-hours contact with them. Likewise the students served by team 1 may also feel the same way. This interpretation is corroborated by statements made in the interviews and during the focus group sessions: teachers don't feel the need to work after hours and full-time students have no need for after-hours contact with their teachers. The same does not hold true for all of the project members. One of the project members, who works in team 1 with full-time students, indicated during his interview that he uses WhatsApp with his students on all days of the week as well as in the weekend.

WhatsApp is mostly used for texting, e.g. members of team 1 see WhatsApp as an appropriate tool to ask late or absent students about their whereabouts and urge them to come to class. This kind of media use is displayed by a growing number of teachers, as is shown in the Dutch ICT monitor 'Vier in balans' (2015).

4.3.2   Second research question

The second research question was 'How do the AKA teachers perceive and value their students' needs?' To answer our second research question we used data from the interviews and focus groups.

Every teacher who teaches adolescent AKA students has to deal with a generation of 'digital natives' that grew up with digital media. The interviews reveal that Facebook and Twitter, and more recently WhatsApp, also belong to the (digital) life world of these adolescent AKA students. None of the teachers indicate that they would ban smart devices from the classroom.

An important outcome of the interviews is the common and more or less 'shared' view of teachers concerning the 'typical' AKA-student. AKA teachers describe their students as adolescents and adults having low levels of education and as having a great distance to the labor market. These students who have not achieved school diplomas, have a history of school leaving and display severe motivational problems. Elaborations on these descriptions were:

- limited cognitive abilities;
- learning and behavioral disorders;
- social problems that hamper their educational career;
- lack of necessary basic knowledge and skills;
- thoughtless/reckless behavior (lack of reflection);
- have trouble distinguishing cause and effect;
- lacking labor market competencies;
- vulnerability when it comes to repeated setbacks (lack of persistence).

The interviewed project members indicated that knowing how to find the right, genuine tone in a teacher's contact with students is an important stepping-stone for creating a cooperative attitude and openness among students. The interviewed project members believe it's more important to encourage young people to recognize their options and opportunities themselves, weigh the pros and cons and to bear the responsibility for choices made.

Knowing this, some of the interviewed project members (n=3) marginalized the expressed importance of certain related skills, because other curricular subjects were regarded as more important. A series of lessons on digital skills could therefore only lay claim to a small part of the curriculum. As a result, some of the AKA teachers saw little purpose in focussing their attention on the digital (learning) skills of their adult AKA students, either to serve the learning process or prepare their students for the demands outside of school involving lifelong learning and keeping up with social and economic progress.

Overall, the project members (n=9) referred to adolescent AKA students during the interview. Only two teachers referred explicitly to the lack of access and skills among

adult AKA students. Yet the fact that adult AKA students may face even greater societal and labor-related disadvantages than the adolescents, did not resurface. Even during the project meetings, where teachers from the team serving the adult students were present (or during the focus groups, where adult students could have had a say) this emphasis on adolescent students did not change in any noticeable way. We can conclude that the project members showed a one-sided interest in their adolescent students' needs that seemed informed mainly by their students' habits.

Although adolescent AKA students easily handle devices and use apps on a daily basis as some project members remarked in the interviews, those same project members expressed that their students' media-related behavior and actions don't testify of maturity and responsibility. Digital interaction requires more than just skillful, operational social media use. The students' lack of information literacy is seen as a bigger issue as four of the interviewed project members stressed that their students are not able to find, evaluate and use information in an appropriate way.

The focus group session revealed that most AKA students are moderate users of social media. They mostly use certain apps, like WhatsApp to communicate with friends and relatives. The teachers asked students about their social media use and modestly introduced the idea of pedagogical use. When this kind of use was brought up, students in general reacted with reservation as if not knowing what to expect. Only one student responded enthusiastically when certain pedagogical ideas where brought up that might provide benefit. An example would be texting homework-related questions before class via WhatsApp so a teacher could prepare differently and more student questions could be answered during class. The general impression of the focus groups was that the adolescent students showed no inappropriate behavior. It was however noticeable that two students reacted in a non-emphatic way when cyber bullying was brought up as a topic. Their response was that when a peer is cyber bullied it is his or her problem and there is no reason to intervene. Adult AKA students brought up elements of excessive and addictive social media use.

What was overlooked by the project members involved in the two focus-group sessions (n=8), was the fact that their adult AKA students are often also parents in 'disadvantaged families' who are faced with difficult parental questions. These adult AKA students lack the relevant knowledge, skills and exemplary experiences. According to what some of the project members (*n*=4) indicated during the interviews, this is the reason why even simple homework assignments involving a computer are not used with adult AKA students.

4.3.3   Third research question

The third research question was: 'Why do teachers believe the use and appropriation of social media will strengthen their teaching practice and empower their learning

environment?' To answer our this research question we used data from the interviews and online survey.

The interviews with the individual project members indicate that the teachers have three main reasons to use and appropriate social media in their teaching practice. These reasons are the expectancy that social media use will strengthen group dynamics, that social media could enhance pedagogy and that social media use should be part of the curriculum.

Results from the online survey show that teachers feel pressured by their team manager to use social media in their teaching practice (see Table 4.8). An interesting point about this perception is that one of the team managers indicated that the teachers would be free in a pedagogical sense to discuss and make choices on their own accord. The results from the online survey however point in the opposite direction, indicating that teachers felt strongly motivated to comply with the opinions of their team manager.

None of the interviewed project members referred to proximal external pressures with regard to technology-related choices, for example pressure due to school culture or school policies (Hrastinski, Keller, & Lind, 2009). AKA teachers feel free to bypass any recommended use of technology, like the institutionally provided Learning Management System (LMS).

The teachers seem to be backed by their team managers. As one of the team managers indicated during his interview: "The team ground work requires that teachers get their own responsibilities, so they can act in accordance with their own professional understanding. Teachers have to be free in a pedagogical sense."

The interviews resonate with the assumption that AKA teachers truly experience autonomy and pedagogical freedom, yet our survey data show some interesting differences.

Although the teachers seemed to work and discuss their work without any 'normative' pressure, our survey data indicated otherwise. A look at the correlations of the different constructs of Fischbein and Ajzens' TBP-model reveals a subjective norm (.677) and attitude-mediated (.743) power in our study (see Figure 4.1).

Table 4.6 *Significance of the belief-constructs, online survey*

		Subjective norm	Attitude	Perceived behavior control	Intention
Subjective norm (SN)	Pearson Correlation		,677*	,292	,531
	Sig. (2-tailed)			,088	,002
	N	42	34	35	32
Attitude (AT)	Pearson Correlation	,677*		,476	,743*
	Sig. (2-tailed)	,000		,005	,000
	N	34	34	33	31
Perceived behavior control (PBC)	Pearson Correlation	,292	,476		,530
	Sig. (2-tailed)	,088	,005		,002
	N	35	33	35	32
Intention (SN)	Pearson Correlation	,531	,743*	,530	
	Sig. (2-tailed)	,002	,000	,002	
	N	32	32	32	32

* Correlation is significant at the .01 level (2-tailed)

This subjective norm and attitude-mediated power was reason to take a look at the construct subjective norm as we were very interested in external factors influencing teachers' beliefs. Another reason to examine this power is that other research has previously found that subjective norms are of modest or no significance with regard to teachers' use of technology in education (Teo, 2010; Kreijns, Van Acker, Vermeulen, & Van Buuren,, 2013).
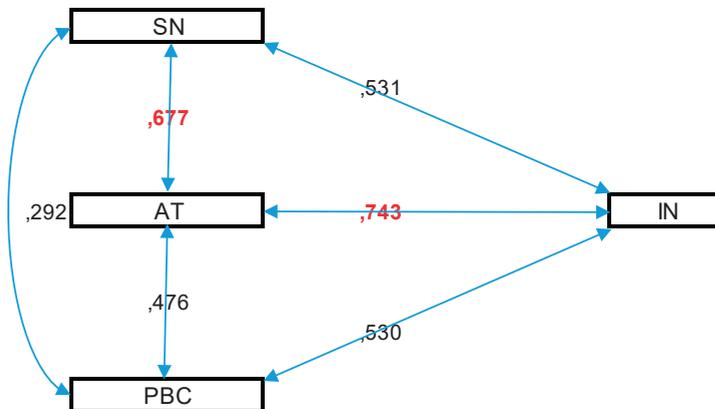
Figure 4.1 Teachers' subjective norm and attitude-mediated power

A detailed look at the aspect level of this belief construct (see Table 4.2) may reveal more detailed information and provide additional information to answer our third research question about external factors influencing a subjective norm.

A look at the aspects of the construct 'subjective norm' indicates that the AKA teachers especially feel the pressure to 'comply' with the opinions of their team managers. We compared aspects of the construct subjective norm, covering '(Injunctive) Normative beliefs' (question 6) and 'Motivation to comply' (question 7), with the aspect 'Perceived norm' (question 9). Injunctive norms refer to an individual's belief about the social approval associated with a particular behavior.

Table 4.7 *Correlation: normative beliefs * perceived norm; online survey*

Subjective norm, question 6 Aspects: normative beliefs * perceived norm Valid cases n=35		*Normative beliefs* (7-point scale)		*Perceived norm* (item 9.4)	
We would like to know if there are any people in your environment who think you should regularly use social media to communicate with your students:	Item	Mean	SD	τ_b	p
my students' parents	6.1	2,514	1,597	.294	.042
my students	6.2	4,286	2,136	.335	.016
my immediate colleagues	6.3	4,000	1,831	.343	.016
my team manager	6.4	4,543	1,804	.270	.054
my principal	6.6	4,257	1,738	.259	.075
my school board	6.7	3,914	1,837	.175	.229

* Correlation is significant at the 0.01 level (2-tailed)
Note. We left out item 6.5 in Table 4.7 as the results also included the answers of the project members who make up almost 33% of the population and answered this question as well.

Table 4.7 indicates that the team managers' opinion (*M* = 4,543, *SD* = 1,804) is best known by the teachers or at least perceived as the most prominent opinion. The opinion of the students (*M* = 4.286, *SD* = 2,136) comes in second place. This second place seems to indicate that teachers are well aware of the needs of their students with regard to social- media use. The opinion of the students' parents (*M* = 2,514, *SD* = 1,597) seems the least known or least prominent. We did not find any significant correlation between (injunctive) '*normative beliefs'* (items from question number 6) and the '*perceived norm*' (items from question number 9) (see Table 4.8).

   The question "When it comes to regular use of social media for communication purposes and others' opinions, do you comply with the opinion of: my team manager?" (item 7.4) showed a significant correlation of τ_b = .412 (*p* = .004) with the statement "I cannot wriggle out of using social media on a regular basis" (item 9.4). This relationship turned out to be more significant than the one related to the opinions of immediate colleagues (τ_b = .323, *p* = .020), the principal (τ_b = .278, *p* = .049) and the school board (τ_b = .203, *p* = .155).

Table 4.8 *Correlation: motivation to comply * perceived norm, online survey*

Subjective norm, question 7 Aspects: motivation to comply * perceived norm Valid cases n=32	Motivation to comply (7-point scale)			Perceived norm (item 9.4)	
When it comes to regular use of social media for communication purposes and others' opinions, do you comply to the opinion of:	Item	Mean	SD	τ_b	p
my students' parents	7.1	3.875	1.540	.152	.280
my students	7.2	4.875	1.497	.280	.148
my immediate colleagues	7.3	5.031	1.425	.323	.200
my team manager	7.4	5.094	1.279	.412**	.004
my principal	7.6	5.000	1.414	.278	.049
my school board	7.7	4.438	1.413	.203	.155

** Correlation is significant at the 0.01 level (2-tailed)

Note: We left out item 7.5 in Table 4.8 as the results also includes the answers of the project members who make up almost 33% of the population and answered this question as well.

In the interviews, none of the project members referred to directly-perceived external pressures from stakeholders like parents, guardians or future employers. The only external pressures that were mentioned during the interviews were the changing social and economic demands that the AKA students are faced with. But these pressures were expressed by the interviewed project members as if they only applied to students. Data from the online survey however indicate that the AKA teachers themselves are also facing changing demands that involve social media use. Although teachers perceive parents as the least 'demanding' group (M = 2.514), compared to students (M = 4.286), management (M = 4.543) or the principal (M = 4.257), they tend to be susceptible to the practices of other colleagues, both from other institutions (M = 4.059) as well as their own colleagues (M = 4.235).

The correlation with '*perceived norm*' (item 9.4) indicates that the habits of colleagues from VET colleges in general are seen as a really important stimulus ($\tau_{b} = .528$, $p = .000$) to not wriggle out of using social media, closely followed by the habits of colleagues from other teams/sections ($\tau_{b} = .422$, $p = .004$). Especially considering that the teachers in the project team actually did not consult with colleagues from other teams, sections or institutions to find out about their practices. This means that without actually having witnessed the practices of colleagues, there is still perceived pressure – a stimulus working at the level of a subjective norm.

Table 4.9 *Correlation: descriptive norm * perceived norm, online survey*

Subjective norm, question 8 Aspects: descriptive norm * perceived norm Valid cases n=33	Descriptive norm (7-point scale)			Perceived norm (item 9.4)	
Most colleagues: …	Item	Mean	SD	τ_b	p
… from other VET colleges use social media on a regular basis to communicate with their students.	8.1	4.059	1.071	.528*	.000
… at other locations use social media on a regular basis.	8.2	4.294	1.169	.414*	.005
… from other teams/sections use social media on a regular basis.	8.3	4.294	1.219	.422*	.004
… use social media on a regular basis.	8.4	4.235	1.539	.381*	.008

* Correlation is significant at the 0.01 level (2-tailed)

Although AKA teachers are facing new demands, most of them seem very confident with regard to social media use. When asked if they felt confident when unexpectedly faced with problems (question 14 item 2) the respondents scored a mean of 4.33 *(SD = 1.77)*.

The confidence the participants expressed in being able to handle unexpected events in an efficient manner, shows a high correlation with their expectation about using of social media regularly ($\tau_b = $ .495, *p* = .001) and their intention in using social media by trying to see what happens ($\tau_b = $ .530. *p* = .000). The teachers do not seem to feel any kind of pressure that might relate to a lack of confidence in using social media efficiently or appropriately. There is a significant correlation between their confidence at being in control, that is their self-efficacy, when confronted with possible, technological problems and their loose expectations with regard to technology use. Their intentions with regard to social media use are just not that high strung.

Table 4.10 *Correlation between expected and intended social media use.*

Perceived behavioral control * Intention Valid 30 Missing: 27		15.2 Regular use of social media is my: expectation.	16.2 I would describe my intention to use social media as: just try and see.
14.2 Are you able to face problems concerning the use of social media. Problems are …	Correlation Coefficient (τ_b)	.495*	.530*
	Sig. (2-tailed)	.001	.000
	N	30	29

* Correlation is significant at the 0.01 level (2-tailed).

Overall the teachers paid little attention to external stakeholders in the local community. There was no reference to co-creation or collaboration in the interviews. The 2nd and 4th project meetings, that involved third parties, scored the lowest (Figure 4.2) and 'external' normative referents, i.e. the students' parents, did not play a significant role in complying to the perceived norm (see Table 4.7 and Table 4.8).

Although stakeholder involvement is an important success factor for innovation projects, teachers *(n = 9)* do not view their adult AKA students as parents who could have been consulted as stakeholders. Remarks by adult AKA students about present-day youth, e.g. their own kids, in the focus group session were taken for granted but not acted upon. In this study we found no signs of any kind of external consultation with regard to stakeholders' views, for instance the views of possible future employers who may already employ AKA apprentices. Employers were mentioned in reference to extending the possibilities of online communication during apprenticeships in the project plan. These goals to explicitly involve employers as stakeholders, did not surface during the interviews or (re)appear on the agenda of the project meetings. This was partly due to the team managers who downplayed the project goals during the first meetings.

There were no direct visible, written or oral pressures or demands that could have set or influenced the agenda for the project team. The project plan was not shared and discussed with the project members at the kick of meeting. An agenda for every upcoming project meeting was set in between meetings by the team managers, by looking back and assessing the last meeting and its outcomes. The team managers participated in the project meetings without taking an explicit leader role. At the final project meeting, the members decided to organize study visits at other schools, for example at a school for senior general secondary education where iPads had been introduced into the classroom. In the final stage of this collective process, one of the team managers took a clearer and more decisive role. He summarized the progress, tried to coordinate group activity towards making appointments on action plans. This was probably the right timing as the teachers themselves had gained some understanding of social media practice in education as a result of the 4th project meeting and also engaged in a more pedagogical perspective on social media use.

The eagerness and keenness of the project members, which became visible in the activities and meetings in the school year following the year of the project, are mirrored in the Network Barometer scores on the 5th subcategory. This subcategory relates to: the 'overall evaluation' of the project, its relevancy for school development (13), every day practice (14) and personal development (15) – all of the scores on these questions were high. The project seemed like a first important step in a necessary series of steps in the journey of encountering atypical learning problems and fostering atypical forms of learning for positively acknowledging and welcoming the non-traditional student. The subcategory that scored second, with question number 2 '*In our network we treat each other in a good way*', scoring highest (5.1) refers to mutual respect and confidence.

Average item scores per subcategory
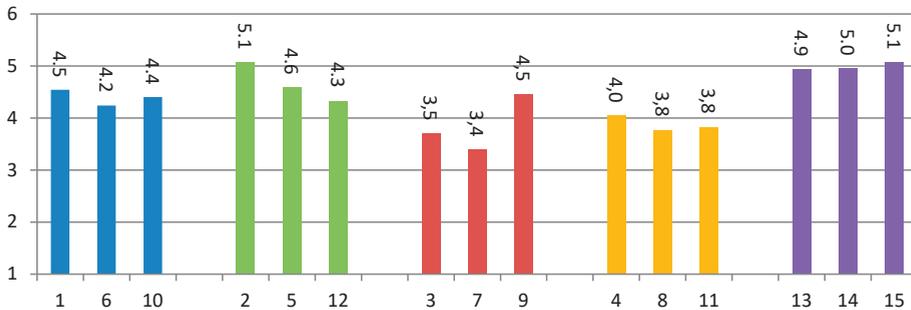
Figure 4.2 Average item scores on the subcategories (Network Barometer)

As could be expected, the subcategory 'connection with daily practice' scores the lowest with statement 7, '*The results of our network are sufficiently accessible to people outside our network*' being the lowest overall. This is not surprising as the project itself did not produce any tangible, easy to implement results during and shortly after the planned five project meetings

4.3.4   Fourth research question

The fourth research question was: *'How do teachers view the role of social media as a complementary element of powerful learning environments?'* To answer our fourth research question we used data from the interviews and focus group sessions.

The visions and ideas of the teachers expressed in the interviews concerning their expectations of the project can be summarized in three broad, technology-related themes. (1) Strengthening and extending the group dynamics by determining how social media may fit with group dynamics and interaction and what kind of roles teachers must play and what they should take into account. The answers to these questions could provide insights and directions for further professional development. (2) Media literacy for young people, by apprehending the possibilities and impossibilities concerning social media use for AKA students, to get insight into how they become aware of the risks and opportunities associated with it. The answers to these questions could provide insights and directions for further curriculum development. (3) Strengthening the pedagogy/teaching methods with technology integration, by exploring how digital technologies can be used to develop activating teaching methods in the AKA program and in this way better align pedagogy with technology.

Strengthening and extending the group dynamics by determining how can fit into the group dynamics and interaction, was the first theme summarized on the basis of the

interviews. Some teachers (n = 3) already use social media to communicate outside of school hours with their students. In their eyes it makes interacting with students more flexible and provides opportunities to respond quickly and effectively outside the classroom. As a project member remarked during the interview when talking about the use of WhatsApp:

> "It allows for a lot of regulation and supervision up front and afterwards. It then becomes much easier to take preventive measures. You can easily prevent calamities."

Enhancing students' media literacy, their apprehension of the do's and don'ts concerning social media, understanding the risks associated with it and learn what appropriate and adequate behavior on the Internet entails, was the second theme summarized on the basis of the interviews. These skills are needed in view of the labor market where communication and presentation via the network are becoming increasingly important. As one of the project members remarked during his interview:

> "Large companies such as KPN, AH, Kruidvat et cetera have closed-system websites on which their staff must follow courses or training programs. It is important to prepare students for this new world of learning. When KPN for example has introduced a new device, they demand that their employees find the time and a way to acquire the knowledge needed to operate it. That is digitally assessed. When employees default on that responsibly, it creates problems at work."

Integrating technology and thereby strengthening the pedagogy/teaching methods, using technology to develop activating teaching methods in their education and better aligning pedagogy with technology by exploring how digital technologies can be used, was the third theme summarized on the basis of the interviews. As one of the project members from Team 3 remarked:

> "For these young people it [social media use in school] is more about social support than educational use in the meaning of classes and exercises."

As the project itself was meant to be an exploratory journey, there were no concrete project goals stated in detail beforehand even though the data from interviews might have seemed to indicate that. The meetings towards the end of the project resulted in more clear and precise actions that were connected to subsequently scheduled meetings (6th, 7th and 8th) shortly before and after the summer holidays.

   The project members were keen on creating shareable results, for example creating a set of social-media workshops for their colleagues, or devising models and formats that could aid in the design of learning activities. The agreed upon formulation of more explicit goals towards the end of the project signified that the project meetings

functioned partly as a form of negotiation and a coming to terms on the different educational perspectives of project members.

With regard to the goals we retrieved from the interviews: we found teachers working on exchanging ideas about using WhatsApp for surface-level guidance (goal: strengthening and extending the group dynamics), setting up social-media workshops for teachers (goal: integration with and strengthening the pedagogy/teaching methods) and finally working towards additional workshops covering students literacy issues (goal: media literacy for young people). In conclusion, the results that were formulated during the final project meetings do align with the expectations expressed during the interviews.

4.3.5   Fifth research question

The fifth research question was 'How do beliefs and perceptions of students' needs inform and influence teachers' collective design decisions with regard to using social media as part of a powerful learning environment?' *To answer our fifth research question we used data* from the online survey and paper-based questionnaire.

Results from the online survey indicate that the AKA teachers are aware of their students' opinions on social media use in the classroom, as indicated by Table 4.7 Still they were more inclined to comply with the opinions of colleagues and their team managers than with the opinions of their students.

The first project meetings were mainly concerned with the first goal we distilled from the interviews, e.g. issues related to surface-level guidance, and the third goal, e.g. issues related to LMS-type questions about distributing and sharing learning materials and assignments in a safe and secure manner. In effect, only two meetings showed any explorative progress. The second meeting had no noticeable effects other than reinvigorating teachers' beliefs about identity, privacy and security issues. In fact, no concrete examples of pedagogical technology use in classroom settings were exchanged among the project members until the fourth meeting. This meeting involved presentations by four students from a higher-level VET program demonstrating the learning activities and projects they were involved in. These learning activities and projects specifically involved the use of social media. After the presentations, the students individually engaged with four small groups of project members in a hands-on exploration of the use of Facebook sitting together at a desk-top computer.
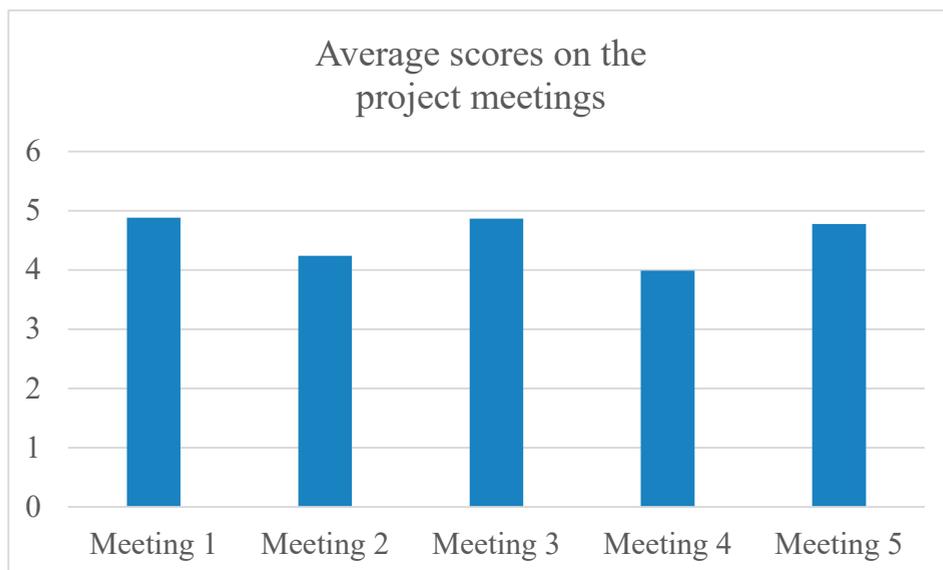
Figure 4.3 Average scores of the project meetings (Network Barometer)

Although the fourth meeting scored lower on the Network Barometer (see Figure 2), that meeting did seem to create a breakthrough in the minds of the teachers. In the first three meetings, discussion about social media use outside of the classroom was relaxed and inspirational as the teachers were eager to share their personal ideas and practices. However, the discussion about possible social media use in the classroom was of a different order, as if in-class use was somehow more controversial. Especially aspects of safety and security dominated the discussion.

The breakthrough that followed the fourth meeting was most noticeable in the way the project members changed their line of reasoning from questioning the possibilities of modern technology – especially its administrative functions regarding security and privacy – to questioning their own and their students' pedagogical wants and needs and then turning to modern technology for answers and solutions.

4.4   DISCUSSION AND CONCLUSION

We were interested in practice-driven experimentation and set out to observe how teachers' beliefs guide their exploration of social media use in the learning environment. AKA teachers are better acquainted with social media than was suggested by one of the team managers. Even though the teachers in the project show more intensive social media use (80%) than the average AKA teacher (50%), they initially experienced inhibitions with regard to social media use in the classroom. This may

indicate that teachers' intense private social media use or regular use in one-to-one situations with students outside of class, does not necessarily imply that these teachers have developed beliefs and views beyond surface-level guidance and social support toward social media use classroom of and learning activities. It may also indicate that teachers' beliefs and views cannot be readily or easily translated into everyday pedagogical practices. This means that teachers may still need to put more effort into understanding how technology works in education and how it may add value to their teaching strategies, before they are able to work out a way of translating beliefs into instructional methods that are supported by relevant ICT tools (Ertmer & Ottenbreit-Leftwich, 2010).

AKA teachers are well aware of the needs of their students but have yet to gain more insight into how to connect these needs to their pedagogical practices. The most tangible practices where social media was used, applied to surface-level guidance and social support.

That AKA teachers focused their attention, time and effort solely on adolescent AKA students is understandable yet not unavoidable. It appears that starting an innovation-oriented exploration and discussion from a technological perspective can result in inadvertently channeling the attention and scope to the more active users, i.e. the adolescent AKA students who may pick up certain technological innovations more quickly than adult students. A commonplace argument that often triggers this kind of student- oriented reasoning is the belief that education should connect with the life world of its students, making a meaningful, real-world connection. This argument is reflected in one of the explicit questions asked during the focus-group sessions: "How can we modernize our education, i.e. connect it to the world outside?" This question was not part of the guideline devised for the focus groups but arose during the conversation. The motive of a real-world connection is also reflected in one of the project members' remarks during his interview where he said that the AKA students have to be raised and trained in order to learn how to function in a digital world. In following this line of reasoning, the needs of the adult AKA students were neglected in the explorative journey the teachers in the project undertook.

Adult AKA students who are also parenting in disadvantaged families are often barely able to show or demonstrate to their kids the online opportunities and benefits of Internet use. As a result, restrictive mediation strategies and prohibitions are the most common among parents with a low level of education. Children from these disadvantaged families show a heightened awareness of the many risks of the use or ICT's (Paus-Hasebrink, Sinner, & Prochazka, 2014), but little awareness of opportunities and also experience accompanying signs of anxiety and ambivalence when it comes to daily use of social media (see chapter 3).

It is obvious from the online survey data that the AKA teachers are less uninhibited than we might have expected from analysing statements in the interview data. Our online survey data clearly showed a subjective norm and attitude-mediated power

(Figure 4.1). The AKA teachers feel motivated to comply with the opinions of their team manager and with the social media use of colleagues, both in their own organization as well as in other organisations (Table 4.9). As mentioned before, the interesting and puzzling part of this is that the opinions of team managers had not been directly or overtly expressed and the habits of colleagues had not actually been witnessed.

The team managers involved in the project regularly stressed from the outset that the project should not become too large or ambitious without them explicitly mentioning the implied dangers of being ambitious. This critical, managerial belief resurfaced at regular intervals during project meetings. Research on factors that relate to success in ICT related innovation projects, indicates that 'Project optimization: Start small and then go for it!', representing a cluster of factors, has only medium effects as a predictor of success (Wopereis, Kirschner, Paas, Stoyanov, & Hendriks, 2005). The factor 'Ambition counts', that is part of the cluster 'Added value', however ranks as one of the ten most important factors. So, in the end we could conclude that a 'start small and go for it' attitude may not have been the best approach in going forward.

It may be of interest to further investigate age or age-related differences regarding teachers' beliefs influencing the approach and adoption of technology. Our findings concerning generational influences were non-significant for the TBP-constructs. That said, the differences in social media use, when we take gender into account, are interesting and deserve further investigation.

Findings from the TALIS 2013 Dutch country report (Van der Boom & Stuivenberg, 2014) however, indicate that younger teachers are more interested in receiving feedback with regard to the pedagogical quality of their teaching strategy while older teachers are more interested in receiving feedback concerning the quality of their relationships with students. This difference in preferences regarding feedback, i.e. professional needs, may also point to possible differences in underlying beliefs with regard to the usefulness of technology. That would mean for instance that younger teachers may be more interested in the use of technology to strengthen their teaching methods while older teachers may be more interested in the use of technology to strengthen their relationships with students.

There are several limitations associated with this study. First, two of our data sources (the interviews and the Network Barometer) rely on teacher's perceptions and self-reports. When discussing professional needs and student needs, these concepts were inferred based on the perceptions of the interviewed AKA teachers.

Other limitations include those commonly associated with small samples in case studies as small sample sizes in research limit the generalizability of the findings. A larger sample was not feasible as the AKA teachers we observed, were involved in an established project that we set out to observe. To counter the effects of the small sample size, we decided on a mixed method approach and administered a survey.

Future research in VET using the TPB-model to explore teachers' beliefs, could add external stakeholders, like employers and training companies, as normative referents

when exploring teachers' normative beliefs and motivation to comply. It could be relevant to explore whether teachers are sensitive to and susceptible to the opinions of employers and training companies when it comes to the use of social media as it relates to employability issues that their students are undoubtedly facing.

A VET college that advises its teaching staff to use a single LMS across all tracks and programs, may ignore the fact that a single LMS will hardly be able to provide the pedagogical diversity and social support for all the different teaching strategies, especially the ones that seek to connect student learning to contexts outside of school. The main users of LMSs are using the LMS as an addition to traditional curriculum-driven classroom practices. It is therefore unlikely that requirements stemming from 'real' online learning will affect the development of these platforms (Vogten & Koper, 2014).

We therefore need to consider how to move teachers toward more student-centered practices once their competence and confidence has increased through exploratory use of educational technologies. This alteration in teachers' beliefs and practices should however not result in fully adapting one's teaching practice to the learning approaches preferred by students (Kaldeway, 2006). Teachers have to creatively and critically balance and weigh their students' needs and problems with the demands their students may encounter in school and in their future careers. Teachers also have to consider which technologies best respond to these demands within the framework of this atypical, non-school learning environment that fits these demands the best and can also be appropriated if necessary.

Chapter 5

Do levels of social competence influence the perception of social affordances among students with low levels of education? An exploratory case study of the relationship between offline and online socializing factors

From literature we know that at-risk students with low levels of education and with low levels of social competencies, do not benefit from online learning opportunities. This suggests a vicious circle, because levels of social competence and degrees of engagement in offline and online communities exert a reciprocal and cumulative effect on each other. In this descriptive and exploratory case study, we studied the relation between offline and online factors, that is, levels of social competence and the perception of social affordances, that influence online social dynamics. The results we found on the social affordances 'sociability' and 'social presence' were very low. However, we did not find a significant relationship between levels of social competencies and the perception of social affordances. We think it is important to further explore how at-risk students visualize their communication partner during online synchronous and a-synchronous interaction, how this information is processed and used by these students during interactions and whether gender related expectations or preferences regarding technology mediated interpersonal experiences influence at-risk students' perception of social affordances. We suggest incorporating motivational affordances in the design approach of learning environments.

5.1   INTRODUCTION

Time and again, research shows that those with low levels of education (the 'low educated') show up as lagging behind others with regard to Internet use (Van Deursen & Van Dijk, 2012). Although modern youth in general favor new and interactive media and use these media with an increasing frequency (Schönbach & De Waal, 2010), the low educated can be seen as belonging to a hard core of non-users (Huysmans & De Haan, 2010). They benefit less from modern information sources (Schönbach & De Waal, 2010), feel insecure with regard to digital reading (OECD, 2011) and do not use online information sources in a strategic, i.e. economic and socially efficient and beneficial way (Van Deursen & Van Dijk, 2012). It seems that "lower living standards or a lower educational capital do not systematically involve less frequent or less sophisticated practices" with regards to Internet use (Kellner, Massou, & Morelli, 2010: 5) and contend that the habits of non-users are worth challenging and worth changing.

Those who want to keep up with the development of the knowledge-based society, will need to be skilled in dealing with information and communication technology (ICT). Users will have to learn how technology may serve their purposes, how to control their decisions and actions and become aware of the consequences of those decisions and actions (Livingstone, 1999). In literature, the question of non-use with regard to ICT is mostly considered a special 'case of use' or, more commonly, as a lack of use (Kellner et al., 2010). Those who do not keep up with the developments of modern technology and do not stay connected and engaged, lag behind and ultimately end up on the wrong side of the so-called digital divide.

Research on types of non-use (Selwyn, 2006) and on literacies (Warschauer, 2010) gave way to a sociological turn, and in making that turn, researchers abandoned crude and superficial, use- and non-use and illiterate-literate dichotomies. Selwyn recommended including social circumstances in the analysis of use and non-use, and Warschauer recommended that literacies should be acquired in connection with social contexts addressing relevant social concerns. Both kinds of recommendations point to the fact that offline factors, like social circumstances, social relevancy, and social action, influence online behavior and explain deliberate non-use (Mariën & Van Audenhove, 2010) or the delegation or outsourcing of activity (Mejias, 2007; Van Oenen, 2008). It also points to the reverse effect that on-line factors, like selective media use, determine media repertoires – that is, patterns of behavior and meaningful offline practice (Hasebrink & Domeyer, 2012). Acknowledging the complexity of ICT use and non-use has led to the insight that the process of defining ICT use and acquiring skills or literacies should be embedded within a broader social and situational context, involving a wider set of both online and offline socio-economic, cultural and cognitive factors (De Haan & Sonck, 2012; Kellner et al., 2010).

In this study, we focus on the relationship between the offline and online factors that influence the quality and meaningfulness of the online social space that at-risk

students socially interact in while learning collaboratively. That is, we are specifically interested in the ability of at-risk students to perceive and adequately judge the quality of support mechanisms (Preece & Shneiderman, 2009) or social affordances (Kreijns, Kirscher, & Jochems, 2002) of online learning environments that are meant to promote social interaction. The importance of such mechanisms or features that promote interaction lies in the fact that problems with social dynamics are a major cause of ineffective group actions in a distance-learning environment. Social dynamics refers to "processes that have to do with getting to know each other, committing to social relationships, developing trust and belonging, and building a sense of online community" (Kreijns, Kirscher, & Jochems, 2003: 342).

These observations stress the necessity of taking a closer look at the social and socio-psychological aspects of collaborative learning and how they can be supported.

We aim to address the problem of the relationship between offline factors, i.e. the social competencies of low educated, Dutch at-risk Assistant Training (AT) students, and online factors, i.e. the affordances designed to afford the creation of sociable, collaborative learning environments: "a social space where trust, sense of community, and strong interpersonal relationships exist" (Kreijns et al., 2013).

We are interested in this problem because teachers who work with special needs and at-risk students in vocational education like to explore the possibilities of learning technologies and social media (see chapter 4), as they are interested in differentiating their teaching methods and personalizing their students' learning activities (Groenenberg & Hermanussen, 2012). In the case of teachers who work with low educated, at-risk Assistant Training (AT) students, aspects of personalization and differentiation afforded by technology may effectively complement a need-supportive teaching style (see chapter 4). Differentiation is one of the teaching methods that enhances social competencies and 'forms' of collaborative learning are learning activities that enable students to practice and develop their social competence through the social dynamics of group learning (Kuhlemeier, Van Boxtel, & Van Til, 2012).

However, when the claim is made that disadvantaged, excluded youth may benefit socially from being engaged in online social networks and develop social skills along the way, we contend that the linear causality that is expressed by this claim should be challenged, as the literature on ICT use and non-use has revealed various complexities surrounding engagement and disengagement and the influence of social factors. Mere interaction and participation in online networks does not contribute to the development of skills, whether operational and strategic skills (Van Deursen & Van Dijk, 2012), or the development of social skills, as the largest deficits in online practices occur in terms of social competence (Pfaff-Rüdiger, Riesmeyer, & Kümpel, 2012).

In the following section we will elaborate on the constructs and concepts that help us in addressing the problem and answering our research questions. We are interested in the use of social media to promote social interaction and engagement in learning environments designed for at-risk students. Additionally, we are interested in the

effects of at-risk students' social-skill levels on the perception and judgment of affordances, that is, the perception-action coupling (i.e., see-do; Kirschner, 2002). Therefore we will draw mainly on literature that addresses the concept of affordances in relation to collaborative and social learning activities.

5.1.1   *Online participation as opportunity*

As the use of social networks fosters relationships and increases trust and political engagement (Hampton, Goulet, Rainie, & Purcell, 2011), active use of new media in different social contexts is seen as a beneficial socializing strategy to get disadvantaged groups online and have them develop the necessary skills to ensure that they participate actively (De Haan & Adrichem, 2010; Livingstone, Bober, & Helsper, 2005). Different online social contexts not only provide learning opportunities (De Haan & Adrichem, 2010; Livingstone, Bober, & Helsper, 2005) but online communities and networks themselves may also provide social support from agents and resources (Mariën & Van Audenhove, 2011; Zinnbauer, 2007). In effect this 'reciprocity' proposition presumes what is more commonly known in social science with regard to socializing processes: participation requires social competencies as a prerequisite but in the meantime participation also supports or facilitates the development of social competencies (Ten Dam, Volman, Westerbeek, Wolfgram, Ledoux, & Peschar, 2003). Yet, the accumulation of knowledge, skills or resources is not necessarily what drives or motivates members of online networks.

In online environments, as compared to the offline world, certain social information is missing or not visible (Valkenburg & Peter, 2011), information is often ambiguous or of dubious quality, key social boundaries are blurred (Livingstone, 1999) and social contexts may even collapse (Boyd, 2010). This influences the quality of perception. Successive socio-constructivist processing of this information in order to make adequate judgments and take appropriate action therefore requires more than ecological information and cues and also relies on past experiences or stored knowledge (Gregory, 1974).

The problem with the low skilled and especially those with low levels of social competence, is that their weak learnability or trainability as well as their general lack of motivation (Fouarge, De Grip, & Nelen, 2009) can be considered a 'low-skills trap'. The low educated and low skilled are less likely to participate in formal and informal learning activities, and their social integration and fit could use a boost as this low-skills trap stands in the way of accumulating skills and resources in formal and informal ways. This trap also stands in the way of a socializing strategy that attempts to get disadvantaged people back in the game by simply putting them on the field.

We aim to explore whether low levels of social competencies of at-risk students influence their perception of social affordances that are part of online environments, which provide opportunities for learning.

5.1.2   Theoretical Framework

The concepts and constructs we found relevant for answering our questions originate from literature on Computer Supported Collaborative Learning (CSCL) and on social competencies.

5.1.3   Social affordances

An affordance, a construct first defined by perceptual psychologist Gibson (1977), is primarily a perceptual relationship between an agent's cognition and his environment. The concept of affordance has been appropriated for the world of technology and applied in fields like Human–Computer Interaction (HCI), Computer Mediated Communication (CMC) and Computer Supported Collaborative Learning (CSCL). We are mainly interested in the field of CSCL and the application of the social affordances in the context of collaborative learning in distributed online environments.

Social affordances can be seen as designed prerequisites that support and facilitate the non-task-related processes and account for psychosocial factors that affect human interaction and collaborative processes, for example social intentions, considerations or inhibitions. This involves intentionally achieving a 'mutual dependency' or reciprocal relationship between affordances of the environment and the intentions of the users. Design also involves a 'perception-action coupling', which is a coupling of users' expectation and attention with the invitation to act, and it is also guidance to initiate action through the design of the collaborative environment (Kirschner, 2002; Kreijns et al., 2003). For an user, mutual dependency and a reciprocal relationship have to be understood in the same sense as they are understood or intended by a CSCL designer (Jones et al., 2006; Krippendorff, 1997).

Social affordances in CSCL research refer to a set of three constructs, namely sociability, social presence and social space. These constructs together make up a research framework and from a design perspective determine the quality of social interaction and the learning process in CSCL environments (Strijbos, Kirschner, & Martens, 2004). This theoretical framework addresses properties of CSCL environments that are intended to draw out a desired type of interaction. Sociability stands for the extent or degree to which an online environment facilitates the socio-emotional dimension of social interaction that is involved in technology-mediated, informal learning. Social presence stands for the degree to which people experience each other as "real" in online interaction and communication (Strijbos et al., 2004). The "realness" of the other is co-determined by an environment's sociability. This means that sociability and social presence are strongly interrelated and interdependent.

When social affordances are not specifically designed for users with low levels of social competencies, they may prove to be too much of a cognitive challenge and hence produce a destructive friction between user and environment (Vanthournout, Donche,

Gijbels, & Van Petegem, 2009). This friction comes at an emotional cost and produces disengagement (Robinson, 2009). If on the contrary, the provided affordances were properly understood by users with low levels of social competencies, (for example on a cognitive level), these 'informed' users would not necessarily be able to use this stimulus information adequately – that is, to convert the perceived affordance into an actionable opportunity. Although CSCL designers are interested in constraints and conventions and are keen on incorporating these into their designs, converting perception into action still requires proper judgment on the part of the user, informed by past experiences and stored knowledge (Gregory, 1974). So the perception-action cycle itself requires a learning process that enables users to convert affordances into actionable opportunities.

In our study we decided to use the constructs sociability and social presence as measures for determining how at-risk students perceive social affordances.

5.1.4   Social competencies

When we approach online collaborative learning from a socio-cultural perspective, this means that learners are required to participate in online social and cultural activities (Ten Dam & Volman, 2007). Participation in online social and cultural activities presupposes the possession of social competencies. Social competence is defined as the 'capacity to act adequately in social situations' (Ten Dam & Volman, 2007; Joosten, 2007) and is considered a key competency. It is a multidimensional concept, consisting of the components knowledge, behavior, attitude and reflection that interact within intrapersonal, interpersonal and social dimensions (Ten Dam et al., 2003). Of these three dimensions, the accent in research is generally on the interpersonal dimension, analyzing young people's relationships with others and the quality of these relationships, including contact with peers, friendships, and working and solving problems together (Ten Dam & Volman, 2007). In an educational context this concept is approached mainly from two distinct perspectives, i.e. an 'educating for adulthood' perspective and an 'educating for citizenship' perspective. The former perspective points to developmental tasks that contribute to an individual's social 'chances'. The latter perspective points to social tasks that contribute to an individual's social 'responsibilities'.

Research on the concept of social competencies has found that of its constituent components: knowledge, behavior, attitude and reflection that are conceptually distinguished (Ten Dam et al., 2003), especially knowledge about social tasks is best considered an independent element as it correlates only marginally with actual social practices (Ten Dam, Geijsel, Reumerman, & Ledoux, 2011). This would mean that an increase in knowledge would have no effect on the quality of online social practices. This also works the other way around as we have stated before: an increased participation in online social practices, does not necessarily have a positive effect on

knowledge about social competencies and forms of adequate behavior. It is even been found that users display online behavior that leads to a decrease in social skills, For example when youth-follow specific needs, i.e. a need for connection and autonomy, and in order to fulfill their needs willfully engage in potentially dangerous online interaction, like privacy related disclosure of private information, or potential conflict with the interests of offline social agents, like parents (Pfaff-Rüdiger et al., 2012).

There are also indications that gender is of influence on the levels of social competence (Joosten, 2007) and the processing of social information (Kuhlemeier et al., 2012). This influence, among other factors, is strong enough to consider the exploration of gender-related pedagogical differentiation (Heemskerk, Van Eck, Kuiper, & Volman, 2012). There is also evidence that perceptual performance (Lee, 2005) and the development of online relationships (Di Gennaro & Dutton, 2007) are influenced by gender. Therefore we decided to use gender as one of the variables to incorporate into our research.

Literature indicates that both a meaningful, perceptual relation and the ability to convert perception into social appropriate action, depend on the level of social competencies of the intended users. It requires past experiences or stored knowledge (Gregory, 1974) and involves relatively long-lasting changes to an organism's perceptual system that improve its ability to respond to its environment (Goldstone, 1998). Social affordances, intended to positively enhance the social climate in online social environments and create social space, will not be properly understood by users with low levels of social competencies. Following the literature we argue, first, that an online social space configured by using social technology, requires a meaningful, perceptual relationship between the affordances of the online space – i.e. sociability and social presence – and the intended users (Kreijns et al., 2002). Second, the intended users must possess the ability to convert the perceived affordances into actionable opportunities by means of perceptual learning (Gibson, Adolph, & Eppler, 1999).

This raises the following questions: is the perception-action cycle hampered by at-risk students' low levels of social competencies and do at-risk students' low levels of social competencies enforce the 'low-skills trap'? In other words, it is important to explore whether levels of social competencies of the low educated influence their perception of social affordances.

5.1.5 Research questions

In this study we answer the following research questions:

- What kinds of devices and social media do at-risk students use?

- How do at-risk students feel about the use of technology in education and how do they rate their teachers' ICT-skills?

- How do at-risk students perceive social affordances, i.e. sociability and social presence, with regard to social media use and does gender influence the perception of social affordances?

- How do the social competencies of the at-risk students relate to their perception of social affordances, i.e. sociability and social presence, with regard to social media use?

5.2   METHOD

5.2.1   *Participants*

The participants were all students enrolled at a regional college for vocational education (VET college) in an Assistant Training (AKA) program. The average age of the 45 participants was 18.3 years *(SD = 7.94)*. Participants were 26 male and 19 female, aged 17 to 24 years (male: M = 19,0*, SD* = 2,05; female: M = 17,42 *, SD* = 0,67). The AKA program prepares youth up to the age of 23 who have not yet attained a 'basic qualification' for the labor market and who are considered potential ESL and/or it prepares them for the transition to a full secondary qualification track (ISCED 3; MBO-2 level). The preparation of these students takes place in different, labor-market oriented tracks. Participants were selected randomly from these tracks and approached to participate in the study.

In Table 5.1 we provide descriptive information about the participants who completed our survey. Table 5.1 contains information on the gender, age and educational background of our participants.

Table 5.1 *At-risk students' characteristics: gender, age and educational background*

Characteristics Gender	F (n=19)	M (n=26)	Total (n=45)	%
Age				
16 – 18	19	12	31	68.89
19 – 22	0	12	12	26.67
23 – 25	0	1	1	2.22
> = 26	0	1	1	2.22
Educational background				
Primary education	16	22	38	84.44
Special education	6	9	15	33.33
Pre-vocational Secondary Education (Vmbo)				
- basic vocational track	10	13	23	51.11
- combined track	2	4	6	13.33
- theoretical track		1	1	2.22
- 'learning track support' (lwoo)	3	1	4	8.89
General Secondary Education (Havo of vwo)		1	1	2.22
Special secondary education	1	2	3	6.67
Practice school (Praktijkonderwijs)	4	6	10	22.22
Other	3	2	5	11.11
N	19	26	45	
%	42	58		100

5.2.2   Materials

5.2.2.1 Survey.

We constructed a survey that covers descriptive and exploratory categories (see Table 5.2).

Table 5.2 *Variables, question types and number of items*

Variable	Type	nr. of items
social competence	exploratory	26
access to and use of different types of devices and social media use	descriptive	4
exploratory questions on sociability	exploratory	10
social presence	exploratory	5
social media use in the context of school and the classroom and teacher quality	descriptive	2

The descriptive categories covered the use of hardware, i.e. types of devices, software, i.e. applications and social network sites, the students' expectations about ICT-use in education and the students' impression of their teachers' ICT-skills. The questions about students' expectations about ICT-use in education were based on part of questionnaire used for a study on the use of mobile devices and social media at a Dutch University (Bos & Kruiderink, 2012: 17). The exploratory scales cover the variables social competence, sociability and social presence that were based on validated scales and approved lists Below we briefly introduce each of these scales.

5.2.2.2   Social competence scale.

We used exploratory questions on social competence. This one-dimensional, 3-point Likert scale comprised of 26 items, is based on the Pupils Social Competence Observation List (pupil-SCOL), developed by Joosten (2007) and is COTAN approved. The range of the pupil-SCOL runs from 26 to 78. Table 5.3 below presents the norms for the total scores of the pupil-SCOL.

Table 5.3 *Distribution of the scores on the pupil-SCOL*

Norm group	Total score	Meaning
Satisfactory	58 - 78	The student is sufficiently socially competent
Unsatisfactory	26 - 57	The student is insufficiently socially competent
Unsatisfactory	When scoring '*almost never*' 3 times or more*	The student may be insufficiently socially competent

* We corrected a student's total score when a student scored the response 'almost never' 3 times or more.

The pupil-SCOL manual states that it is important that respondents/pupils estimate/score themselves socially competent across the full range. This estimate is not always reflected in the total score. The instrument allows pupils to compensate low scores with high scores. A student who scores 'almost never' too often, i.e. more than three times, yet who did reach a sufficient total score (>57), will be noticed and labeled as a possible unsatisfactory score.

5.2.2.3   Sociability scale.

This variable was measured using exploratory questions on sociability. This one-dimensional, 5-point Likert scale comprised of 10 items, is based on the English sociability-scale developed by Kreijns, Kirschner, Jochems and Van Buuren (2007) which has a high internal validity (α= .92). The original English items were translated into Dutch and any references to the term 'CSCL environment' were replaced by a reference to online, ICT-based environments, devices or types of interaction. For example, a question starting with "This CSCL environment enables me to easily contact…" was translated into Dutch whereby CSCL references were replaced by references to ICT-based communication devices "With a smartphone/ mobile phone / personal computer I can easily contact …". We regarded this substitution as legitimate as the authors who devised the scale themselves regularly use the term 'CSCL environments' and 'ICT-based environments' interchangeably.

5.2.2.4   Social presence scale.

The scale consisted of exploratory questions on sociability. This one-dimensional, 5-point Likert scale comprised of 5 items, based on the sociability-scale developed by Kreijns et al. (2011) which has a high internal validity (α= .81). The original English items

were translated into Dutch and like with the scale 'sociability', any reference to the term 'CSCL environment' was substituted by a reference to online, ICT-based environments, devices or types of interaction. For example, a question starting with "When I have real-time conversations in this CSCL environment…" was translated into Dutch as follows, "When I am chatting online 'live'…". Thereby replacing references to learning environments with online communication references

For this particular scale, we also felt obliged to consistently substitute 'real-time' and 'asynchronous' with 'live' and 'not live' respectively (including the single quotation marks). We assumed that our participants would have difficulty interpreting the word asynchronous and therefore substituted it with 'not live'.

5.2.3   Design and procedure

We used a cross-sectional, explorative design because we wanted to explore the behavior of at-risk students and the possible effects of this behavior on their perceptions of technology-mediated social affordances. We therefore studied how levels of social competence relate to online factors that influence social media use. This diagnostic type of research is particularly suitable for studying the causes of students' behavior. Qualitative approaches allow for studying the complexity and interdependence of the different offline and online factors which ultimately explain non-use and the reasons why users may abandon the use of ICT or why non-users may become users in the long term (Kellner et al., 2010). These approaches are superior to standardized quantitative methods when investigating literacy practices in the everyday lives of users because it allows for the qualitative focus on "the context, the setting and the subjects' frame of reference" (Marshall & Rossman, 1989: 46). We also used a quantitative, survey technique to explore in more detail how at-risk students perceive and use social affordances. The survey was administered online.

5.2.4   Data analysis

We analyzed our descriptive data on the basis of frequencies. We performed several independent-samples t-tests on the survey data (items 84, 88, 94, 98 and 100) to establish whether gender related effects could be at work. We compared certain descriptive data with results from Statistics Netherlands to control for any deviations in ownership of devices and user preferences with regard to applications. We performed a Mann-Whitney U on the survey data to establish whether a difference in level of social competence (satisfactory vs. unsatisfactory) relates to a difference in scores with regard to our dependent variables sociability and social presence. To perform the Mann-Whitney U, we divided our participants into two categorically different groups and compared the mean ranks of these two groups for the dependent variables sociability and social presence.

5.3   RESULTS

In this next section, we handle our research questions and present an analysis of the results.

5.3.1   *The use of devices and social media by at-risk students*

The first research question was: What kind of devices and social media do at-risk students use? The tables below contain information on the ownership or access of devices (PC/laptop/tablet) or mobile devices (smartphone, regular cell phone) and the types of applications the participants use. In this study we didn't consider tablets 'mobile' devices, as they are not used in the same ubiquitous way as smartphones or regular cell phones.

The most used/owned device is the laptop, followed by the PC and the iPad/tablet. When we look at the variance with regard to gender, the only score that deviates significantly is the answer to 'none of the above', meaning that most non-users are male participants (83%).

Table 5.4 *How many at-risk students own a device and what do they use it for?*

		F (n = 19)		M (n = 26)		Total given answers (n= 45)	
		N	% of total	N	% of total	N	% of given answers
I have a: (several answers possible)	Respondents	18	46	21	54	39	
	Laptop	12	46	14	54	26	67
	PC	10	45	12	55	22	56
	iPad/tablet	6	50	6	50	12	31
	e-Reader	0	0	1	100	1	3
	None of the above	1	17	5	83	6	15
I have a (several answers possible)	Respondents	19	48	21	52	40	
	iPhone/smartphone	11	52	10	48	21	53
	Regular cell phone	8	47	9	53	17	43
	Don't own a phone	0	0	5	100	5	14
I use my PC/laptop/ tablet mostly for (max. 3 answers)	Games	5	26	14	74	19	50
	E-mail	14	50	14	50	28	74
	Texting	7	47	8	53	15	39
	Viewing/editing photos	10	50	10	50	20	53
	Viewing movies	10	38	16	62	26	68
	Looking up information	10	40	15	60	25	66
	Not applicable	4	57	3	43	7	
I use my smartphone/ cell phone mostly for (max. 3 answers)	Games	3	23	10	77	13	33
	E-mail	8	42	11	58	19	49
	Texting	17	53	15	47	32	82
	Viewing/editing photos	10	53	9	47	19	49
	Viewing movies	3	23	10	77	13	33
	Looking up information	3	27	8	73	11	28
	Keeping in touch with friends	12	46	14	54	26	67
	Chatting	11	42	15	58	26	67
	I don't use my smartphone	1	17	5	83	6	

Table 5.4 indicates that most users own a phone and that the variance and ratio between smartphones and regular cell phones was not noticeable. What does stand out, however, is the fact that the response to 'don't own a phone' is only answered positively by male participants. In taking both 'devices' and mobile devices together, it is striking that almost only male participants seem to be non-users. Non-use among our female participants only concerns the use of PC/laptop/tablet, indicating that all female participants use a mobile, handheld device. Of the participants who indicate not owning a mobile, handheld device, 100% is male.

The participants use a PC/laptop/tablet mostly for e-mailing (74%), viewing movies (68%) and looking up information (66%). These results also roughly correspond with national data indicating that lower educated use the Internet for sending/receiving e-mails (89%), looking up information (73%) and chatting (32%) (CBS, 2015). Gender-related variance is large with regard to gaming, e-mailing and viewing movies. Male

participants show a greater preference for gaming (74%) than might be expected. Female participants show a greater preference for e-mailing and viewing/editing photos than might be expected.

A smartphone/cell phone is mostly used for texting (82%), keeping in touch with friends (67%) and chatting (67%). Gender-related variance is large with regard to gaming, viewing movies and looking up information. Male participants show a greater preference for gaming (77%), viewing movies (77%) and looking up information (73%) than female participants (23%, 23%, resp. 27%). Female participants show a greater preference for texting (53%) and viewing/editing photos (53%) than males (47% resp. 47%), but these differences are smaller.

Table 5.5 *At-risk students use of social network sites*

		Frequency								Total			
		never		a		b		c		n	%	n	%
		F	M	F	M	F	M	F	M	F		M	
Hyves	n	6	16	5	10	6	0	2	0	13	68	10	38
	%	32	62	26	38	32	0	11	0				
Linked-In	n	17	25	0	2	1	0	0	0	1	5	2	8
	%	89	96	0	8	5	0	0	0				
Facebook	n	2	9	1	0	5	4	11	13	17	89	17	65
	%	11	35	5	0	26	15	58	50				
Twitter	n	6	21	3	0	2	2	7	4	12	63	6	23
	%	32	81	16	0	11	8	37	15				

a = less than once per week; b = several times per week; c = several times per day;
F *(n = 19)*, M *(n = 26)*

These results do not correspond entirely with national data. In general, Dutch female Internet users more frequently use texting apps like WhatsApp (72%) and social network sites like Facebook (66%) than male Internet users (69% resp. 58%) (CBS, 2015). Our female participants showed a higher frequency with regard to Twitter. The national gender related differences are smaller than the results we found for Facebook. LinkedIn, that is a professional network, seems hardly known or used by the students. The results for LinkedIn do correspond with national data, indicating that only 8% of the Dutch lower educated Internet users use LinkedIn (CBS, 2015). Shortly after our data collection in 2013, Hyves ceased to exist as social network as a result of the large scale exit of users that had begun two years earlier.

5.3.2   Expectations about Educational Technology and Indications of Teachers' ICT-skills

With our second question: How do at-risk students feel about the use of technology in education and how do they rate their teachers' ICT-skills? we wanted to get insight into

at-risk students' expectations with regard to the use of educational technology. Table 5.6 shows the participants' scores on the question: "*I think ICT in education should be more focused on: …*").

Table 5.6 *At-risk students expectations about educational technology*

Item	F (n = 19)		M (n = 26)		T (n = 45)	
I think ICT in education should be more focused on:	n	%	n	%	n	%
digital exams instead of paper-based exams	6	32	8	31	14	31
digital diagnostic testing	3	16	7	27	10	22
exploring new possibilities like using apps, e-readers, Twitter and Facebook	6	32	7	27	13	29
providing more online lessons and modules	2	11	4	15	6	13
providing more online access to services and information via Apps	5	26	10	38	15	33
providing more opportunities for interacting with the teacher during class	2	11	5	19	7	16
providing more opportunities for interacting with the teacher outside of class	1	5	3	12	6	13
collaborative learning	4	21	11	42	15	33
other, …	2	11	1	4	3	7

The items with the highest scores are 'providing more online access to services and information via Apps' (33%), 'digital exams instead of paper-based tests' (31%), 'exploring new possibilities like using apps, e-readers, Twitter and Facebook' (29%). These items scored high for both female and male participants with the exception of 'collaborative learning'. Male participants (42%) scored considerably higher on collaborative learning than did female (21%) participants.

Although 'collaborative learning' scores are relatively high, the provision of online lessons and modules (13%) scored relatively low as did the opportunity for more online interaction with teachers in class (16%). The lowest scores, apart from 'other'(7%), were given to the items concerning the provision of more online interaction with teachers either during class (16%) or outside of class (13%) and providing online lessons and modules (13%).

What stands out a bit unexpectedly, albeit in a positive way, is the high preference for digital exams (31%). As we might consider exams a well-known element of 'traditional' teaching and learning, the fact that our participants scored high on a preference for digital exams seems to indicate that they do not completely reject types of substitution of pedagogical practices. The most important conclusions we can draw about these scores however, is that participants highly rated the use of technology in education as a way of exploring more online services and the use of more online applications .

When asked about their teachers' ICT-skills, the students gave their teachers an overall positive score (*M* = 7.29*, SD* = 1.82). An independent-samples t-test indicated that

scores were significantly lower for women *(M = 6.53, SD = 1.68)* than for men *(M = 7.85, SD = 1.74)*, *t*(43) = 2.55, *p* = .014, *d* = 0.771. Levene's test indicated equal variances (*F* = 0.1, *p* = .929).

5.3.3   At-risk students' perception of social affordances

With our third research question: How do at-risk students perceive social affordances, i.e. sociability and social presence, with regard to social media use and does gender influence the perception of social affordances?, we wanted to get more insight into at-risk students' perception of social affordances. For getting an answer to our third question, we will start by reporting the findings for the variable 'sociability' as one of the two social affordances we used in our study.

5.3.3.1   Sociability.

For reporting purposes, we translated the Dutch version of the statements of the scale sociability into English. On the social presence scale the participants scored low *(M = 23.64, SD = 11.80)*. An independent-samples t-test indicated that scores were lower for women *(M = 22.58, SD = 12.24)* than for men *(M = 24.42, SD = 11.65)*, *t*(43) = .51, *p* = .610, *d* = 0.153. Levene's test indicated equal variances (*F* = 0.2, *p* = .879). The items of the scale showed the following results.

Table 5.7 *At-risk students' scores on the sociability scale*

Sociability	F (n = 19)		M (n = 26)		Total (n = 45)	
Item	M	SD	M	SD	M	SD
A smartphone/cell phone/PC enables me to easily contact my classmates	3.11	1.79	3.12	1.65	3.11	1.7
I do not feel lonely with a smartphone/cellphone/PC	2.47	1.67	2.31	1.51	2.38	1.57
A smartphone/cellphone/PC enables me to get a good impression of my classmates	1.95	1.39	1.88	1.14	1.91	1.24
A smartphone/cellphone/PC allows spontaneous informal conversations	2.42	1.46	2.81	1.76	2.64	1.64
A smartphone/cellphone/PC enables us to develop into a successfully-performing class	1.63	1.16	2.12	1.36	1.91	1.29
A smartphone/cell phone/PC enables me to develop good work relationships with my classmates	2.00	1.37	2.27	1.45	2.16	1.41
A smartphone/cell phone/PC enables me to identify with the class	2.00	1.45	2.08	1.44	2.04	1.43
I feel comfortable with a smartphone/cell phone/PC	2.58	1.57	2.65	1.76	2.62	1.67
A smartphone/cell phone/PC allows for non-task-related conversations	2.26	1.52	2.73	1.68	2.53	1.62
A smartphone/cell phone/PC enables me to make close friendships with my classmates	2.16	1.38	2.46	1.44	2.33	1.41

Overall the scores on the separate items are too low for us to conclude that participants expect technology to afford and enhance their performance. They are however indicative and describe the differences between male and female participants. Looking at the scores, we considered it relevant to take a closer look at items 84: "A smartphone/cellphone/PC enables us to develop into a successfully-performing class" and 88: "A smartphone/cellphone/PC allows for non-task-related conversations". An independent-samples t-test for item 84 indicated that scores were lower for women ((M = 1.63, SD = 1.16) than for men (M = 2.12, SD = 1.37), t(43) = 1.25, p = .219, d = -0.386, yet not significant. Levene's test indicated equal variances (F = 1.13, p = .293). An independent-samples t-test for item 88 indicated that scores were lower for women (M = 2.26, SD = 1.52) than for men (M =2.73, SD = 1.68), t(43) = .96, p = .344, d = -0.293, yet not significant. Levene's test indicated equal variances (F = .71, p = .403).

5.3.3.2 Social presence.

For reporting purposes, we translated the Dutch version of the statements of the scale 'social presence' into English. On the social presence scale the participants scored also low (M = 11.38, SD = 6.02). An independent-samples t-test indicated that scores were lower for women (M = 11.42, SD = 6.63) than for men (M = 11.32, SD = 5.25), t(43) = .06, p = .954, d = 0.016, yet not significant. Levene's test indicated equal variances (F = 2.32, p = .135). The items of the scale showed the following results:

Table 5.8 *At-risk students' scores on the social presence scale*

Social presence	F (n = 19)		M (n = 26)		Total (n = 45)	
Item	M	SD	M	SD	M	SD
When I am chatting 'live', I have my communication partner in my mind's eye	3.05	1.54	2.42	1.41	2.69	1.49
When I am not 'live'– texting or emailing - I also have my communication partner in my mind's eye	2.37	1.38	2.58	1.52	2.49	1.46
When I have 'live' contact via social media, I feel that I am dealing with very real persons and not with abstract anonymous persons	2.11	1.41	2.19	1.49	2.16	1.45
Even when I don't have 'live' contact via social media, I feel that I am dealing with very real persons and not with abstract anonymous persons	2.11	1.48	2.15	1.56	2.13	1.52
'Live' conversations/chats via social media can hardly be distinguished from face-to-face conversations	1.68	1.20	2.08	1.32	1.91	1.28

We found positive scores for items 'When I am chatting 'live', I have my communication partner in my mind's eye' (94), and 'When I am not 'live'– texting or emailing - I also have my communication partner in my mind's eye' (95) when looking for gender-related differences. Female participants scored higher on the item: 'When I am chatting 'live', I have my communication partner in my mind's eye' (M = 3.05, SD = 1.54); male

participants scored higher on the item: 'When I am not 'live'— texting or emailing - I also have my communication partner in my mind's eye' (*M* = 2.58, *SD* = 1.52).

What is interesting to notice is that female participants scored higher than male participants on visualizing their communication partner during *synchronous* online interaction, while male participants scored higher than female participants when visualizing their communication partner during *a-synchronous* online interactions. Both female and male participants scored low on '*distinguishing live online conversations from face-to-face conversations*'.

Female participants scored higher on visualizing their communication partner during synchronous online interaction *(M = 2.42, SD = 1.41)* and lower than male participants on distinguishing live online conversations from face-to-face conversations *(M = 1.68, SD = 1.20)*. The male participants scored high on visualizing their communication partner during a-synchronous online interaction *(M = 2.58, SD = 1.52)* and higher than female participants on distinguishing live online conversations from face-to-face conversations *(M = 2.08, SD = 1.32)*.

The most telling difference with regard to the mean scores between male and female participants concerns items 'When I am chatting 'live', I have my communication partner in my mind's eye' (94) and ''Live' conversations/chats via social media, can hardly be distinguished from face-to-face conversations' (98). Male participants scored lower on visualizing a communication partner during synchronous online interaction than female participants; female participants scored lower on distinguishing online conversations from face-to-face conversations. We found it relevant to take a closer look at item 94: "When I am chatting 'life', I have my communication partner in my mind's eye" and item 98: "Life' conversations/chats via social media, can hardly be distinguished from face-to-face conversations". An independent-samples t-test for item 94 indicated that scores were higher for women (*M* = 3.05, *SD* = 1.54) than for men (*M* = 2.42, *SD* = 1.42), $t(43)$ = 1.42, *p* = .164, *d* = -0.425, yet not significant. Levene's test indicated equal variances (*F* = .13, *p* = .718). An independent-samples t-test for item 98 indicated that scores were lower for women (*M* = 1.68, *SD* = 1.20) than for men (*M* =2.08, *SD* = 1.32), $t(43)$ = 1.02, *p* = .344, *d* = -0.317, yet not significant. Levene's test indicated equal variances (*F* = .58, *p* = .449).

Like with the sociability scale, the overall scores on the 'social-presence' scale were low and therefore do not allow us to conclude that participants expect technology to afford and enhance their performance by means of affordances that create a sound social space and foster social dynamics.

5.3.4   *The influence of social competencies on the perception of social affordances*

The fourth research question was: How do the social competencies of the at-risk students relate to their perception of social affordances, i.e. sociability and social

presence, with regard to social media use? With this question we wanted to get insight into the possible relationships between at-risk students' level of social competence and their perceptual performance with regard to social affordances. Before we answer that question, we will briefly report on the scores of the at-risk students on the variables social competence, sociability and social presence.

On the pupil-SCOL that ranges from 26 to 78, the participants' mean score is 61.5 (Table 5.9). For the norms, see Table 5.3 in the Materials section. The means *(M = 61.11 vs. M = 61.81)* suggested small differences in the scores between female and male participants. An independent-samples t-test indicated that scores were lower for women *(M = 61.81, SD = 7.11)* than for men (*M = 61.11, SD = 4.92*), *t*(43) = .37, *p = .713, d = 0.106,* yet not significant. Levene's test indicated equal variances (*F* = 1.21*, p = .278*).

After correction (see Table 5.3 in the Materials section), the total number of 'unsatisfactory' scores amounted to 16 (35.6%). A total of 64.4% (29 participants) achieved a 'satisfactory' score. Still the participants still scored an 'overall low' on the social-competencies scale. By 'overall low' we refer to the pupil-SCOL manual were it says that at least above 75% of a school or population should score satisfactory When less than 75% of the number of the participants score satisfactory, it is advised to give more attention to teaching social competencies.

Table 5.9 *Total pupil-SCOL scores of participants ordered by gender*

	N	M	SD	Unsatisfactory 26 - 57	Unsatisfactory (corr.) [a]	Satisfactory 58 – 78	Total satisfactory score (incl. correction)
Gender							
Female	19	61.11	7.11	5	5	14	
Male	26	61.81	4.92	6	5	20	
Age:							
16 - 18	31	61.06	6.48	8	8	22	
19 - 22	12	61.83	5.61	3	2	9	
23 - 25	1	71.00	*NaN*			2	
> = 26	1	62.00	*NaN*			1	
Total	45	61.51	6.22	11	10	34	29

[a] We performed the correction for the additional norm 3x ´almost never´ (see Table 5.3)

We initially asserted that the level of social competencies of our participants would correlate with their perception of social affordances. We divided our participants into two categorically different groups, A and B, based on the scores on the social competencies scale. The participants in group A *(n = 16)* had an unsatisfactory score on social competence ≤ 57 and in group B *(n = 29)* had a satisfactory score of ≥ 58. We then used a Mann-Whitney U test to compare the mean ranks of these two groups for the dependent variables sociability and social presence. From this comparison, it can be

concluded that the mean ranks for the variable sociability were not statistically significant (U = 180.5, z= 1.21, p = .226) and it can also be concluded that the variance of mean ranks for the variable social presence were not statistically significant either (U = 198.5, z = 0.78, p = .435)

5.4   CONCLUSIONS AND DISCUSSION

Our first question revealed that most at-risk students do have private access to technology, varying from laptop/PC/tables to mobile devices. The participants show no frequencies in use or particular behavioral patterns that are out of the ordinary when compared with Dutch low educated Internet users in general (CBS, 2015). Our results roughly correspond with data from Statistics Netherlands (CBS, 2015) indicating that on a national scale, lower educated who have access to Internet mostly use laptops (77%), followed by PC's (74%) and tablets (63%). Of Dutch lower educated Internet users, in general 81% use the Internet on a daily basis, 70% use WhatsApp and Twitter and 65% use Facebook; only 8% use LinkedIn (CBS, 2015)

It seems that male participants use their smartphone/cell phone for almost the same purposes as their PC/laptop/tablet, whereas female participants show a clear difference in use. This difference in use seems to be related to the synchronicity and asynchronicity of applications. The male respondents seem to be less involved in online social interaction with their mobile devices as they prefer gaming, looking up information and viewing movies online, that is applications that are dominantly a-synchronous. Their preferences do not differ in relation to the type of device, that is whether is a mobile device that one can carry along all day or not. All female participants indicate owning a mobile device. They seem be more into social interaction, as they prefer texting, viewing/editing photos and keeping in touch with friends, that is applications that are dominantly synchronous. Although we did not ask about the type of photos that were viewed and edited, it may very well be that our respondents mainly view and edit photos related to their use of social network sites. So that would mean they would regularly view photos made and posted by others and also regularly edit their own photos, like their profile photos. The gender related differences in preferences (frequency in use and behavioral patterns) suggested by the use of devices and types of applications that especially support online social interaction, is an aspect we also encountered in the results relating to our third question.

Answering our second question revealed that 'collaborative learning' seems to be favored by the male participants. As well, we found that participants in general do not want traditional pedagogical practices to be substituted by online lessons, nor do they want modules and online interaction with teachers to become the centerpiece of technology-mediated learning. As our first question revealed, looking up information is one of the more important uses of technology, but this only relates to the use of

PC/laptop/tablet among female participants. This means that introducing mobile technology in education and using it also for looking up information in educational contexts needs closer consideration. Recent research by PEW Internet has found that children who have access to the Internet but only by means of mobile devices have more difficulty in school related activities, like homework, than children who also have regular broadband access on a PC at home. So it is unwise to generalize data on Internet access and ownership of devices in relation to school related innovation, like the use of social media for learning activities. The fact that mobile technology may not provide the same educational functionality as traditional 'desktop' technology, substantiates the caution that should be exercised when the possibilities of mobile technology are explored in an attempt to connect education with the life world of the student.

Next to the substitution of traditional pedagogical practices, the participants also do not prefer any technological augmentation of the classroom in terms of interaction with the teacher outside of the classroom. They instead prefer the exploration of new possibilities and having more access to online services and information. This indicates that the participants are positive about the use of mobile technology in education but do not expect it to function as a means to substitute or augment traditional pedagogy. Finally, as the participants rated the quality of their teachers' ICT-skills, we found significant gender related differences between the participants. This difference may point to the circumstance that teachers have yet to learn how to teach with ICT. Although the Dutch 'Vier in balans' monitor (Ten Brummelhuis, Kramer, Post, & Zintel, 2015) refers to the increase of technology use in education and a certain degree of proficiency, Dutch teachers themselves indicate they still have to learn how to teach with ICT (Van der Boom & Stuivenberg, 2014). The significant difference in response may also point to the type of activities teachers deploy when using technology in the class room. Many Dutch teachers still prefer to use learning technologies to support traditional classical instruction, that is "presenting information through direct class instruction" and "reinforcing learning of skills through repetition of examples" (Van der Boom & Stuivenberg, 2014: 15). If this is also the case with our participants, this may explain why female participants, who favor the use of technology for online social interaction, rate their teachers' ICT-skills lower than our male participants.

Our third question revealed that female participants seem more positive about 'comforting' affordances, suggesting a preference for intimacy, whereas male participants seem more positive about informational affordances. These results are in line with the results relating to our first two questions. This also corroborates findings that there are considerable gender effects between perceptual performance and interpersonal experiences, especially with regard to feminine preferences relating to 'accepting comfort', 'knowing feelings' and 'giving comfort' (Lee, 2005: 52).

Both male and female participants show a medium to low score with regard to the social affordances sociability and social presence. Items with regard to social

affordances that seem most important for enhancing social dynamics from a collaborative-learning perspective, scored low in this study. The participants expected little from technology with regard to constructing a collective identity, developing good work relationships, and developing into a successfully-performing class. The male participants gave slightly higher scores on items like: constructing a collective identity, developing good work relationships, and developing into a successfully-performing class; these items concern social dynamics and are related to a cooperative goal structure. However, these small differences were not significant.

Negative results on the sociability scale concerning group identity – that is, identification with the class – are interesting because conforming to group identity in online environments is not uncommon (Strano, 2008). Group identity is an important element of social dynamics, as this sense of identity contributes to the feeling of belonging to a particular online community (Strano, 2008).

We found gender related different scores regarding group performance with regard to the sociability scale, and especially the items 84 and 85: 'A smartphone/cellphone/PC enables us to develop into a successfully-performing class' and 'A smartphone/cell phone/PC enables me to develop good work relationships with my classmates'. These differences may suggest a correlation of these items with the scores we found in the social-competence scale. Items on the social competence scale indicated that the male participants were more inclined to share task-related information than the female participants. Male participants show a stronger tendency towards enhancing group performance, enhance the relationship within the group and they show a stronger preference for collaborative learning. This is substantiated by male participants' responses to items from the social-competence scale concerning the willingness to express and share task-related information. These findings differ from those concerning the female participants. Female participants do not show the same preference for task-related aspects and collaborative learning, mediated by technology. They show a stronger tendency towards sharing non-task related, social information.

It is interesting to note that differences between female and male participants' scores with regard to visualizing a communication partner during interaction seem to relate to aspects of synchronicity and asynchronicity of the technology involved. The low score of female and male participants on 'distinguishing live online conversations from face-to-face conversations' may indicate that our participants are used to online conversations to the degree that they experience no noticeable differences between online and offline conversations. This may indicate that they do not miss social cues that normally, in offline encounters, are important stimuli for interaction (Schouten, Valkenburg, & Peter, 2007). It is also possible that our participants already experience difficulty detecting and processing visual stimuli in the offline world and therefore do not feel hindered by the apparent lack of visual cues during online interactions. As far as these low scores can be further explored by using totally contradictory assumptions as a starting point, we think it is important to further explore how at-risk students visualize

their communication partner during online interactions, what the relation of affect may be with interpersonal experiences and how this information is processed and used by at-risk students during their interactions.

It could be assumed that female users are more sensitive to emotional cues, that is, are more emotionally transparent (Lee, 2005), and have more difficulty or are less inclined in visualizing their communication partner during a-synchronous contact. They may experience the lack of visual cues different from male participants. Male participants are more sensitive to informational cues and have more difficulty or are less inclined in visualizing their communication partner during synchronous contact. The relation between gender related sensitivities and perceived affordances and the difference between female and male participants' perception with regard to visualization could be explained by the fact that (a) it takes longer to process informational cues than emotional cues in direct, synchronous contact and (b) indirect, a-synchronous contact provides more informational than emotional cues.

In conclusion we can say that our fourth question has to be answered negatively; there is no significant relation between the level of social competencies and the perception of social affordances. We did however encounter certain aspects of relations between elements of social competence and the perception of social affordances. It could be assumed that the type of information that is to be shared – task-related versus non-task related – matters when interpreting the responses. Female participants seem to indicate that sharing information should mainly benefit their personal well-being, because to them technology affords sharing information about emotional experiences, creating a feeling of comfort and decreasing loneliness. They see less gain in task related information exchange.

5.4.1   Limitations

More than 90% of learning is considered informal in nature (Fouarge, Grip, & Nelen, 2009). The rise of social network sites has increased the opportunities for informal learning considerably. We asserted that informal learning in online contexts relies on the adequate perception of social affordances that enhance the social dynamics in collaborative learning processes. We argued that the low educated at-risk students who have low levels of social competencies do not benefit from these learning opportunities, because students in this category would have trouble perceiving and judging social affordances. Our study did not substantiate these initial assumptions.

The scores we found regarding social affordances were very low. These low scores, combined with participants' expectations regarding technology-use in education gave no conclusive answer about whether introducing educational technology in education for at-risk youth would improve the group dynamics and be useful and effective or not. The findings do however substantiate that at-risk students do not favor the use of social media as a technological substitute for traditional education, with the exception of

digital exams. Even the use of technology to support or augment a need supportive teaching style should be considered with caution when we look at the participants' negative scores on the topic of increasing the interaction with teachers using technology, whether that was in or outside of class (Table 5.6).

When we look at our participants' expectations with regard to the use of ICT in education and differences between male and female participants (Table 5.6), we believe it is worthwhile to study whether expectations or preferences of the low educated with regard to technology use in education influence their perception of social affordances.

5.4.2   *Who benefits?*

A reason for students not to be interested or motivated in contributing to group dynamics as a precursor for group performance may be that they are not used to this kind of teaching strategy. Teachers working with at-risk students indicate they mostly work with 'discovery learning', that is individual learning activities that require students to seek and find the learning content partly by themselves, thereby fostering students' curiosity, self-reliance and motivation. Another reason may be that students do not value group performance. Teachers indicate that the education system in the Netherlands strongly relies on high stakes testing and grades (Van der Veen, Dikkers, Weijers, Hornstra, & Peetsma, 2014). This kind of system is focussed on the performance of individual students, usually compares the individual grades to foster competitiveness and predominantly serves high achievers. Group performance is not an obvious part of a system that thrives on competitive attitudes, so why should low educated at-risk students value group dynamics. Although interaction and dialogue are seen as highly valuable for cognitive processes and deep learning, at-risk students will hardly grasp the value of social interaction and group dynamics in a system that aims for individual performance and promotes interpersonal competitiveness.

Extrapolating findings from the field of CSCL may be too simplistic, as is also suggested by Roschelle (2003). CSCL research started from asynchronous distributed collaborative learning. Researchers and teachers should realize that there is a difference between asynchronous distributed learning and a blended approach in which face to face classroom interaction is alternated with virtual interaction. This means that normal social participation in classroom and technologically mediated informatic participation are coupled. A blended approach may result in the simultaneous occurrence in time and space of two distinct kinds of participation: the normal social participation and the new informatic participation among connected devices (Roschelle, 2003). When that is the case "An informatic overlay can break the classroom social patterns, such as when students are reading email instead of participating in a classroom discussion" (Roschelle, 2003: 262). This break up of social patterns by mobile technology, for example induced by 'absent presence' (Gergen, 2002), can dramatically change the

socio-physical context of face-to-face communication, reduce the level of empathy and impair the overall quality of interaction (Misra, Cheng, Genevie, & Yuan, 2016).

As we know, perceptual learning requires prior experiences and knowledge (Gregory, 1974). Prior experience or practice can however be negative (Schouwenburg & Zuylen, 2004) and for that reason hinder perception and processing of technology mediated information (Robinson, 2009). Students not only have to deal with the complex technological relationship between their learning process and environmental (technological) support (Lowyck, 2008) and the possible mental frictions these relationships can cause (Vanthournout et al., 2009). They also have to deal with their own insecurities and deal with social expectations of their environment (boyd, 2014; chapter 3) or the social rejection or adultism by their environment (Livingstone, Bober, & Helsper, 2005; Kenway & Bullen, 2008).

5.4.3   Balancing the design

Interaction among students does not occur naturally (Kreijns et al., 2002). In order to avoid the pitfall of overestimating the supposed naturalness of social interaction, CSCL designers are attentive to designing affordances that invite desirable social interaction (Kreijns et al., 2002). This attentiveness of the designer raises the question whose desires or needs for interaction are served with the designed affordances. Especially when we consider the supportive nature and subservient function of these affordances in environments that are focused on results, desired and established by institutions. The desired results or learning outcomes of intentionally designed environments are often extrinsically established. It is characteristic of educational environments that the basic needs of students are thwarted or neglected (Szalma, 2009). In order to establish a motivational connection with a task through affordances, the design of both simple and complex technologies can, and should, include the evaluation of motivational characteristics of the task (Szalma, 2014). A closer look at motivational usability and it's relation with self-determination theory reveals that motivation and the resulting performance in work or school related environments may benefit from a eudaimonic design approach in which personal sensations, like pleasure, are not disqualified as hedonistic and therefore trivial (Szalma, 2014). Play and leisure activities are familiar Internet related activities for lower educated Internet users (CBS, 2015) and leisure activities may very well be used to provide social support (Swickert, Hittner, Harris, & Herring, 2002). Attempts to engage youth in online social interaction should not too quickly be abandoned when these youth appear to be only interested in play and leisure activities (Boonaert & Vettenburg, 2011), as is often the case for lower educated (CBS, 2015). These should instead be seen as a stepping stone, starting with a regime of 'familiarity' that empowers agency (Thévenot, 2001) instead of friction, ambiguity and anxiousness (chapter 3) caused by critical encounters of the regimes of familiarity and regular (conventional) action. Instead of rejecting or criticizing modern youth's new

habitus, these new practices should be used to inform research and education and foster understanding.

A balanced design approach should guarantee that different layers of interaction and streams of information are not conflictive or counterproductive. Distracting social media use can impair students' motivation and thereby negatively influence academic performance (Kirschner & Karpinski, 2010). Just as CSCL has advocated non-task related social affordances as being co-constitutive and therefore important for task-related performance, so may the advocacy of motivational affordances or motivational usability be of equal importance. Design principles that are conditional for motivational usability bring new insights to the design of learning environments and the way functional, task-related and outcome-oriented design should be balanced with motivational, student oriented design, that is the satisfaction of students' needs for autonomy, competence, and relatedness (Szalma, 2014). Working on students need for autonomy competence and relatedness is important because this also contributes to attainment of their future goals by means of lifelong learning. In informal learning environments teachers are not present and it are the affordances of the environment and the peers that influence the sense and quality of learner control, self-regulation and group learning.

Social technology is more than a simple carrier or conduit of interaction and meaning. It can be specifically used or appropriated to modulate, model or channel social behavior in specific ways (Derksen & Beaulieu, 2011; Mejias, 2007; Schäfer, 2008). Designers and teachers should be aware of the background, needs and interest of at-risk students and avoid to promote middle class values through the design of social affordances (Boonaert & Vettenburg, 2011). When designing learning environments and social affordances teachers should also be aware of their own bias with regard to middle class behavior (Calarco, 2016) as their beliefs may contribute negatively to drop out in vocational education (Van Houtte & Demanet, 2015). Given the emphasis on behavioral use patterns, teachers should ask themselves whether they should stay within those patterns. Jones et al. (2006) raised the question of 'ethics' in CSCL with regard to the function of design and especially the intentions of the designer. They argue that the design activity requires a relational, indirect and participatory approach. The approach should be relational because affordances are not fixed characteristics of a designed artefact but they are subject of users' perception and appropriation. The approach should be indirect because a designer has limited influence on the user and the actual use of the designed artefact, i.e. he designs 'for learning'. The approach should be participatory because involvement of the user(s) is necessary to effectuate the desired design, because ultimately the user is the beneficiary.

5.4.4   Practical implications

Our results indicate that caution is necessary when schools and teachers consider the implementation of modern technology, and especially social media and mobile devices. The reasons for this caution are diverse.

First we found that at-risk students' expectations about the function of technology will have to be further explored by teachers. The expectations we encountered suggest that students are mainly interested in uses and services that provide additional value and are not limited to substitution or augmentation of traditional pedagogical practices. Teachers in general are not always ready for teaching with ICT (Van den Boom & Stuivenberg, 2014), are in the process of exploring useful pedagogical venues (see chapter 4) or use it in ways that do not fulfill the expectations and promises of technology (Henderson et al., 2014).

Second, it is important to keep in mind that the attitude of students towards the use of technology in and outside the class room is an important factor that relates to their motivation. Motivation in turn is influenced by experiences from the past. Not all students feel the same and expect the same with regard to the use of social media in school. Teachers in general are inclined to believe that the use of ICT positively influences the attitude, that is the motivation and attention of students (Scheuermann & Pedró, 2010). Mobile devices have engaged the imagination of educators as such mobile devices are "a significant part of the grain of daily life" (Pettit & Kukulska-Hulme, 2007) or appeal for more practical reasons like the portability, low cost and communications features. A connection with students' life world and their needs is often seen as a mandatory step in education reform towards responsive yet robust pedagogical practice. Responsive pedagogical practice entails personalization of learning activities (Järvela, 2006) combined with the distribution and connection of these learning activities across sites and domains (Miller, Shapiro, & Hilding-Hamann, 2008). This responsive practice also entails fostering learning capacity (Järvela, 2006), that is learner control, self-regulation, and group learning (Lowyck, 2008), in order to prepare students for lifelong learning in environments in which their learning will be mainly supported by technology (Redecker, Leis, Leendertse, Punie, Gijsbers, Kirschner, ... & Hoogveld, 2012).

Third, an affective connection to learners' life worlds and personal needs does not merely consist of adopting technologies, that is devices and media favored by students in order to motivate them and engage them in learning activities. A life world connection is required in order to prepare students for a fast changing, demanding world in which they have to participate in new types of socially organized activities and new learning environments in school and the workplace often based on collaborative and shared expertise (Järvela, 2006). Mobile technology and social media enable a transition from the occasional pedagogical substitution to frequent and integral use of portable computational technology (Roschelle, 2003). Technologies favored by

students, like Facebook, may however just as well prove counterproductive when implemented for the wrong reasons or in the wrong way (Kirschner & Karpinski, 2010) and not appropriated to patterns of usage that are more effective and efficient in education (Misra, Cheng, Genevie, & Yuan, 2016).

Chapter 6

Conclusions and discussion

This concluding chapter starts with an introduction followed by a summary of findings of the four sub-studies. After that, recommendations for practice and future research are made. A reflection on the methodology is reason for noting the limitations of our sub-studies. The chapter concludes with a discussion and general conclusion. Based on the findings of the sub-studies, a general conclusion is presented.

6.1   INTRODUCTION

Modern youth's social media use has gained considerable attention in the research literature within a diversity of fields, ranging from sociology and youth studies, philosophy, political science, behavioral science, medicine, media studies, science and technology, to educational research and labor studies. If we consider media and technology inherently human (Papacharissi, 2015; Derksen & Beaulieu, 2011) then it is no wonder that "No part of the world, no human activity, is untouched by the new media." (Lievrouw & Livingstone, 2009: 1). But there is still a lot to learn and understand about underlying personal, social and cultural factors that influence the use and non-use of social media and social networks by youth (Kellner, Massou, & Morelli, 2010).

What we have witnessed over time is that modern technology has infiltrated every domain (daily life, school, work) and brought about considerable change in the way people interact, communicate, socialize, work and play. What we have also come to learn and understand is that not all users are the same (Van den Beemt, Akkerman, & Simons, 2011), not all users show the same interests and needs (Ito et al., 2008) and not all users show the same level of proficiency (Van Dijk & Van Deursen, 2014). These differences may seem obvious but they can produce disparities and inequalities.

6.2   SUMMARY OF MAIN FINDINGS

6.2.1   Chapter 2 (study 1)

In our study on the concept 'media literacy', we were mainly interested in research tying media literacy to the emancipation or empowerment of the low educated and low skilled, that is: disadvantaged youth and young adults with a low degree social and economic participation. It is commonly accepted, however, that media literacy is a construct that does not mean the same in every context or for every user (Council for Culture, 2005). It is therefore expedient to distinguish between different literacies, because they fulfill different purposes in different contexts (Buckingham, 2013; Street, 2003). And it is useful to define the properties and purposes of these literacies, that is: the combination of understanding, meaning and context, within a broader framework (Bawden, 2001). Literacy practices that have the purpose or potential of enhancing the lives of disadvantaged youth and young adults have not been covered in research. We found no peer-reviewed articles covering this particular topic when searching the ERIC database. In addition, concepts around literacy are often used synonymously and therefore make it difficult to search databases in a conclusive way.

Research on media literacy regularly limits itself to age-related developmental issues and questions regarding youth in general. Most questions regard the effects of social

media and networks on identity development and socialization from a developmental (Paus-Hasebrink et al., 2009), educational (Van Deursen & Van Dijk, 2014; Van Dijk, 2009) or normative perspective (Kenway & Bullen, 2008). Developmental topics, which are essential in understanding the transformative years of adults and the relationship between critical transitions and lifelong learning (Heckhausen, Wrosch, & Schulz, 2010), are not covered. Literacy research can be differently framed, depending on whether media literacy is considered an individual or a societal prerequisite (Livingstone, 2012) and whether its gains are associated with benefits either for an individual or for the economy or society (Markauskaite, 2006). These different rationales have led to the ongoing and unsettled debate about an autonomous, 'real' media literacy model versus an ideological, 'situated' media literacies model (Collins & Blot, 2003). Literacy research can also be differently approached, depending on whether media literacy is seen as related to a continuous assimilation of media-related technologies or the discontinuous disruption by media-related technologies (Livingstone, Van Couvering, & Thumim, 2005). These conceptualizations have led to the ongoing and unsettled debate about whether media-related technologies require an extension of the old skills with new elements as part of a converging media concept (Livingstone, Van Couvering, & Thumim, 2005) or whether media-related technologies necessitate a reframing of 'new' literacies or 'new' skills resulting in a diverging media concept (Van Dijk & Van Deursen, 2010).

We also found that not all individuals are equally inclined and willing to face the new challenges of becoming "technologically literate" or "media savvy" and take responsibility for their learning and self-realization. We argue that attitude and motivation are the critical points of engagement that should be addressed by research and educational interventions aiming at enhancing the participation of the low skilled or low educated through a comprehensive media literacy program. Therefore it also seems important to consider and question whether individuals' motives correspond to the demands of being active, engaged and responsible for their own learning.

6.2.2   Chapter 3 (study 2)

In our second study on the attitudes of at-risk youth, that is potential ESL, we were mainly interested in their attitudes towards presenting themselves online and participating in online networks. Active participation in online networks, that is the deliberate and strategic use of social media and social networks, contributes positively to conditions and opportunities that determine or enhance economic and social mobility and improvement This study presents the results regarding low-educated ESL's attitudes towards the use of social media and social networks. ESL face social exclusion such as 'no or low social participation' and ' limited or no social networks' if they do not (Eimers & Verhoef, 2004). Online presentation and online participation may positively influence and expand one's individualized system social capital in terms of relationships

(Stauber & Walther, 2006) and increase one's social capital in terms of access to online resources (Zinnbauer, 2007). This is because these modes of participation influence the development of relations and social ties (Wittel, 2001; Wellman, 2001), contribute to the formation of identity and friendships (Valkenburg & Peter, 2011) and represent the first tentative steps taken by youth in cultural and social participation (Jenkins, 2006).

In the research, we used focus groups to explore the interests, needs and related attitudes of potential ESL with regard to social media use in relation to economic and social participation. We found that rather straightforward attitudes towards self-presentation and explicit participation in networks existed, i.e. participants either embraced, accepted or rejected the opportunities. The participants predominantly reported medium-related motives or opportunities regarding social media use, like the ease of making and maintaining contact with familiar friends and the fact that the costs are low. They were well aware of online risks, but were not familiar with social and economic opportunities afforded by social media and social networks. Some even considered the use of social media for professional purposes, like maintaining contact as inappropriate.

We found both positive and negative attitudes that pointed to social relevance and social returns. These attitudes were more personal in nature and pointed to either a perceived lack of social relevance and returns, or the opposite: to an awareness of social relevance (e.g. keeping in touch with friends and relatives) and social returns.

The neutral attitudes displayed by participants showed a distant stance where participants seemed to objectify social media use; it looked as if they took a 'cybernetics' perspective on technology in terms of 'the purpose of social media is what it does'. Some participants experienced technology as an obvious and unobtrusive aspect of daily life, but with it having little or no direct impact on the social intricacies of interpersonal relationships. The participants with a neutral attitude displayed a one-dimensional perception of media technology, considering it a 'fact of life'. They showed little reflectiveness.

We found possible conflicting attitudes when participants engaged online with friends but still considered social media 'dangerous', 'unwise' or 'not done' because their parents had strictly forbidden it. These conflicts not only point to poor mediation strategies but also to disapproval of media-related behavior, often as a result of their problem history. Participants had basically forfeited the social acceptance to use social media by violating the trust and losing the respect of those around them. Especially hedonic goals or the leisure use of social media is somehow repudiated by social agents in a disciplining manner.

The participants' attitudes were not oriented towards the future in terms of chances or opportunities resulting from social media use. This lack of future orientation can be seen as a kind of metacognitive threshold, holding these youth back from pro-actively exploring or creating opportunities and influencing or overcoming structural issues and problems. The special educational tracks, although initiated to help the participants 'get

back on track', did not involve socializing in both off-line and online environments and building social capital. The tracks mainly focused on fostering self-sufficiency, as these youth were meant to reenter and persevere in regular vocational tracks on their route towards employment.

Findings of our research resonated with research findings on existing employment-activation policies and educational pathways towards economic participation (Wildemeersch et al., 2000). Wildemeersch found that Education, Training and Guidance should broaden its view beyond a narrow, employability orientation on instrumental and vocational competencies. They also correspond with research on leveraging the digital-opportunity structure (Huysmans & De Haan, 2010; Mariën & Van Audenhove, 2010) by shifting the focus from removing barriers, mostly concerning access or skills, towards individuals' perceptions of value instead (Verdegem & Verhoest, 2009). Verdegem and Verhoest argue that the acceptance of social media use, that is the attitudes and motivation concerning IC adoption/usage, depends on the possibility of appropriating ICT in relation to an individual's needs and interests and available resources.

6.2.3   Chapter 4 (study 3)

In our third study, we explored teachers' beliefs in relation to the affective strategy most teachers prefer when working with at-risk youth (Lesterhuis, 2010; Groenenberg & Hermanussen, 2012) and their beliefs concerning the use of modern technology, that is, social media, as part of their need supportive learning environment. An affective strategy mainly builds upon the teacher-student relationship and involves factors such as trust and mutual respect.

We used a combination of qualitative and quantitative techniques to explore teachers' beliefs. We used a survey for a group of teachers (n=42) working at a regional Dutch school for vocational education who work with at-risk students at VET level 1 (ISCED level 2). Of these 42 teachers, we interviewed and observed a group of teachers (n=11) who were involved in an innovation project and set out to explore, discuss and possibly implement social media in their learning environment. The survey revealed that the teachers in general are familiar with social media at a personal level but are still unfamiliar with its pedagogical uses. What was interesting in the fourth study was the gender-related differences that appeared with regard to the preference for certain apps. Both male and female respondents preferred the use of YouTube, which is a one-way, a-synchronous tool that is perfectly suitable for substitution purposes, like distributing recorded lessons or additional course materials, like video, providing extensive explanation of course subjects. Apart from YouTube, female respondents seemed more sensitive to two-way, synchronous social-media tools that deliver visual cues (e.g. Skype). Male respondents on the other hand were more sensitive to two-way, a-synchronous social-media tools that delivered informational cues (e.g. WhatsApp and

Twitter). This difference in preference strongly resembled the gender-related differences we encountered in our fourth study on students. The teachers we observed during project meetings (n=11) were more familiar with social media than most other colleagues, as approximately 80% of them use social media on a daily basis, opposed to 50% of their teaching colleagues *(n = 42)*.

The teachers in the project initially discussed second-order issues like administrative concerns, for instance: creating and distributing accounts and changing settings, and issues regarding safety, privacy and security with regard to their students. Their interest in safety, privacy and security is understandable if one considers their affective strategy: teachers do not want to jeopardize the relationship with their students, which is based on trust and mutual respect. However, we found that the teachers broadened their perspective on social media from this rather narrow scope toward questioning their own and their students' pedagogical wants and needs after seeing a presentation by four students illustrating the students' experiences with technology in learning activities. This corroborates with findings that teachers' beliefs tend to change when teachers witness actual practices and learn of the impacts of these practices on students' learning (Ertmer & Ottenbreit-Leftwich, 2010). The survey revealed that teachers are also strongly influenced by the opinions and expectations of their team manager and colleagues from their own and other institutions, indicating that subjective norms play a role of importance in influencing teachers' attitudes.

We also explored the process of collective decision making on pedagogical practices with a paper based questionnaire administered directly after project meetings. Teachers' personal beliefs can be very idiosyncratic (Ertmer, 2010), whereas collective pedagogical decisions on technology are best guided by a certain degree of epistemological consistency (Suthers, 2006). This indicates that collective decision making on pedagogical practice is not self-evident. The project might have been more productive though, if initial ambitions had been higher, because research shows higher ambitions contribute to better outcomes (Wopereis et al., 2005). The ambitions however, were deliberately attenuated by the team managers. Although the observed teachers reported a lack of 'connection with daily practice', due to a lack of concrete, practical outcomes, they did report a high degree of mutual respect. The lack of tangible results did not influence the mutual respect. This mutual respect may have even been a more important outcome in the long run when we look at collective decision making. The project meetings proved effective because during the final stages, sound collective decisions were made about concrete activities and outputs for the following year. The teachers involved in the project evaluated the project as most positive.

6.2.4   Chapter 5 (study 4)

In our fourth study we explored the possible relationship between and influence of at-risk students' levels of social competence and their perception of social affordances. Social affordances are important for the socio-psychological dimensions of task accomplishment in online, distributed learning environments (Kreijns et al., 2002), because they foster trust, a sense of community and the development of interpersonal relationships (Kreijns et al., 2013).

We used a survey with descriptive and exploratory categories. The descriptive categories covered the ownership and use of different types devices, the use of different types of social network sites, expectations about educational use of technology and the quality of their teachers' ICT skills. The exploratory categories covered three scales: social competence, sociability and social presence. We first determined whether respondents (n = 45) owned and used a device (laptop/PC/tablet or smartphone/cell phone) and found that most non-users (n = 6) who did not own and subsequently did not use either of the devices listed, were male respondents. PC/laptop/tablets were mostly for 'e-mailing' (74%), 'viewing movies' (68%) and 'looking up information' (66%); hand held devices (smartphone/cell phone) mostly for 'texting' (82%), 'keeping in touch with friends' (67%) and 'chatting' (67%). We found gender related differences in use patterns related to device types. Female respondents used their handheld devices for different things, whereas male respondents showed less device specific differences in use patterns. These differences were not significant. When asked about their teachers' ICT-skills, the students gave their teachers an overall positive score (M =7.29, SD = 1.82). An independent-samples t-test indicated that scores were significantly lower for women (M = 6.53, SD = 1.68) than for men (M = 7.85, SD = 1.74), t(43) = 2.55, p = .014, d = 0.771. Levene's test indicated equal variances (F = 0.1, p = .929). This difference may point to the circumstance that teachers have yet to learn how to teach with ICT. Although the Dutch 'Vier in balans' monitor (Ten Brummelhuis, Kramer, Post, & Zintel, 2015) refers to the increase of technology use in education and a certain degree of proficiency, Dutch teachers themselves indicate they still have to learn how to teach with ICT (Van der Boom & Stuivenberg, 2014). First attempts by Voogt et al. (2013, 2015) to get a more realistic impression with regard to Dutch teachers' didactical ICT-skills showed a more nuanced although less positive result. There is little if no research that uses students' experiences, expectations and/or opinions as base for analysis of teachers' didactical ICT-skills. Our results should therefore be treated with caution because bias is possible and students opinions about teachers' quality of ICT-skills are just as debatable as students self-report with regard to their own ICT-skills.

The respondents' (n = 45) preferred the use of social media in education for its modernizing possibilities, like 'exploring new possibilities like using apps, e-readers, Twitter' (33%) and 'exploring new possibilities like using apps, e-readers, Twitter and Facebook' (29%). A substitution or augmentation of traditional educational practices,

like 'providing more possibilities of interacting with the teacher during class' (16%) or 'providing more possibilities of interacting with the teacher outside of class' (9%), clearly scored lower. What did score high, and corroborates with the assumption that respondents positively associate new, media related possibilities for communication and interaction with educational practice, was 'collaborative learning' (33%). The most important conclusions we drew from these scores, is that the respondents preferred the use of social media in education as a way of exploring online services and online applications for collaborative-learning purposes.

The modest and dominantly low scores on both scales underscore that the respondents do not relate social affordances to trust, a sense of community and interpersonal relationships, in other words, features that contribute to the sociability of the environment and group dynamics. Our study did reveal that female respondents are more positive about emotionally-comforting affordances whereas male respondents are more positive about communicative affordances. This corroborates findings that there are considerable gender effects between perceptual performance and interpersonal experience, especially with regard to 'accepting comfort', 'knowing feelings' and 'giving comfort' (Lee, 2005: 52). With regard to the gender related differences in the use of social network sites, female respondents seem to prefer sites that provide synchronicity whereas male respondents prefer sites that provide asynchronicity.

These scores on the sociability and social-presence scale could however not be related to our respondents levels of social competencies when we performed a Mann-Whitney U test.

6.3   RECOMMENDATIONS

6.3.1   For future research

Research on media literacy can be roughly divided in two categories. There is research that studies the prerequisites for social and economic participation in search of 'the right set of skills' and is focussed on the social and economic responsibilities and the aims of politics and institutions. And there is research that studies literacies 'in situ' in search of the dynamic interplay and balance between capabilities and affordances and the underlying mechanisms and governing political-ideological models that determine the relationships between them.

When a single definition must cover highly diverse competencies and skills, the development of universal, platform-neutral, generalizable criteria by which to assess media adoption, interpretation and use should be seriously considered (Livingstone, Papaioannou, Grandío Pérez, & Wijnen, 2012). The research community could not only benefit from a clear and consistent framework, relating to both purposes and

properties (Celot, 2014), but decision-makers could also benefit from a focus on issues critical to communities (Livingstone, Bulger, & Zaborowkski, 2013).

We found in our first study that non-use of social media and social networks is a complex, socio-cultural problem that should not be solely treated in terms of access or skills (Kellner, Massou, & Morelli, 2010). This finding corroborates with experts' recommendations to "draw a clear line between digital competence and personal preference, choice, or desire to use particular digital technologies." (Janssen, Stoyanov, Ferrari, Punie, Pannekeet, & Sloep, 2013: 479). It should be entirely up to an individual user whether to use technology or not, or stop using it. In line with this recommendation, experts identified 'attitudes' as an important aspect of digital competence. It is, however, unacceptable that users are not properly informed about possibilities and opportunities before they make their decisions about use or non-use (Janssen et al., 2013). It is also not wise to consider users with low levels of education as 'not attracted' to the use of Internet (Van Dijk, 2008), as their self-reports are not based on sufficient knowledge of ICT tools (Kellner et al., 2010). It is clear their answers and attitudes are frequently biased towards non-use due to lack of information and/or knowledge (Meelissen et al., 2014; Van Deursen & Van Dijk, 2012). Future research could focus on the convergence of media education and digital skills from a more critical, economic and social perspective on participatory media activities like public expression and ethical reflections (Kotilainen & Suoninen, 2013). Educational programs should be developed beyond utilitarian vocational aims and treating media literacy from a need to know basis. All learners should be prepared for a future in which literacy practices contribute to social and economic development and change. Those who are no longer in school and who face obsolescence or exclusion should be enabled and challenged to learn on their own accord and on their own terms but never at their own expense.

Findings from our second study underscore the importance of taking into account attitudinal factors concerning Internet use and deliberate non-use (Mariën & Van Audenhove, 2010) along with personal backgrounds, interests, capabilities and socially-defined preconditions (Robinson, 2009), in particular when designing policies and devising practices to stop the digital divide from widening (De Haan & Adrichem, 2010; Verdegem, 2011). We support the experts' recommendation to include attitudes as an integral part of the concept digital competence (Janssen et al., 2013). We propose that future research on students' attitudes be intensified and not with regards to beliefs about or acceptance of technology, but rather that more specific attention be paid to the needs- and values-based exploration of preferences (Kellner et al., 2010; Verdegem & Verhoest, 2009).

It would also be advantageous to study how selective self-presentation or self-profiling in professional networks contributes to the strategic and beneficial use of online networks with regard to aspects of interactive employability and organizational viability. Low-skilled workers' self-profiling is hindered by conflicting preferences, i.e.

future orientation vs. preference for leisure (Fourge, Schils, & De Grip, 2013). Research on online self-presentation could also be related to findings from research on personality predictors for social-media usage, studied by Hughes, Rowe, Batey and Lee (2012). Considering preferences and traits of the low-educated as bottlenecks to sustained employability, we argue that attitude and motivation are the critical points of engagement that should be addressed by educational interventions.

It may be interesting and relevant to further investigate whether the differences we found in our third and fourth study regarding gender and scores on 'comforting' versus 'informative' affordances somehow relate to the differences in visualizing. That is, it could be assumed that female users are more sensitive to emotional cues at they are more emotionally transparent (Lee, 2005), have a greater need for social presence or salience and as a result have more difficulty in visualizing their communication partner during a-synchronous contact. Male respondents, however, are more sensitive to informational cues, have a greater need for informational availability and as a result have more difficulty in visualizing their communication partner during synchronous contact. The current use of the term visualizing is not conclusive enough about how these youth construct an image of a communication partner and what kind of information they use in constructing this image. The relationship between gender-related sensitivities and perceived affordances and the difference between female and male respondents' perception with regard to visualization could be explained by the fact that (a) it takes longer to process informational cues than emotional cues, that is nonverbal social cues through synchronous digital contact (Gilboa-Schechtman & Shachar-Lavie, 2013) (b) indirect, a-synchronous contact provides more informational than social cues (Schouten, 2007) and (c) female respondents have a greater need for emotional cues when visualizing (Fivush, Haden, & Reese, 2006). Future research could focus on the role of technology mediated intimacy, that is the degree of emotional intensity evoked by self-disclosure, personality, gender and perceptual performance.

6.3.2   For practice

Results from our study indicate that the use of modern technology or social media should not be taken lightly. One of the reasons to consider the use of social media from a pedagogical perspective is teachers' beliefs that this will strengthen the teacher-student relationship simply because social media is part of the life world of their students. Substitution, that is doing the same task with the use of technology, is usually a first, and too often the only (Blin & Munro, 2008; Henderson et al., 2015), tentative step in a process of reform and even as such promoted by certain models, like the SAMR-model where SAMR stands for substitution, augmentation, modification and redefinition. Yet at-risk students show preferences that oppose a technological substitution or augmentation of traditional pedagogical practices. These substitutions or augmentations of teacher-student interaction are considered an extension of school

time and an extension of learning practice into more personal, out-of-school contexts and are best skipped according to the at-risk students in our study. Also, not all teachers we observed and questioned are positive about the possibility of increasing the frequency teacher-student interactions beyond 'school time'. The teachers' preferences differ according to the type of track their students are in; they differ in relation to the students' needs that the teachers have identified.

As previously mentioned, there are also results in this study that point to gender-related differences in the perception and preference of technological affordances with a more affective nature. Gender related differences in the studies concerning students (chapter 5) and teachers (chapter 4), point to interesting preferences with regard to synchronous and a-synchronous tools, visualization, emotional needs and possible relations with social affordances. For teachers in vocational education serving at-risk students it is important to note that male students may be less inclined to express a need for support (Stauber & Walther, 2006) and therefore react different to social affordances.

We also found that too little attention is paid within the vocational programs and special tracks for at-risk students to the opportunities that social media and social networks might offer with regard to social and economic participation.

Observing teachers who worked together in this innovation project revealed that teachers need time to collectively get 'in touch' with the subject and establish a sense of focus without a predetermined agenda. The upside of this is that the exploration of possibilities and opportunities is genuinely explorative. The downside is that it takes time to overcome ambiguous and idiosyncratic goals (Elmore, 2002; Ertmer, 2010) in order to achieve mutual understanding, focus and an agreement on outcomes. Again, ambitions might have been set higher prior to the outset (Wopereis et al., 2005) but apart from getting results quicker, the approach we observed turned out to be valuable and sustainable in terms of building a learning community (Wenger, Trayner, De Laat, 2011). What may have 'added value' for this learning community in the future would be some expertise in critical self-reflection and professional support as the teachers involved in the project showed little professional reasoning skills (Voogt et al., 2015) and seemed to find it difficult to translate their beliefs and experiences into tangible pedagogical practices in a methodical way.

6.4   LIMITATIONS

The results of our first study were based on a search for relevant literature, using databases, indices like the h-index and Publish or Perish, a tool for retrieving and analyzing academic citations and calculating various statistical indices. The reliability of this approach is limited due to the quality of the databases, like Google Scholar, and a

tool like Publish or Perish that includes non-scientific content and provides limited quality control.

This study revealed that an the often used and seemingly robust definition of media literacy can nevertheless be considered too unreliable for understanding and viewing it as a guiding concept and relying on its theoretical underpinnings. Indeed, concepts and definitions from a field of study that is constantly in motion and critically divided, may be less suitable for tracking the development in the field under study and assessing the quality and robustness of concepts and definitions produced and used in the field under study.

The results of our research are also limited in their scope and expressiveness because some of our studies rely on small sample sizes and case studies (see chapters 3 and 4). Further limitations relate to the fact that the interviews (chapters 3 and 4) and the Network Barometer (chapter 4) rely on participants' perceptions and self-reports. When exploring ESL's attitudes (study 2, n=12), teachers' beliefs and professional needs (study 3, n=11) and at-risk students' needs (study 4, n=45), the results were inferred based on perceptions, self-reports and observations.

6.5   DISCUSSION

6.5.1   Positioning literacy

We ended chapter 2 with the question whether learning opportunities concerning media literacy are offered at the right time, in the right form and distributed over the lifespan in the best possible way. This question addresses two of the challenges for research presented by Livingstone (2013). Livingstone asked whether members of the research community were promoting media literacy for everyone or whether they were only interested in certain groups. The lack of research we encountered, with regard to literacy practices that would support disadvantaged youth, enhancing their social and economic position, shows the relevance of Livingstone's question. That is, are we indeed merely addressing the needs of those who are in compulsory education or those who have the means and abilities to enter online courses as part of their post-initial learning? We found that teachers who work with those at-risk do not take the position and skills of adult students into account. Although understandable, we would advise teachers to reconsider what they consider 'foundational or basic skills' among adult students from mostly immigrant backgrounds. Both traditional literacy and numeracy will not suffice in a world where public services are becoming completely digitalized by 2017, as the Dutch government has planned.

And what about the needs of those who are not able to enter and complete online courses on their own? According to Lowyck (2008), open technological environments call for learner control, self-regulation, and group learning. Research indicates that

online courses like MOOCs are difficult to find on the Internet, are not easy to complete without guidance, are generally of low pedagogical quality and leave students without adequate support. Finding a suitable MOOC on the web requires information-seeking skills and completing a MOOC requires motivation and persistence, because these types of learning environments often lack the needed support (Saleh & Sanders, 2014) and social affordances that enhance social presence (Russo & Benson, 2005). As most disadvantaged, at-risk students lack both the required learning skills, motivation and attitudes, online environments that rely on users' learner control and self-regulation (Lowyck. 2008), media literacy and attitude (Janssen et al., 2013) like MOOCs, will probably not offer viable, alternative post-initial learning opportunities for this population.

6.5.2   Teaching literacy

If we are intent on educating the younger generation for a world we are already living in, we must also ask whether the opportunities we offer are equally distributed. Or is it possible that differences – already visible in Dutch education between general education and vocational education, (Bronneman-Helmers & Zeijl, 2008) – are also reflected in the development of media literacy in a stratifying way as already critically stated by Finn (2010) and hinted at by other researchers (Kapitzke, 2003; Lau, 2013; Robinson, 2009). Finn found that hierarchical levels of functional, informational and powerful literacy correspond with different school types and education levels. So for example, a professional school stressed using literacy to create where an executive elite school emphasized using literacy to understand and control. This difference is corroborated by the research of Lau (2013), who distinguishes between a rational-instrumental and a socially-critical perspective when comparing information literacy with media literacy. This distinction and separation seems to be a European trend, and "If, despite everything, the convergence takes place, it is more down to changes in technology and an integration of the media in a new communicative environment, than a theoretical discussion or disciplinary change" (Pérez Tornero, Celot, & Varis, 2007: 33).

These distinctions between different literacies and models not only point to the conceptual disagreements of researchers (Celot, 2014), they also show that some researchers are only interested in certain groups, like schools/children, youth or vulnerable groups (Grimes & Fields, 2012; Livingstone, Bulger, & Zaborowski, 2013; Lovink, 2011). The disagreements also point to possible concerns and interests of a different nature, that become visible when relations between conceptual approaches and political aims are taken into account in the conceptualization and operationalization of literacy (Markauskaite, 2006). Celot argues that instead of debating definitions, it is more realistic to offer models that can handle the relationship between properties inherent in the different literacies (2014). We propose that future research could also

follow Markauskaite's approach and study differences in properties, purposes, politics and priorities that exist for academics (emancipation, democracy, participation) and industry (implementable 'right' skills, concrete approach) (Livingstone et al., 2013).

What researchers and experts seem to agree upon is that skills or literacies, in terms of knowledge, skills, and attitudes, are hierarchically organized. (De Haan, 2004; Janssen et al., 2013; Van Dijk, 2008; Van Dijk & Van Deursen, 2014). This means that levels of either proficiency and competence (Janssen et al., 2013) or 'access' levels (De Haan, 2004; Steyaert et al., 2000; Van Dijk, 2008) function in a preconditioned, cumulative and recursive way and that no skill level can function properly without the other skill levels and each skill builds upon underlying skills. Skills "form a bundle" (Pfaff-Rüdiger et al., 2012: 55) or "go hand in hand" (Sonck, Livingstone, Kuiper, & De Haan, 2011: 2)

Because of this 'sequential and conditional nature' of skill levels, the question can be raised whether it is efficient to separate the practical development of these skill levels. What apparently does not work for students with low levels of education is that they are expected to develop operational and informational skills in school and are expected to develop strategic skills at home (Meelissen et al., 2014). It especially will not work for at-risk students when these operational and informational skills are framed as 'study skills' within the educational context. Put differently, due to the strong relationship between dimensions or stages of technology-related skills, it is questionable whether these dimensions, i.e. operational vs. informational and strategic skills, are best developed separately in different contexts, i.e. at home and in school.

Functional, technological requirements are usually subordinated to an educational goalsetting mechanism that solely strives for attaining prescribed, curricular goals in an often rather traditional fashion (Henderson et al., 2015; Fraillon et al., 2014; Voogt et al., 2013). Literacy practices are crippled in school (Geisler, 1994) and vocational pedagogy loses its critical edge (Gallea, 2012), when learners are merely expected to access and acquire pre-defined knowledge or skills and proceed to the correct answer in the most efficient way. By only according significance to learner experience if it contributes to the learning of pre-defined knowledge or skills and mastery of behavioral objectives, experience functions merely as a tool for enhancing motivation (Usher, 2009).

This kind of mechanism disregards students' needs for satisfaction, neglects students' desire for control, contests or marginalizes professional or social meanings that students and teachers may critically construct from students' learning experiences and activities (Geisler, 1994; Usher, 2009; Van der Meer, 2014). Avoiding critical lessons (Van der Meer, 2014), that is lessons were students actively question the meaning of subject matter, would mean effectively losing the creative potential of metaphor for professional development and change (Brown, 1992). According to Szalma (2014), motivation is a driving force in human–technology interaction and a central driving force in the design and creation of tools: humans do not create artifacts without a purpose, and humans use tools for activities that are meaningful to them. A shift

towards meaning is necessary, because in most task-related situations, goals and tasks are often extrinsically selected and individual, intrinsic motivation is less relevant or completely absent (Szalma, 2014).

Janssen et al. also found that experts agreed that digital competence connects to "various purposes (communication, creative expression, information management, personal development, etc.), domains (daily life, work, privacy & security, legal aspects), and levels" (2013: 480). What this means for education is that there is no single 'right set' of transferable skills that can be taught in one place and will work in all situations and contexts.

We strongly recommend schools and teachers in vocational education to:

- acknowledge that media literacy comprises of literacy practices that differ according to the situation and context they are used in. Teachers should understand that it does not suffice to reduce media literacy to information seeking skills and for the sake of educational purposes frame these as study skills.

- combine information literacy and media literacy within critical, vocational pedagogy. All students in vocational education at all levels have to learn and understand that literacy practices are essential aspects of social, economic and professional interaction, participation, development and change. With literacy practices we refer to the linguistics and rhetorical processes that contribute to identity, sociality, employability and professionality (Brown, 1992; Geisler, 1994; New London Group, 1996; Papacharissi & Easton, 2013).

- develop the pedagogical knowledge, expertise and reasoning skills that are needed to collectively appropriate technology in an effective way for pedagogical purposes;

- teach and develop the different skill levels in conjunction. At-risk students are not capable of determining the strategic benefits and transferring operational and informational skills they have acquired in education in different social and economic situations and contexts.

- take into account that mobile technologies offers different functionalities but also exert different social and emotional influences on user patterns and user states;

- take in to account that students' motivation and attitude are important predictors for academic performance. A design approach should entail more than promoting desirable behavior and group dynamics but should also include task related motivational characteristics.

- take in to account that social and motivational affordances may differ with regard to gender. Male students may require a different approach with regard to motivation and attitude;

- use students' practical experiences and expectations about their futures as an occasion to create meaningful learning activities, not only by discussing and reflecting on the learning process and the construction of knowledge but also by discussing and reflecting on practical experience in relation to the value of professional knowledge, the essence of expertise;

- engage students in the design of learning environment and learning activities to ensure the meaningfulness of the activities.

6.5.3   Measuring literacy

Indicators of and the measurement of digital competence or media competence have to a large extent been lacking until recently (Celot, 2014); this happened as a result of the conceptual debates on literacy (Bawden, 2001; Livingstone et al., 2013). There is also no need for a single measure or scale: rather, we acknowledge the multiplicity of literacies that relate to the situated, social purpose of literacy practices, (Buckingham, 2013; Street, 2003). Education thus has to teach and assess various literacies.

Much has recently been expected of the 'Programme for the International Assessment of Adult Competencies' (PIAAC) survey although it is not used in education. We believe it is relevant to make a remark with regard to the PIAAC-framework. As indicated previously, technology complements advanced communication skills and non-routine, interpersonal skills. These are turning out to be increasingly important across all fields, occupations and levels of labor. Recent research indicates that complementary ICT skills show the highest correlations – across all occupational levels, for task-related group activities – with regard to 'interaction with others', and especially with regard to 'communicating with supervisors, peers, or subordinates' (0.67), 'establishing and maintaining interpersonal relationships" (0.60), and 'performing for or working directly with the public' (0.59) (Spiezia, Koksal-Oudot, & Montagnier, 2016). These correlations far exceed those for the task-related activity group 'information', including 'documenting/recording information' and 'work output'. The fact that these complementary skills are not measured by the PIAAC-framework, weakens the actual value and significance of the reported outcomes for levels 3, 4 and 5 of the framework.

6.6   GENERAL CONCLUSION

Maybe we should no longer solely study the nature of technology or "the complex relationship between learner control and environmental (technological) support", as

suggested by Lowyck (2008: XV), because too little attention is paid to informal learning (Stauber & Walther, 2006) and social learning (Wildemeersch et al., 2000) and thus to little consideration is given to the starting conditions of disadvantaged, at-risk youth in non-controlled, informal learning environments. It may be more appropriate to study the sociology of education and technology (Selwyn & Facer, 2014) and consider the position and role of technology in social configurations and assemblages (Derksen & Beaulieu, 2011) that promote and support informal and social learning, because:

> Socialisation theory refers to individual learning processes but also to the societal recognition of such learning processes (Stauber & Walther, 2006).

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Chapter 7

Summary

The motive for this study is the fact that at-risk youth are less informed and educationally prepared for participation in a knowledge economy and networked society.

At-risk youth are those youth who are less likely to transition in to adulthood successfully. An important element of a successful transition is the level of educational attainment. In the Netherlands, a basis qualification at VET level 2 (ISCD level 3c) is seen as an important determinant of a successful transition and a successful future. At-risk youth are usually lower educated young people and potential early school leavers (ESL), who do not succeed in attaining a basic qualification. The larger part of Dutch ESL drop out of secondary vocational education (2010-11: 75%; 2013-14: 89%) (ROA, 2013, 2016). For a larger part, the factors that explain this situation are not of a cognitive nature but relate to personality traits and a lack of social skills (Eimers & Bekhuis, 2006; Vink, Van Schilt-Mol, & Sontag, 2008). A mere 5% of ESL are just not up to the cognitive challenge of attaining a basic qualification. The remaining 95%, consists of students, labeled 'overburdened', who face multiple, social and psychological problems (45%) and those, labeled 'quitters', who feel misunderstood or mistreated and sometimes even litterally 'pushed out' of the system (50%) (Eimers &Bekhuis, 2006; ROA, 2013, 2016). School related problems account for 43% of ESL (ROA, 2016). Attention in policy and practice regarding ESL consists of care and coercion. Preventive care-taking is mainly targeted at the overburdened students. The quitters are faced with coercion, that is, legislation and mandatory programs forcing them into welfare-to-work schemes when they apply for welfare. Without a basic qualification, they have a strong chance for precarious employment, that is, non-standard, temporary and poorly paid employment, and social exclusion (Eimers & Verhoef, 2004).

The world school leavers are faced with after graduation or dropping out has however also changed, as a result of modernization and the advent of modern technology. Participation in a knowledge economy and networked society increasingly depends on the use of social media and social networks (De Haan & Adrichem, 2010; Ester & Vinken, 2004; Laermans, 2010; Van Dijk, 2009; Wellman, 1999) and requires developing new kinds of skills or literacies (Autor, Levy, & Murnane, 2003; De Grip & Zwick, 2005; New London Group, 1996). Neither formal education nor welfare-to-work programs however appear to prepare lower educated for a transition to this networked future, that is characterized by uncertainty, de-standardization, and a growing demand for self-responsibility, self-realization and, essentially, lifelong learning (Stauber & Walther, 2006; Vinken & Diepstraten, 2010).

As a result of a lack of awareness and preparation for the knowledge economy and networked society , there are signs of an increasing gap or digital divide (De Haan, 2004; Livingstone, Bober, & Helsper, 2005; Van Dijk, 2008; Van Deursen & Van Dijk, 2014). This gap indicates that chances and opportunities for social and economic participation, e.g. sociality and employability, are unequally distributed and that inequalities and disparities are reproduced or even reinforced.

Although at-risk youth make abundant use of modern technology, they overestimate their own abilities and underestimate the value and potential of said technology for enhancing their social and economic opportunities and possibilities (Van Deursen & Van Dijk, 2012). There usage is limited to forms of leisure activities, maintaining relations with regular contacts, like friends and relatives (Huysmans & De Haan, 2010), and the highest necessary forms of electronic services and information provision (CBS, 2015; Van Deursen & Van Dijk, 2012).

For at-risk youth, the Internet functions more like a hangout, which is seen and used as a place to enjoy themselves, to experiment with identity and relationships, or even as a refuge (boyd, 2014; Papacharissi & Easton, 2013). They do not perceive and estimate the Internet for what it also can be: an opportunity to develop social or professional skills (Kirschner, Caniëls, & Bijker, 2012), expand their network and create new networks (Ester & Vinken, 2004), mobilize support and access and accumulate resources (De Haan, 2004; Zinnbauer, 2007). And in misperceiving and underutilizing these opportunities, they face a precarious future, possible social exclusion and economic obsolescence (De Grip & Zwick, 2005; Eimers & Verhoef, 2004).

It is has long been believed by policy makers that quitters would eventually manage without a basic qualification, because they still have the potential and capabilities to develop themselves. In a similar fashion, it is believed by media researchers that youth who do not participate and face social exclusion will develop skills and socialize almost naturally, once they are engaged in online networks that provide learning opportunities and support (De Haan & Adrichem, 2010; Livingstone, Bober, & Helsper, 2005; Mariën & Van Audenhove, 2011). This rationale is almost as naïve as the ones that claim that social media use empowers users socially (Carpentier, 2009) or culturally (Schäfer, 2008) or that mere access to and control of communication means is enough for users to overcome social differences and integrate (Lievrouw, 1998).

The focus of this study are literacy practices that may provide the opportunity or have the potential of enhancing social and economic, online participation of lower educated youth. Our background and context study raised three central questions:

- '… how disadvantaged youth can be motivated to actively engage in online activities and learn how to perceive and read the new symbols in these environments.'

- '… how these kinds of skills can be attained through alternative, online forms of informal learning and what the role of technology could be for quitters in attaining these skills.'

- '… how social affordances may support the learning process of disadvantaged youth.'

Taken together, these questions address the aspects of development of motivation and skills or literacies, and the supportive or engaging role of technology, i.e. social

affordances. In order to answer these questions and contribute to our understanding of how to improve the future participation of lower educated at-risk youth in the labor market and society, we performed a series of studies.

FIRST STUDY

In our first study on the concept 'media literacy', we were mainly interested in research tying media literacy to the emancipation or empowerment of the low educated and low skilled, that is the possible enhancement of disadvantaged youths' social and economic participation by means of literacy practices.

We used the ERIC database and combinations of different search strings, to search for relevant peer reviewed articles and combined this with metrics, like the h-index of authors, retrieved from Google Scholar with Harzing's Publish or Perish.

Literacy practices that have the purpose or potential of enhancing the lives of disadvantaged youth and young adults have not been covered in research. The quality and robustness of concepts and definitions produced and used in the field is questionable. Definitions and citations are remarkably inaccurate. Conceptual disagreements come down to viewing media literacy as an continuously expanding, assimilative concept, absorbing properties and functions of new media and literacy practices (Livingstone, Van Couvering, & Thumim, 2005), or a continuously diverging, discontinuous concept, accommodating itself to new media and literacy practices (Van Dijk & Van Deursen, 2010). Literacy research finally, can be differently framed, depending on whether media literacy is considered an individual or a societal prerequisite (Livingstone, 2012) and whether its gains are associated with benefits either for an individual or for the economy or society (Markauskaite, 2006). Unsettled debates on the literacy model come down to autonomous, 'real' media literacy model versus an ideological, 'situated' media literacies model. The concept of media literacy is in need of a broader, framework encompassing understanding, meaning and context (Bawden, 2001; Celot, 2014) and subsequently, a broader research agenda (De Haan & Sonck, 2012; Christ & Potter, 1998). Such a comprehensive framework, connecting properties, purposes and policies does not yet exist, though first exemplars have appeared (Ala-Mutka, 2011; Markauskaite, 2006;). Education is in need set of generalisable criteria by which to assess the adoption, interpretation and use of literacy practices (Livingstone et al., 2012; Markauskaite, 2006). The underlying personal, social and economic rationales that guide policies and practices are also in need of a further clarification in terms of the aims and benefits (Livingstone et al., 2012; Markauskaite, 2006).

It is expedient to distinguish between different literacies, or multiliteracies, that fulfill different purposes in different contexts (Buckingham, 2013; Street, 2003). These purposes can be ontological (Mejias, 2007), epistemic (Suthers, 2006), social

(Buckingham, 2013; Van Dijck & Poell, 2013), and economic or pragmatic (Thévenot, 2001) in nature. It is also useful to define the properties and purposes of these different literacies, and thereby combining the understanding, meaning and context of these literacies within a broader framework (Bawden, 2001). Considering the different rationales that exist and sometimes even conflict, it seems important to consider and question whether individuals' motives measure up to the demands of being active, engaged and responsible for their own learning and what it means for education when they do not.

SECOND STUDY

The second study presents the results regarding low-educated ESL' attitudes towards the use of social media and social networks. In this study we especially focus on the literacy practices: selective self-presentation and explicit participation. Online self-presentation and explicit participation may positively influence and expand one's individualized system social capital in terms of relationships (Stauber & Walther, 2006) and increase one's social capital in terms of access to online resources (Zinnbauer, 2007).

We used focus groups to explore the interests, needs and related attitudes of potential ESL *(n = 12)* with regard to social media use in relation to economic and social participation. Participants predominantly reported medium-related motives or opportunities regarding social media use, like the ease of making and maintaining contact with familiar friends and the fact that the costs are low. They were well aware of online risks, but not familiar with social and economic opportunities afforded by social media and social networks. Some even considered the use of social media for professional purposes, like maintaining contact or applying for a job as inappropriate.

After performing a within case and cross case analysis, we encountered negative, neutral and positive attitudes. A negative attitude points to deliberate non-use as technology offers no advantages, is seen as not social but mere data, its outcomes do not measure up to the costs, or forms a threat to one's privacy and security. The neutral attitudes displayed by participants showed a distant stance where participants seemed to objectify social media use; it looked as if they took a 'cybernetics' perspective on technology in terms of 'the purpose of social media is what it does'. They show a certain naiveté and lack a sense of reflection on the purposes of design and agendas of software companies. Participants with a positive attitude are pragmatic about the benefits of keeping in touch with friends and relatives easy and for free. They would not however expand their network and doubt the social and public recognition of self-disclosure.

Although social media use is limited to friends and relatives, presuming familiarity, we still found possible conflicting attitudes that point to aspects like ambiguity,

insecurity and anxiety. Participants engaged online with friends but still considered social media 'dangerous', 'unwise' or 'not done' because their parents had strictly forbidden it. These conflicts not only point to poor mediation strategies but also to disapproval of media-related behavior, often as a result of their problem history. Participants' attitudes were not oriented towards the future in terms of chances or opportunities resulting from social media use. This lack of future orientation can be seen as a kind of metacognitive threshold, holding these youth back from pro-actively exploring or creating opportunities and influencing or overcoming structural issues and problems.

THIRD STUDY

In our third study, we explored teachers' beliefs in relation to the affective strategy most teachers in VET prefer when working with at-risk youth and their beliefs concerning the use of modern technology. The teachers in this study all work at a regional college for vocational education in the Netherlands and serve students at the lowest level. An affective strategy mainly builds upon the teacher-student relationship and involves factors such as trust and mutual respect.

We used a mixed method approach, combining interviews *(n = 11)*, a college wide survey *(N = 42)* and a paper based questionnaire consecutively administered after five project meetings *(n = 11)*. The individual interviews were taken using a semi structured guideline The survey questions on teachers' beliefs were constructed using Fischbein and Ajzen's TPB-model. Beliefs about using social media were assessed on seven-point bipolar adjective scales.

The interviews revealed that individual teachers (members of a project team) are aware or their students' needs and problems, labor market demands and possible interventions, like curricular reform and use of social media in teaching. The survey data indicate that the teachers *(N = 42)* in general are familiar with social media at a personal level but are still unfamiliar with its pedagogical uses. Teachers do not feel uncomfortable when facing the demand for technology use and feel competent enough to handle unexpected events. What was remarkable, was the significant role of subjective norm as a precursor of teachers' attitude and intentions to use modern technology. Subjective norm mainly scored significant on the items perceived norm and motivation to comply and pointed to a relation with team managers and colleagues. What was interesting, were gender-related differences that appeared with regard to the preference for certain apps. These preferences could be related to possibilities for interaction (one-way vs. two-way) and possibilities for immediate response (synchronicity vs. asynchronicity). Comparable gender related differences did also surface in the fourth study when we explored social media use of at-risk students.

The teachers in the project *(n = 11)* started without a detailed plan of action. The project meetings initially revealed a dominant concern for students' privacy and security when discussing the possibilities of social media. A practical, hands-on demonstration by VET students about educational of social media use turned the table and shifted the focus towards pedagogical questions and challenges. Ambitions were deliberately attenuated by the team managers, creating a sense of manageability of the innovation process. The lack of ambition or concise project goals did not hinder the project team in finally agreeing upon three action plans involving social media: curriculum, guidance and group dynamics. Another, less practical outcome consists in the sense of trust and respect that was expressed via the paper based questionnaire.

A life world connection is required in order to prepare students for a fast changing, demanding world in which they have to participate in new types of socially organized activities and new learning environments in school and the workplace often based on collaborative and shared expertise (Järvela, 2006). Responsive, affective and need supportive practice also entails fostering learning capacity (Järvela, 2006), that is learner control, self-regulation, and group learning (Lowyck, 2008) in order to prepare students for lifelong learning in environments in which their learning will be mainly supported by technology (Redecker, Leis, Leendertse, Punie, Gijsbers, Kirschner, ... & Hoogveld, 2012).

FOURTH STUDY

In our fourth study we explored the possible relationship between at risk students' levels of social competence and their perception of social affordances. Social affordances are important for the socio-psychological dimensions of task accomplishment in online, distributed learning environments (Kreijns et al., 2002), because they foster trust, a sense of community and the development of interpersonal relationships (Kreijns et al., 2013).

We used a survey with descriptive categories and explorative categories. The descriptive categories covered the use of devices and media and the perceived teachers' quality of ICT use. The explorative categories covered three validated scales: social competence, sociability and social presence.

The respondents *(n =45)* are adolescent students at VET level 1, enrolled in a Dutch regional college for vocational education. Most respondents own some kind of device. Of the non-users, mainly male respondents (92%) did not own and subsequently did not use either of the device types (laptop/PC/tablet or smartphone/cell phone) that were listed in the survey. PC/laptop/tablet are mostly used for e-mailing (74%), viewing movies (68%) and looking up information (66%). A smartphone/cell phone is mostly used for texting (82%), keeping in touch with friends (67%) and chatting (67%). We also found gender related differences in use patterns related to device types. Female

respondents used their mobile/handheld devices for different things, like 'texting' (82%), 'keeping in touch with friends' (67%) compared with their use of laptop/PC/ tablet (e-mail: 50%; viewing/editing photos: 50%). Male respondents showed less device specific differences in use patterns. They use both laptop/PC/tablet and smartphone/cell phone for less interactive activities like gaming (laptop/PC/tablet: 74% and smartphone/cell phone: 77%) and viewing movies (laptop/PC/tablet: 62% and smartphone/cell phone: 77%).

With regard to their teacher's quality of ICT use, female respondents scored significantly lower *(M = 6.53, SD = 1.68)* than for male respondents *(M = 7.85, SD = 1.74)*, *t*(43) = 2.55*, p = .014, d = 0.771*. Levene's test indicated equal variances (F = 0.1*, p = .929*). This difference may point to the circumstance that the teachers have yet to learn how to teach with ICT, corroborating what Dutch teachers in general have indicated (Van der Boom & Stuivenberg, 2014). The participants expect teachers to use of social media in education for its modernizing possibilities, like 'providing more online access to services and information via Apps' (33%) and 'exploring new possibilities like using apps, e-readers, Twitter and Facebook' (29%). A substitution or augmentation of traditional educational practices, like 'providing more possibilities of interacting with the teacher during class' (16%) or 'providing more possibilities of interacting with the teacher outside of class' (9%), clearly scored lower.

We found gender related differences, although not significant, regarding the type of information that is shared. Male participants show a stronger tendency sharing task-related information. They prefer enhancing group performance and the relationship within the group. They also show a stronger preference for collaborative learning. Female participants show a stronger tendency towards sharing non-task related, social information. Gender related differences are also visible with regard to the possibility of visualizing a communication partner. Male participants are more sensitive to informational cues and have more difficulty or are less inclined in visualizing their communication partner during synchronous contact. Female participants seem more positive about 'comforting' affordances, suggesting a preference for intimacy, whereas male participants seem more positive about informational affordances.

On the social competencies scale (pupil SCOL) that ranges from 26 to 78, the respondents' mean score was 61.5 and 64,4% of the respondents scoring satisfactory (≥ 58), which is satisfactory but low. Satisfactory because the mean score lies above 58, but low because at least 75% of a school or population should score satisfactory. We found no significant correlation between levels of social competencies and the scales that represent social affordances in our study: sociability and social presence. Taking the low scores on all three scales together can be seen as an indication that socialization in online networks cannot be left to chance encounter, fortuitous induction or the natural and inviting nature of social technology. These scores should also be seen as a call for action. Action, where instead of rejecting or criticizing modern youth's online practices, this new habitus is studied and the results are used to inform the

design of critical vocational pedagogy addressing literacy practices. Functional, task-related and outcome-oriented design should be balanced with motivational, student oriented design, that is the satisfaction of students' needs for autonomy, competence, and relatedness.

CONCLUSIONS

Literacy practices are co-constitutive when it comes to the formation of identity, sociality, professionality and employability. It is important that contemporary literacy practices, like social media use and networking, are connected with educational programs that focus on social and personal (career) development, community building and lifelong learning. For this to happen, teachers who work with low-educated at-risk students play an important role. Caution is however necessary when schools and teachers consider the implementation of modern technology, and especially social media and mobile devices.

Expectations about the crossing of certain boundaries, like connecting school with students' life world, and connecting school time with out-of-school time, should be further studied. The expectations of both teachers and at-risk students are at odds, both within the group of teachers and the group of students and between the groups, and may not be congruent enough to move forward without further thought. Expectations about the role of social media in combination with mobile devices need further study as we encountered gender related differences.

The role of teachers is of eminent importance. But teachers still struggle with developmental issues. These issues concerning teaching with ICT, have to resolved in order for pedagogical practice to be reformed by translating expectations and experiences in to sound teaching methods. It is also important for teachers and education in general to prepare students for a future of lifelong learning and not forget about adult students along the way.

Finally, if at-risk students and youth in general are to be prepared for a future in which change and heterogeneity are constant factors, it is important to work on the attitude and motivation of students to cope with these circumstances. Working on students need for autonomy competence and relatedness is important because this also contributes to attainment of their future goals by means of lifelong learning.

Chapter 8

Dutch summary

In dit proefschrift, worden verschillende onderzoeken gepresenteerd die gericht zijn op de verkenning hoe door middel van socialemediagebruik door risicojongeren mogelijkheden en kansen op sociale en economische participatie kunnen worden vergroot.

Focus van deze studie is het feit dat risicojongeren minder digitaal vaardig zijn. Deelname aan een kenniseconomie en genetwerkte samenleving is in toenemende mate afhankelijk van het gebruik van sociale media en sociale netwerken (De Haan & Adrichem, 2010; Ester & Vinken, 2004; Laermans, 2010; Van Dijk, 2009; Wellman, 1999) en vereist de ontwikkeling van nieuwe soorten vaardigheden of geletterdheid (Autor, Levy & Murnane, 2003; De Grip & Zwick, 2005; New London Group, 1996). Noch het formele onderwijs noch op participatie en inclusie gerichte programma's en trajecten bereiden risicojongeren voor op een overgang naar deze genetwerkte toekomst, die wordt gekenmerkt door onzekerheid, de-standaardisatie, en een groeiende vraag naar eigen verantwoordelijkheid, zelfverwerkelijking en, in wezen, een leven lang leren (Stauber & Walther, 2006; Vinken & Diepstraten, 2010).

Als gevolg van een gebrek aan bewustwording van en voorbereiding op de kenniseconomie en genetwerkte samenleving, zijn er tekenen van een groeiende kloof ook wel aangeduid als digitale kloof (De Haan, 2004; Livingstone et al., 2005; Van Dijk, 2008; Van Deursen & Van Dijk, 2014). Deze kloof geeft aan dat de kansen en mogelijkheden voor sociale en economische participatie, bijvoorbeeld het ontwikkelen van sociaal kapitaal en vergroten van de eigen inzetbaarheid op de arbeidsmarkt, ongelijk zijn verdeeld en dat die ongelijkheid en daaruit voortkomende verschillen worden gereproduceerd of zelfs versterkt. Risicojongeren maken weliswaar graag en veel gebruik van moderne technologie, maar overschatten hun eigen vaardigheden en onderschatten de mogelijkheden door zich te beperken zich tot de hoogst noodzakelijke vormen van elektronische dienstverlening en informatievoorziening (CBS, 2015).

Voor kansarme jongeren of risicojongeren is het Internet niet veel meer dan een hangplek, die wordt gezien en gebruikt als vrijplaats om zich te vermaken of te experimenteren met identiteit en relaties. Zij zien Internetgebruik niet als een kans om hun competenties te ontwikkelen en hun netwerk uit te breiden, en voelen zich in het onderwijs niet begrepen en miskend. Teneinde hun toekomstige arbeidsparticipatie te verbeteren is het van belang dat sociale media en netwerken hun persoonlijke (loopbaan)ontwikkeling bevorderen, hen aanzetten tot gemeenschapsvorming en ondersteunen bij een leven lange ontwikkeling. Hierbij is een belangrijke taak weggelegd voor docenten die deze vaardigheden bij laagopgeleide studenten moeten ontwikkelen. Maar dat kan alleen als docenten in staat zijn deze jongeren digitaal te laten participeren in het onderwijsleerproces en hen voor te bereiden op digitale participatie in ontwikkelingsprocessen ten aanzien van socialiteit en inzetbaarheid. Het succes van die aanpak hangt niet alleen af van de docenten maar ook van de motivatie en houding van de over het algemeen laagopgeleide risicojongeren. Relevante vragen die de kans op een succesvolle aanpak bevorderen, hebben betrekking op (1) de

vaardigheden die samenhangen met geletterdheidspraktijken (2) de houding van risicojongeren ten aanzien van sociale media en sociale netwerken, (3) de positie van technologie in de opvattingen en houdingen van onderwijsprofessionals die werken met risicojongeren en (4) de invloed van het niveau van sociale competenties van laagopgeleide jongeren op de perceptie van sociale affordances in online omgevingen.

Ten behoeven van de verkenning en beantwoording van de onderzoeksvragen is onderstaand onderzoekskader ontwikkeld en gebruikt (zie Figuur 2.1 op pagina 44).
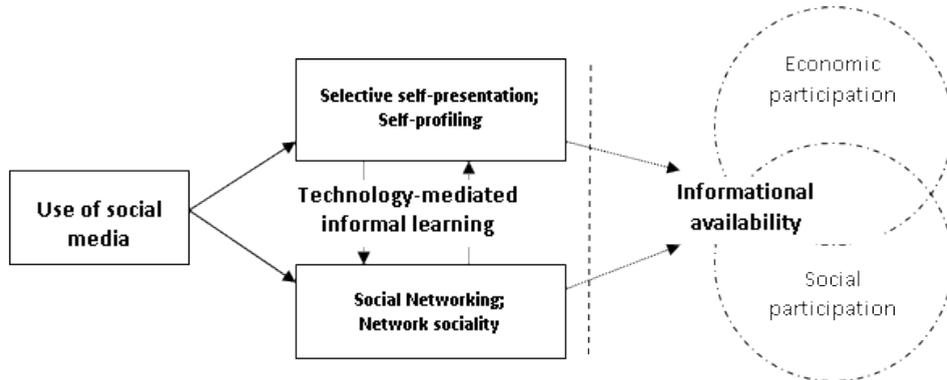
Online participatie in de sociale en economische context is voor een belangrijk deel gericht op en wordt afgemeten aan de beschikbaarheid en relevantie van informatie die door deelnemers in online netwerken wordt gepresenteerd, gedeeld, hergebruikt, et cetera. Het onderzoekskader veronderstelt dat de beschikbaarheid en relevantie van informatie wordt geconditioneerd door online zelfpresentatie en online socialiteit. De zelfpresentatie en socialiteit ontwikkelen en manifesteren zich door middel van participatie in online netwerken en veronderstellen dus socialemediagebruik als onafhankelijke variabele. De ontwikkeling van zelfpresentatie en socialiteit wordt door de technologie gemedieerd en heeft de vorm van een informeel leerproces, wat wil zeggen dat de verschijningsvormen en eventuele codes en conventies, dat wil zeggen de modaliteiten en habitus, niet vooraf vaststaan maar voortdurend in ontwikkeling zijn.

SAMENVATTING VAN DE BELANGRIJKSTE BEVINDINGEN

In onze studie naar het concept mediageletterdheid, waren we vooral geïnteresseerd in onderzoek dat mediageletterdheid verbindt met ontwikkeling en emancipatie van lager opgeleiden. Onder emancipatie verstaan we hier dat kansarme jongeren en jonge volwassenen vaardiger en zelfstandiger worden in het onderkennen en benutten van de kansen en mogelijkheden van online sociale en economische participatie. Het is algemeen aanvaard dat mediageletterdheid als construct niet hetzelfde betekent voor

iedere gebruiker in elke context (Raad voor Cultuur, 2005). Het is daarom raadzaam onderscheid te maken tussen verschillende vormen van geletterdheid, ofwel te spreken van meervoudige geletterdheid ('multiliteracies'). Geletterdheid dient verschillende sociale doeleinden in verschillende contexten (Buckingham, 2013; Street, 2003). Het is handig bij het nader definiëren van de eigenschappen en de doeleinden van meervoudige geletterdheid, een combinatie te hanteren van inzicht, betekenis en context, binnen een breder sociaal-cultureel kader (Bawden, 2001). De eigenschappen van geletterdheidspraktijken die het leven van kansarme jongeren en jonge volwassenen kunnen verbeteren, komen in onderzoek naar socialemediagebruik niet aan bod. We vonden geen peer reviewed artikelen die betrekking hebben op dit specifieke onderwerp bij het doorzoeken van de ERIC database. Bovendien werd die zoektocht bemoeilijkt, daar concepten rond geletterdheid elkaar overlappen en vaak als synoniem worden gebruikt. Het is daardoor moeilijk gebleken een database als ERIC op een betrouwbare manier te doorzoeken.

Onderzoek naar mediageletterdheid beperkt zich grotendeels tot leeftijdsgebonden ontwikkelingsproblemen en vragen met betrekking tot de jeugd in het algemeen. De meeste onderzoeken bestuderen de gevolgen van sociale media en netwerken voor de ontwikkeling van de identiteit en de socialisatie van jongeren, vanuit een formatief (Paus-Hasebrink et al., 2009), educatief (Van Deursen & Van Dijk, 2014; Van Dijk, 2009) of normatief perspectief (Kenway & Bullen, 2008). Vraagstukken die essentieel zijn voor het begrijpen van de transformatieve jaren van volwassenen en de relatie tussen kritisch overgangen in de levensloop en levenslang leren (Heckhausen, Wrosch, & Schulz, 2010), worden niet in onderzoek naar geletterdheid geadresseerd.

Onderzoek naar mediageletterdheid kan verschillend worden opgezet, afhankelijk van de vraag of mediageletterdheid wordt beschouwd als een individuele of een maatschappelijke conditie voor participatie (Livingstone, 2012) en of de 'opbrengsten' van geletterdheidspraktijken worden geassocieerd met de voordelen voor het individu, de economie of de samenleving (Markauskaite, 2006). Deze verschillende logica's hebben geleid tot een niet aflatende en onbesliste discussie over een autonoom, 'universeel' mediageletterdheidsmodel versus een ideologisch, 'situationeel' model voor mediageletterdheid (Collins & Blot, 2003).

Geletterdheidsonderzoek kan ook divers benaderd worden. Mediageletterdheid kan conceptueel worden opgevat als praktijken gerelateerd aan een voortdurende assimilatie van mediagerelateerde technologieën of praktijken die voortdurend worden verstoord en veranderd door mediagerelateerde technologieën (Livingstone et al., 2005). Deze verschillende conceptualisaties staan centraal in het debat over de vraag of mediagerelateerde technologieën nu juist vragen om een uitbreiding van oude vaardigheden met nieuwe elementen als onderdeel van een convergerend mediaconcept (Livingstone et al., 2005) vereisen of vragen om een herziening, resulterend in een divergerend, afwijkend mediaconcept dat 'nieuwe' geletterdheden of 'nieuwe' vaardigheden vereist (Van Dijk & Van Deursen 2010).

Ook vonden wij in de literatuur dat niet ieder individu er vanzelfsprekend toe neigt of de bereidheid toont om de nieuwe, technologische uitdagingen met betrekking tot de eigen mediageletterdheid te aanvaarden en successievelijk de verantwoordelijkheid te nemen voor het eigen leren en gemedieerde zelfrealisatie. Wij achten het derhalve van belang de vraag te stellen of individuen wel de motivatie hebben om zich als actieve, betrokken en verantwoordelijke personen te bekommeren om hun eigen leerproces door middel van vormen van open, online onderwijs.

In onze tweede studie naar de houding van risicojongeren, dat wil zeggen drop-outs en potentiële schoolverlaters, zijn we geïnteresseerd in de houding van deze jongeren ten opzichte het participeren in online netwerken en het gebruik van sociale media dat hierbij plaatsvindt. Actieve deelname aan online netwerken, dat wil zeggen doelbewust en strategisch gebruik van sociale media en sociale netwerken, kan positief bijdragen aan de kansen en mogelijkheden die wederom voorwaardelijk of bepalend kunnen zijn voor of de verbetering van de economische en sociale positie. Deze studie presenteert de resultaten met betrekking tot de verkenning van de houding van laagopgeleide (potentiële) voortijdig schoolverlaters, ofwel risicojongeren, ten opzichte van socialemediagebruik en sociale netwerken. Laagopgeleide risicojongeren worden geconfronteerd met sociale uitsluiting, die zich uit in 'geen of lage maatschappelijke participatie' en 'beperkte of geen sociale netwerken' (Eimers & Verhoef, 2004). Online zelfpresentatie en online participatie in netwerken kunnen iemands 'geïndividualiseerde systeem van sociaal kapitaal' positief beïnvloeden en uitbreiden in termen van relaties (Stauber & Walther, 2006) en het sociaal kapitaal vergroten in termen van toegang tot online bronnen (Zinnbauer, 2007). Deze vormen van participatie beïnvloeden de ontwikkeling van relaties en sociale banden (Wittel, 2001; Wellman, 2001), dragen bij aan de vorming van identiteit en vriendschappen (Valkenburg & Peter, 2011) en betekenen de eerste voorzichtige schreden van de jeugd op het pad van culturele en sociale participatie (Jenkins, 2006).

Door middel van focusgroepen verkennen we de belangen, de behoeften en de daarmee gepaard gaande houding van schoolverlaters en potentiële VSV'ers (n = 12) met betrekking tot socialemediagebruik in relatie met economische en sociale participatie. De deelnemers tonen ten dele een rechttoe-rechtaan houding met betrekking tot online zelfpresentatie en expliciete deelname aan netwerken, dat wil zeggen dat ze de mogelijkheden omarmen, accepteren of afwijzen. De deelnemers rapporteren vooral medium-gerelateerde motieven of kansen met betrekking tot socialemediagebruik, zoals het gebruiksgemak, het eenvoudig maken en onderhouden van contacten met vertrouwde relaties, zoals familie en vrienden, en het feit dat de kosten laag zijn. Ze zijn zich terdege bewust van online risico's, maar tonen zich niet vertrouwd of bekend met sociale en economische mogelijkheden van sociale media en sociale netwerken. Sommigen vinden het gebruik van sociale media en netwerken voor professionele doeleinden, zoals het solliciteren of onderhouden van zakelijke contacten, zelfs ronduit ongepast.

We vonden zowel positieve als negatieve houdingen ten aanzien van socialemediagebruik, die naar maatschappelijke relevantie en maatschappelijk rendement verwezen. Deze houdingen van vooral persoonlijke aard, wijzen enerzijds op een gebrek aan maatschappelijke relevantie en rendement, of wijzen daarentegen juist op besef van maatschappelijke relevantie (bijvoorbeeld het onderhouden van contact met vrienden en familieleden) en maatschappelijk rendement.

Een meer neutrale houding van deelnemers illustreert een afstandelijke, objectiverende houding ten aanzien van socialemediagebruik. Het lijkt of deze deelnemers een 'cybernetisch' systeemperspectief op technologie tentoonspreiden in termen van 'het doel van sociale media is wat ze doen'. Sommige deelnemers ervaren technologie als een vanzelfsprekend en onopvallend aspect van het dagelijks leven, dat weinig of geen directe invloed heeft op de sociale fijngevoeligheden van interpersoonlijke relaties. Daarbij gaat het veelal om elektronische diensten als telebankieren. De deelnemers met een neutrale houding worden gekenmerkt door een eendimensionale perceptie van mediatechnologie, en zien het als een onomstotelijk gegeven. Ze toonden weinig reflectie op het gebruik, risico's en kansen.

We vinden tegenstrijdige, ambivalente houdingen wanneer deelnemers wel online omgang zochten met vrienden, maar tegelijkertijd socialemediagebruik als 'gevaarlijk', 'onverstandig' of 'ongepast' beschouwen omdat ouders het strikt verbieden. Deze gewetensconflicten wijzen niet alleen op gebrekkige opvoedkundige strategieën van ouders, maar soms ook op regelrechte afkeuring van media-gerelateerd gedrag vanuit de eigen omgeving, vaak als direct gevolg van hun probleemgeschiedenis. Anders gezegd, sommige deelnemers hebben het vertrouwen en respect van de mensen om hen verloren en daardoor hun krediet verspeeld ten aanzien van het socialemediagebruik. Vooral genotzuchtig of recreatief socialemediagebruik wordt op een disciplinerende manier verworpen door sociale actoren in de eigen omgeving.

De houding van de deelnemers is niet gerelateerd aan een lange termijn perspectief op de eigen toekomst in termen van kansen en mogelijkheden die mogelijk voortkomen uit socialemediagebruik. Het gebrek aan oriëntatie op de eigen toekomst kan worden gezien als een soort metacognitieve drempel, die deze jongeren weerhoudt van het proactief verkennen en creëren van kansen en het beïnvloeden en overwinnen van structurele kwesties en problemen. Speciale onderwijsprogramma's, alhoewel geïnitieerd om voortijdig schoolverlaters weer op weg te helpen, hebben evenmin oog voor de langere termijn. Ze hebben weinig tot geen aandacht of ruimte voor socialisatieprocessen in zowel offline als online omgevingen en de opbouw van sociaal kapitaal. Die speciale programma's richten zich voornamelijk op de verwerking van het verleden en bevordering van het zelfbeeld, het zelfvertrouwen en de zelfredzaamheid om te leren omgaan met het heden, daar deze jongeren geacht worden hun schoolloopbaan in het reguliere beroepsonderwijs op zo kort mogelijke termijn weer op te pakken, op weg naar een startkwalificatie en werkgelegenheid.

Resultaten uit onze tweede studie zijn verwant met onderzoeksresultaten ten aanzien van het bestaande activeringsbeleid, dat voornamelijk wordt vormgegeven door middel van educatieve trajecten gericht op economische participatie (Wildemeersch, 2000). Wildemeersch concludeert dat op activering en participatie gerichte trajecten in de vorm van Education, Training and Counseling (ETC) zich niet mogen beperken tot economische participatie in een smalle, beroepsgerichte context en het verwerven van instrumentale competenties ten behoeve van de economische inzetbaarheid. Activering en participatie vragen volgens Wildemeersch (2000) om een bredere focus op competenties en een ruimere verbinding met een diversiteit aan contexten. De resultaten zijn ook verwant met onderzoek naar de invloed van digitale mogelijkheden op de kansenstructuur (Huysmans & De Haan, 2010; Mariën & Van Audenhove, 2010). In dat onderzoek klinkt vooral door dat ten aanzien van socialemediagebruik de aandacht dient te verschuiven van belemmeringen of tekortkomingen, zoals inzake toegang of vaardigheden, naar de individuele perceptie van waarde (Verdegem & Verhoest, 2009). Verdegem en Verhoest betogen dat de acceptatie, houding en motivatie ten aanzien van socialemediagebruik afhangen van de mogelijkheid om technologie, ofwel sociale media, naar eigen hand te zetten gedreven door persoonlijke behoeften en belangen en gekaderd door persoonlijke doeleinden.

In onze derde studie verkennen we opvattingen van AKA-docenten, dat wil zeggen docenten die op MBO niveau 1 lesgeven, over het gebruik van moderne technologie, zoals sociale media, als onderdeel van hun leeromgeving. AKA-docenten hebben een sterke voorkeur voor een affectieve strategie (Lesterhuis, 2010; Groenenberg & Hermanussen, 2012). Een affectieve strategie legt sterk het accent op de docent-student relatie en wordt gekenmerkt door factoren als vertrouwen en wederzijds respect. Daarnaast geven de docenten aan meer te willen doen met moderne technologie in hun werk.

We gebruiken een combinatie van kwalitatieve en kwantitatieve technieken om de opvattingen en overtuigingen van de docenten te verkennen. We gebruiken een survey voor een groep AKA docenten (N = 42) die werkzaam zij bij een ROC en werken met studenten op niveau 1 (ISCED niveau 2) en jongeren die zijn uitgevallen of dreigen uit te vallen. Van deze 42 docenten zijn 11 docenten die betrokken zijn bij een innovatieproject, individueel geïnterviewd vóór de start van dit project. Dit innovatieproject is gericht op het verkennen van de mogelijkheden die sociale media bieden binnen de onderwijsstrategie en in de leeromgeving. Uit de survey is gebleken dat de docenten (N = 42) in het algemeen vertrouwd zijn met sociale media op het persoonlijke vlak, maar dat ze nog niet bekend zijn met het pedagogisch en didactisch gebruik ervan. Interessant in deze studie onder docenten is dat resultaten uit de vierde studie onder studenten, gendergerelateerde verschillen laten zien met betrekking tot de voorkeuren voor bepaalde apps. Zowel mannelijke als vrouwelijke docenten tonen een voorkeur het gebruik van YouTube. Dit medium werkt asynchroon, ondersteunt eenrichtingsverkeer en lijkt daarom zeer geschikt voor substitutie doeleinden zoals het

verspreiden van opgenomen lessen of aanvullend cursusmateriaal in de vorm van video's, bedoeld om onderwerpen nader toe te lichten. Afgezien van YouTube leken vrouwelijke en mannelijke docenten bij socialemediagebruik verschillende voorkeuren aan de dag te leggen. Vrouwelijke respondenten lijken gevoeliger voor sociale media die synchroon werken, tweerichtingsverkeer ondersteunen en die visuele informatie bieden (bijvoorbeeld Skype). Mannelijke respondenten lijken daarentegen gevoeliger voor sociale media die asynchroon werken, tweerichtingsverkeer ondersteunen en meer feitelijke, tekstuele informatie bieden (zoals WhatsApp en Twitter). Dit verschil in voorkeur lijkt sterk op de, hoewel niet significante, gendergerelateerde verschillen die we in onze vierde studie aantreffen bij studenten.

De docenten die we observeerden tijdens bijeenkomsten van het innovatie project (n = 11) zijn meer vertrouwd met socialemediagebruik dan de meeste andere collega's; 80% van hen gebruikt van sociale media dagelijks, tegen 50% van hun collega's. De docenten in het project (n = 11) bespreken aanvankelijk vooral randvoorwaardelijke kwesties zoals administratieve belasting van de inzet van een socialemediaplatforms als bijvoorbeeld Facebook. De discussie gaat over zaken als het aanmaken en distribueren van accounts en het wijzigen van instellingen, en kwesties met betrekking tot privacy en veiligheid met betrekking tot hun studenten. De belangstelling voor kwesties rondom privacy en veiligheid is begrijpelijk als we kijken naar hun affectieve strategie: docenten willen de relatie met hun studenten, die gebaseerd is op vertrouwen en wederzijds respect, niet op het spel zetten. We zien echter dat het perspectief van de docenten op socialemediagebruik zich na verloop van tijd verbreedt naar hun eigen didactische vragen en de behoeften van hun studenten. Dit gebeurt na het zien van een presentatie door vier studenten en deelname aan een daaropvolgende hands-on sessie onder leiding van diezelfde studenten. De presentatie heeft in het bijzonder betrekking op de ervaringen van de studenten met de inzet van technologie en sociale media bij hun eigen leeractiviteiten. Het effect hiervan op de docenten bevestigt onderzoeksresultaten die erop wijzen dat docenten ertoe neigen hun opvattingen of overtuigingen te wijzigen wanneer ze getuige zijn van actuele praktijken en effecten van deze praktijken op het leren van studenten (Ertmer & Ottenbreit-Leftwich, 2010). Uit de survey (N = 42) blijkt dat de intentie van AKA docenten vooral sterk en significant beïnvloed wordt door de meningen en verwachtingen van de teammanager. Dit significante resultaat geeft aan dat subjectieve ervaringen ('subjective norm') van docenten bijdragen aan een mate van inschikkelijkheid ('motivation to comply') die de houding van docenten bepaalt als het gaat om de uiteindelijke intentie met moderne technologie aan de slag te gaan. Dit gegeven is des te opvallender daar de teammanagers in het project expliciet benadrukken dat AKA docenten pedagogische vrijheid hebben en die vrijheid ook kunnen omzetten in actie en gedrag daar ze terug kunnen vallen op het zogenaamde 'vrije taakmodel'.

Ook verkenden we het proces van de collectieve besluitvorming over pedagogische praktijken met een papieren vragenlijst die direct na iedere afzonderlijke

projectbijeenkomst werd afgenomen. Docenten kunnen zeer eigenzinnig zijn in hun persoonlijke overtuiging en opvattingen (Ertmer, 2010); pedagogische besluiten inzake de inzet van technologie worden daarentegen bij voorkeur gekenmerkt door een zekere mate van epistemologische consistentie (Suthers, 2006). Dit geeft aan dat collectieve besluitvorming over de inzet van technologie in de pedagogische praktijk niet evident is.

Het innovatieproject zou mogelijk ook productiever kunnen zijn geweest dan gebleken, wanneer de lat hoger zou zijn gelegd. Onderzoek van dit type project toont aan dat hebben van hogere ambities tot betere resultaten leidt (Wopereis et al., 2005). De ambities zijn echter opzettelijk afgezwakt door de teammanagers om het project beheersbaar te houden. Hoewel de bevraagde docenten een gebrek aan 'verbinding met de dagelijkse praktijk' vanuit het project rapporteren, als gevolg van een gebrek aan concrete en praktische resultaten, rapporteren zij een hoge mate van wederzijds respect. Het gebrek aan tastbare, direct inzetbare resultaten heeft geen invloed op dit wederzijds respect. Het wederzijds respect kan zelfs, op de langere termijn, een belangrijker resultaat zijn als we kijken naar collectieve besluitvorming. De projectbijeenkomsten blijken immers effectief wanneer tijdens de laatste stadia, goede collectieve beslissingen werden genomen over uitgangspunten, concrete werkafspraken en op te leveren producten voor het komende jaar. De docenten die betrokken zijn bij het innovatieproject evalueren tenslotte het project zelf, dat wil zeggen het belang van het project voor de ontwikkeling van de school en de eigen ontwikkeling, als meest positief. Wellicht minder tastbaar maar niet minder van belang.

In onze vierde studie verkennen we de mogelijke relatie tussen het niveau van sociale competentie van risicojongeren en hun perceptie van sociale affordances. Sociale affordances zijn belangrijk voor de sociaal-psychologische dimensie van samenwerking als het gaat om de voltooiing van taken in online, gedistribueerde leeromgevingen (Kreijns et al., 2002). De affordances bevorderen het vertrouwen, een gevoel van gemeenschapszin en de ontwikkeling van interpersoonlijke relaties (Kreijns et al., 2013).

Sociale affordances dienen zodanig te zijn ontworpen, dat ze worden waargenomen, hun bedoeling wordt herkend en hun waarde wordt onderkend. Op grond van de waarneming is het de bedoeling dat er een gewenste actie volgt. Er is sprake van een perceptie-actie cyclus. Wanneer sociale affordances niet specifiek zijn ontworpen voor gebruikers met een lager niveau van sociale competenties, kunnen deze affordances een te grote cognitieve uitdaging vormen voor de passende waarneming en een destructieve wrijving tussen gebruiker en omgeving veroorzaken (Vanthournout et al., 2009). Deze wrijving kan leiden tot emotionele kosten en de betrokkenheid verminderen (Robinson, 2009). Wanneer de sociale affordances daarentegen wel door gebruikers met een lager niveau van sociale competenties begrepen worden op een cognitieve niveau, is dat echter nog geen garantie dat die 'geïnformeerde' gebruikers in staat of willens zijn deze informatie om te zetten in adequaat gedrag en daarmee in een kans. Hoewel CSCL ontwerpers rekening houden met sociale beperkingen en conventies

en deze meenemen in het ontwerp, vereist het omzetten van informatie, dat wil zeggen perceptie, in adequaat gedrag, dat wil zeggen actie, nog steeds goede beslisstrategieën van de kant van de gebruiker. Daarnaast wordt de perceptie beïnvloedt door ervaringen uit het verleden en eerder opgedane kennis (Gregory, 1974). Dus de perceptie - actie cyclus vereist een leerproces waarmee gebruikers sociale affordances omzetten in nuttige kansen, waarbij positieve ervaringen en kennis ondersteunen en negatieve ervaringen en een gebrek aan kennis worden gecompenseerd.

Voor deze exploratieve studie hebben we gebruikgemaakt van een survey met beschrijvende en exploratieve categorieën. De beschrijvende categorieën betreffen het bezit en gebruik van verschillende typen apparatuur, het gebruik van verschillende soorten sociale netwerksites, verwachtingen over educatief gebruik van technologie en een kwaliteitsoordeel over de ICT-vaardigheden van de docenten. De exploratieve categorieën betreffen drie schalen, namelijk: sociale competentie, sociabiliteit en sociale presentie. Sociale competentie staat voor het vermogen adequaat te handelen in sociale situaties. Sociabiliteit is de mate waarin een online omgeving de kwaliteit van de sociaal-emotionele dimensie van interactie bevorderd. Sociale presentie is de mate waarin een online omgeving het gevoel bevorderd dat 'de ander' in die omgeving reëel is.

Als eerste hebben we vastgesteld of respondenten een apparaat (laptop/PC/tablet of smartphone/GSM telefoon) bezitten en gebruiken. De meeste niet-gebruikers zijn mannelijke respondenten. PC/laptop/tablets worden meestal gebruikt voor 'e-mailen' (74%), 'bekijken van films' (68%) en 'opzoeken van informatie' (66%); draagbare apparaten (smartphone/GSM) worden meestal gebruikt voor 'SMS'en' (82%), 'in contact blijven met vrienden' (67%) en 'chatten' (67%). We vonden gendergerelateerde verschillen in gebruikspatronen aan apparaattypen gerelateerde gebruiken. Vrouwelijke respondenten gebruikt hun 'handheld-devices', dat wil zeggen smartphone/GSM, voor andere dingen dan een PC of laptop. Bij de mannelijke respondenten blijkt dit verschil in gebruikspatronen minder groot; zij gebruiken 'handheld devices' overwegend voor dezelfde zaken als een PC of laptop. Deze verschillen in gebruikspatronen zijn echter niet significant. De studenten geven hun docenten over het algemeen een positieve score (M = 7.29, SD = 1.82) als het gaat om de ICT-vaardigheden. Een independent-samples t-test laat zien dat scores van de vrouwelijke respondenten aanzienlijk lager zijn (M = 6.53, SD = 1,68) dan die van de mannelijke respondenten (M = 7.85, SD = 1.74), t(43) 2,55, p =.014, d = 0,771. Dit verschil in waardering kan gerelateerd zijn het gegeven dat vrouwelijke respondenten andere verwachtingen hebben ten aanzien van de inzet van technologie en de omstandigheid dat docenten nog leren om te gaan met ICT en zich nog in een vroege ontwikkelingsfase bevinden.

Hoewel de Nederlandse 'Vier in balans monitor (Ten Brummelhuis et al., 2015) wijst op een toename in het gebruik van technologie in het onderwijs en op een zekere mate van vaardigheid bij docenten, geven Nederlandse docenten zelf aan dat zich nog te moeten ontwikkelen als het gaat om 'leren met ICT' (Van der Boom & Stuivenberg,

2014). Een realistischer indruk en genuanceerder beeld van de didactische ICT-bekwaamheid van Nederlandse docenten is minder positief (Voogt et al., 2013; 2015). Er is echter weinig onderzoek waarin de ervaringen, verwachtingen en/of adviezen van studenten fungeren als vertrekpunt voor een analyse van didactische ICT-vaardigheden van docenten. Onze resultaten moeten daarom met de nodige terughoudendheid worden geïnterpreteerd, omdat een oordeel van studenten over de ICT-vaardigheden van docenten net zo betwistbaar kan zijn als een oordeel van studenten over hun eigen ICT-vaardigheden.

De respondenten tonen een voorkeur voor socialemediagebruik in het onderwijs gericht op modernisering, zoals ' meer toegang tot online diensten en informatie via Apps (33%) en 'verkennen van nieuwe mogelijkheden als het gebruiken van apps, e-readers, Twitter en Facebook' (29%). Een substitutie of uitbreiding van traditionele pedagogische praktijken, zoals 'het bieden van meer mogelijkheden voor interactie met de leraar tijdens de les' (16%) of ' bieden meer mogelijkheden voor interactie met de docent buiten de les (9%), scoort duidelijk lager in de waardering. Wat hoog scoort, en daarmee de veronderstelling bevestigt dat respondenten nieuwe vormen van communicatie en interactie positief verbinden met de pedagogische praktijk, is 'samenwerkend leren' (33%). De belangrijkste conclusies die wij uit deze scores kunnen afleiden is dat de respondenten het socialemediagebruik in het onderwijs vooral waarderen wanneer daarmee nieuwe vormen van online dienstverlening en online toepassingen voor samenwerkend leren worden verkend. De studenten hebben minder waardering voor een uitbreiding van de onderwijsgerelateerde contacttijd of de substitutie van bestaande materialen door middel van digitalisering. Dit laatste aspect is ons inziens interessant in relatie met het kwaliteitsoordeel van de respondenten over de ICT-vaardigheden van de docenten. Een onervaren docent zal eerder overgaan tot substitutie, dat wil zeggen digitalisering van bestaande materialen en methoden, dan tot modernisering, dat wil zeggen modificatie of transformatie van bestaande materialen en methoden. Substitutie, bijvoorbeeld door middel van YouTube wordt door vrouwelijke respondenten waarschijnlijk minder gewaardeerd daar zij vooral gevoelig zijn voor het gebruik van synchrone technologie, die tweerichtingsverkeer mogelijk maakt en visuele informatie biedt.

De bescheiden en overwegend lage scores op de schalen 'sociale presentie' en 'sociabiliteit' onderstrepen dat de respondenten geen relatie ervaren of waarnemen tussen enerzijds sociale affordances en anderzijds vertrouwen, een gevoel van gemeenschapszin en interpersoonlijke relaties, met andere woorden, factoren die positief aan de sociabiliteit van de omgeving en de kwaliteit van de groepsdynamiek bijdragen.

Onze studie laat zien dat vrouwelijke respondenten een positievere waardering hebben voor sociale affordances die emotioneel opbeurend zijn en het onderling begrip bevorderen. Mannelijke respondenten zijn overwegend positiever over affordances die de communicatieve samenwerkingsmogelijkheden bevorderen. Hoewel deze resultaten

niet significant zijn, lijken ze verwant met andere onderzoeksbevindingen die laten zien dat er aanzienlijke gendergerelateerde verschillen zijn tussen perceptuele prestaties en interpersoonlijke ervaring, met name met betrekking tot 'accepteren van troost, 'gevoelens begrijpen' en 'geven van troost' (Lee, 2005).

De verschillen in scores op de schalen sociabiliteit en sociale presentie, namelijk hoog versus laag, vertonen geen verband met de verschillen in niveau van sociale competenties van de respondenten. Om dat vast te stellen hebben we een Mann-Whitney U test uitgevoerd. Voor zover de verbinding met het niveau van sociale competenties niet kan worden gelegd, is het de vraag wat de overwegend lage scores op de schalen sociabiliteit en sociale presentie zou kunnen veroorzaken dan wel verklaren. De lage scores kunnen uitdrukken dat er voor de respondenten geen evidente relatie is tussen de affordances en factoren als vertrouwen en gemeenschapszin daar zij deze factoren anders interpreteren (Jones et al., 2006; Krippendorff, 1997) of de affordances niet relateren aan factoren als vertrouwen en gemeenschapszin maar met voor hen zwaarder wegende factoren (Szalma, 2009).

Zoals eerder aangegeven wordt de perceptie van sociale affordances mede beïnvloed door eerdere ervaringen en eerder opgedane kennis (Gregory, 1974). Het is aannemelijk dat de omzetting van perceptie in actie ook sterk wordt beïnvloedt door de motivatie van een gebruiker (Szalma, 2014). Om door middel van een ontwerp 'gewenst' gedrag uit te lokken, zullen CSCL-ontwerpers naast sociale affordances wellicht ook motivationele affordances, die meer aansluiten bij de wensen en motieven van gebruikers, moeten meenemen in het ontwerp (Szalma, 2009). Overigens moet bij een ontwerpbenadering de kanttekening worden gemaakt, dat het belangrijk is vast te stellen waarom dit beoogde gedrag wenselijk is en in wiens ogen dit gedrag wenselijk is. Afgezien van het feit dat er voor CSCL-ontwerpers daarmee ook ethische vragen opdoemen die beantwoord moeten worden (Jones et al., 2006), zullen zij zich moeten afvragen of en hoe gebruikers hun eigen wensen kunnen vertalen naar gebruiksmogelijkheden (Carroll, 2004; Krippendorff, 1997; Verdegem & Verhoest, 2009).

AANBEVELINGEN

Onderzoek naar mediageletterdheid kan grofweg worden verdeeld in twee categorieën. Er is onderzoek dat zich bezighoudt met de voorwaarden voor sociale en economische participatie op zoek naar 'de juiste set van vaardigheden' en vooral is gericht op de sociale en economische verantwoordelijkheden en de doelstellingen van de politiek en instellingen. En er is onderzoek dat zich bezighoudt met geletterdheid 'in situ' en daarbij op zoek is naar het dynamisch samenspel van en evenwicht tussen de vermogens van het individu en affordances van de omgeving, en de onderliggende mechanismen dat

wil zeggen politieke, ideologische modellen, die bepalend zijn voor de relaties tussen individu en omgeving.

Wanneer één enkele definitie zeer uiteenlopende, complexe competenties en vaardigheden moet omvatten, moet serieus worden overwogen universele, platformneutrale en generaliseerbare criteria te ontwikkelen die kunnen dienen om de verwerving, interpretatie en het toepassing van mediageletterdheid te beoordelen (Livingstone et al., 2012). De onderzoekgemeenschap heeft niet alleen baat bij één duidelijk en coherent kader, met betrekking tot zowel de conceptuele eigenschappen als de praktische gebruikskenmerken en -doeleinden (Celot, 2014). Een dergelijk kader stelt ook beleidsmakers in de gelegenheid de focus te verleggen naar kritieke kwesties binnen gemeenschappen (Livingstone et al., 2013).

Ons eerste onderzoek maakt duidelijk dat niet-gebruik van sociale media en sociale netwerken meer symboliseert dan een kloof maar wijst op een complex, sociaal-cultureel probleem dat niet uitsluitend moet worden benaderd in termen van toegang of vaardigheden (Kellner et al., 2010). De persoonlijke voorkeur, keuze, of wens om bepaalde digitale technologieën wel of niet te gebruiken (Janssen et al., 2013) speelt eveneens een rol van belang. Wanneer de persoonlijke voorkeur, keuze of wens van het individu wordt gerespecteerd en centraal gesteld, dient er sprake te zijn van goed geïnformeerde individuen. Niet-gebruikers met een lager opleidingsniveau beschikken niet over voldoende kennis van ICT-hulpmiddelen om een geïnformeerde keuze te maken (Kellner et al., 2010; Meelissen et al., 2014; Van Deursen & Van Dijk, 2012). Zij moeten weten wat een keuze inhoudt en kunnen beredeneren wat de gevolgen zijn voor hun sociale en economisch mogelijkheden en kansen voordat zij een beslissing nemen over gebruik of niet-gebruik (Janssen et al., 2013).

Toekomstig onderzoek zou zich kunnen focussen op de combinatie van media-educatie en digitale vaardigheden vanuit een economisch en sociaal ingebedde, kritische pedagogiek met het accent op participatieve geletterdheidspraktijken als bijvoorbeeld openbare meningsuiting en ethische bespiegelingen (Kotilainen & Suoninen, 2013). Educatieve programma's moeten concepties en vaardigheden niet enkel vanuit beroepsgerichte, utilitaire opleidingsdoelstellingen behandelen. Alle studenten hebben het recht op de voorbereiding op een toekomst waarin geletterdheidspraktijken bijdragen aan sociale en economische ontwikkeling, mobiliteit, cohesie en zekerheid. Degenen die verder af staan van het onderwijs en voor wie zekerheid en inclusie op de tocht staan, moeten worden betrokken en uitgedaagd zich te blijven ontwikkelen op eigen initiatief en eigen voorwaarden, maar nooit uitsluitend op eigen kosten.

Resultaten van onze tweede studie onderstrepen nog eens het belang vooral oog te hebben voor houdingsaspecten en motivationele factoren (Mariën & Van Audenhove, 2010) en persoonlijke achtergronden, interesses, mogelijkheden en sociale condities (Robinson, 2009) wanneer het beleid gericht is op participatie en inclusie (De Haan & Adrichem, 2010; Stauber & Walther, 2006; Verdegem, 2011).

Onderzoek naar de houdingsaspecten van risicojongeren en laaggeschoolde werknemers kan in de toekomst worden geïntensiveerd met betrekking tot de individuele behoeften en persoonlijke waarden (Kellner et al., 2010; Verdegem & Verhoest, 2009). Ook onderzoek naar de mate waarin selectieve online zelfpresentatie of zelfprofilering in professionele online netwerken bijdraagt aan aspecten van interactieve inzetbaarheid van laaggeschoolde werknemers is zinvol. Onderzoek naar online zelfpresentatie kan profiteren van verwant onderzoek naar persoonlijkheidsfactoren als determinanten van socialemediagebruik (Hughes et al., 2012). Gezien de opvattingen en houdingsaspecten van laaggeschoolde werknemers als het gaat om hun eigen ontwikkeling, is het volgens ons zaak houding en motivatie als kritische en wezenlijke punten te betrekken bij de ontwikkeling van educatieve interventies.

Gendergerelateerde verschillen die we in onze derde en vierde studie vonden wekken de indruk dat vrouwelijke respondenten bij online interactie meer de nadruk leggen op 'emotional availability' en mannelijke respondenten meer op 'informational availability'. Daar onze resultaten hieromtrent niet significant zijn, maar ook de populatie vrij klein en de vraagstelling niet gericht op dit specifieke verschil, stellen we voor door middel van nader onderzoek hierover meer duidelijkheid te creëren

Gendergerelateerde verschillen met betrekking tot synchroniciteit versus a-synchroniciteit, eenrichtings- versus tweerichtingsverkeer en het verschil tussen vrouwelijke en mannelijke respondenten ten aanzien van visualisatie kunnen mogelijk worden verklaard door het feit dat (a) het verwerken van informatieve signalen langer duurt dan emotionele signalen, dat wil zeggen non-verbale, sociale signalen via synchroon digitaal contact (Gilboa-Schechtman & Shachar-Lavie, 2013), (b) indirect, a-synchroon contact meer informatieve dan sociaal-emotionele signalen biedt (Schouten 2007) en (c) vrouwelijke respondenten een grotere behoefte hebben aan emotionele signalen bij het visualiseren van een online gesprekspartner (Fivush et al., 2006). Toekomstig onderzoek zou zich kunnen concentreren op de rol van technologisch gemedieerde intimiteit, dat wil zeggen de mate van emotionele intensiteit die het resultaat is van self-disclosure en zelfpresentatie, persoonlijkheid, gender en perceptuele prestaties.

Uit onze studie blijkt dat het besluit moderne technologie of sociale media in het onderwijs te gaan gebruiken niet lichtvaardig mag worden genomen. Een van de redenen om het gebruik van sociale media vanuit een pedagogisch perspectief te verkennen, is de overtuiging van docenten dat socialemediagebruik de docent-student relatie zal versterkt omdat sociale media een belangrijk onderdeel vormen van de leefwereld van hun studenten. In didactisch opzicht is substitutie meestal de eerste, en vaak de enige stap in het proces (Blin & Munro, 2008; Henderson et al., 2015). Risicojongeren en AKA-studenten in ons onderzoek tonen echter duidelijk minder waardering voor een 'traditionele' vorm van inzet van technologie. Deze voorkeuren lijken niet verenigbaar met een technologische substitutie of uitbreiding van traditionele pedagogische praktijk. Een uitbreiding van de contacttijd wordt evenmin

gewaardeerd. Ook zijn niet alle docenten onverdeeld positief over de mogelijkheid de interactie met de studenten qua frequentie te verhogen en daarmee de contacttijd uit te breiden. De voorkeuren van docenten laten wel een duidelijk onderlinge verschillen zien, ingegeven door het type traject en het type jongere/student. Gelet op de mogelijk verschillen ten aanzien van 'emotional' en 'informational availability', is het van belang op te merken dat mannelijke studenten mogelijk minder geneigd zijn een behoefte aan steun te uiten (Stauber & Walther, 2006) en daarom wellicht anders dan vrouwelijke studenten reageren op sociale affordances. Ten slotte is het van belang vast te stellen of enkel de voorkeuren van studenten de leidraad moeten vormen voor de verkenning van geletterdheidspraktijken. Zowel gemedieerde sociale interactie- en gedragspatronen (Misra, Cheng, Genevie, & Yuan, 2016) als leerprocessen (Kaldeway, 2006) kennen een dermate diversiteit, dat het met het oog op de toekomstige participatie van jongeren van belang is een bredere benadering en verkenning in het initiële onderwijs te hanteren.

Observaties die we hebben gedaan tijdens het innovatieproject laten zien dat docenten tijd nodig hebben om met elkaar een gevoel van focus en consensus te krijgen wanneer wordt gewerkt zonder vooraf opgestelde agenda. Een groot voordeel van het werken zonder agenda, is de ruimte die ontstaat om daadwerkelijk te verkennen. Een nadeel is dat het tijd kost om verschillen in opvattingen en ervaring te overbruggen (Elmore, 2002; Ertmer, 2010) met het oog op wederzijds begrip, focus en overeenstemming over de resultaten. Ondanks de minder hoge ambities en het ontbreken van concrete, direct toepasbare resultaten, heeft de aanpak wel geleid tot een duurzame leergemeenschap (Wenger et al., 2011). Wellicht zou in de toekomst het inbrengen van expertise van buitenaf van 'toegevoegde waarde' zijn voor deze leergemeenschap daar de betrokken docenten moeite hebben met professioneel redeneren (Voogt et al., 2015) en het moeilijk vinden hun opvattingen en ervaringen op een methodische manier te vertalen naar pedagogisch praktijken (Ertmer & Ottenbreit-Leftwich, 2010).

About the author

Paulo Moekotte (Enschede, 1959) obtained his general secondary education degree (VWO) at the Jacobus College in Enschede. He then studied Dutch Language and Literature at the University of Groningen. During the doctoral phase of his study he started his teaching career as a substitute teacher Dutch language at his former school in Enschede. Shortly before finishing his doctoral study, he started as a teacher Dutch language at a school for upper vocational secondary education in business and administration (MEAO) in Almelo.

During this occupation he also studied Insurances in Utrecht to obtain his teaching license for Banking and Insurance. Finally he also started teaching Information and Communication Technology, inspired by the rise of computer technology and the Internet during the 80's and 90's. A large part of his teaching years he taught the lower tracks and began to understand the problems that lower educated are faced with. After teaching for almost 15 years, he switched his career shortly before the turn of the millennium and became a education policy advisor at the same organization for vocational education during a period when a national reorganization of vocational education caused a massive upscaling at the organizational level.

As a policy advisor he contributed to and witnessed development and improvement of vocational education for almost two decades. His contributions range from new educational programs, cooperation and collaboration with higher education, implementation of quality care and accreditation on institutional level, to the development of assessment policy and practices. During his first years of practice he contributed to the implementation of quality care in VET at the institutional level. He advised the executive board and teams during transformations, for example regarding the merger between two regional VET colleges (2004) and the educational transformation towards competency based education (2006). Advice entailed both practical and strategic issues. He founded and chaired his institution's Assessment Expert Group for a number of years during which institutional policy and practice concerning exams, assessment and quality care were developed, implemented and optimized.

He also participated and participates in diverse national initiatives and projects, e.g. membership of the:

- Assessment development committee at Stichting Examens Assurantiebedrijf (SEA) developing national exams for the VET program Banking and Insurance;
- Norm committee ISO/TC 232 responsible for the development of the NEN-ISO 29990 norm: Learning services for non-formal education and training;

- 'Taskforce Informatiebeveiligingsbeleid' (IBB) that developed the Information Security Policy for the Dutch VET sector;
- Independent Education Group for VET, Onafhankelijke Onderwijsgroep voor het MBO ('OOG voor het MBO'), an independent national think tank focusing on strategic VET issues;
- The 'Sounding board Knowledge dissemination' of the Centre for expertise in vocational education and training in the Netherlands (ECBO)
- The research group 'Educational arrangements in social context' that was established by the ROC van Twente and Saxion, University of Applied Sciences.

This research group focusses especially on early school leavers or 'drop outs'. He was invited to join the research group by his colleague and professor chairing the research group, dr. Henk Ritzen. This research activity reconnected him with the underserved and disadvantaged youth he had gotten to know, respect and care for during his teaching years.

In 2009 he began his PhD research project by presenting his proposal to P. Robert Jan Simon, esteemed professor in the field of educational psychology at the University of Utrecht and renown for his ground breaking ideas and work on learning and instruction. After Simons retired, he found a more than suitable successor in professor Saskia Brand-Gruwel, Dean of the Faculty Psychology and Educational Sciences at the Open University of the Netherlands and known for her elaborate work on information skills.

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