

Learning Lives Across Educational Boundaries: Continuity and Discontinuity in Learning Trajectories

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Abstract: In this article, I discuss educational boundaries as experienced by the learner across different contexts, activities and interests. Learning is understood as a trajectory beyond situated contexts. The analytical focus is how learning trajectories are experienced as continuity or discontinuity by students across in-school and out-of-school settings. The analysis draws on findings from a longitudinal project in one multicultural community of Oslo, using mainly observational and interview methodologies. The findings show that educational boundaries are often blurred and represent different learning trajectories beyond simple dichotomies of continuation or discontinuation in learning.

Keywords: learning lives, (dis)continuity, trajectories, boundaries, education

Introduction

The 20th century was characterised by a global explosion in mass formal education, in which a schooled society has come to be accepted as a universal common good. Over the last decade, however, both the relevance of mass formal education to a changed socio-technical and socio-economic environment, and its moral purpose as an instrument of social justice, have been subject to increasing critique (Egan, 2008; Claxton, 2008). In order to remedy the perceived deficiencies of mass 'industrial education', there have been calls to look to models of informal learning, especially within the new socio-technical spaces of the Internet, as a source of alternative educational strategies (Gee, 2007).

Some also argue that the resources, identities and experiences students develop in settings other than school are not properly recognised or used as an anchor for developing their skills and knowledge in school (Heath, 1983; Wortham, 2006). In the same vein, scholars have started to question the relevance of educational practices for the future workplace and for civil society, that is, students are not sufficiently able to re-contextualise the curriculum and make it relevant to manage problems and challenges in practices outside of educational institutions (Guile, 2010). For educational institutions and curriculum development, it is also a challenge how stakehold-

ers in the labour market impose pressure on the educational system, trying to make it adjust to societal needs and developments.

This article focuses on educational boundaries as experienced by the learner, especially how we explore experiences and knowledge building between and across different contexts, activities and interests. By using the term ‘learning lives’ (Erstad & Sefton-Green, 2013), the objective is to explore learning as a trajectory beyond situated contexts, such as classrooms. The analytical focus for this article is continuity and discontinuity between educational boundaries of learning experiences in school and outside of school. The research question is: How are learning trajectories across in-school and out-of-school contexts experienced as continuity or discontinuity by students?

To shed light on this research question, I will report on findings from a project in one community of Oslo, Norway. The project called ‘Local literacies and community spaces. Investigating transitions and transfers in the “learning lives” of Groruddalen’ (2009–2013) was a longitudinal ethnographic study following 60 students and their families over a period of about two years, in school settings and as part of activities within the community. In this article, I will present observational and interview data to explore the research question.

Review – Educational boundaries as (dis-)continuities

Within educational research, it is well documented how learning activities are taking place in classrooms (Hattie, 2008). Ways of informal learning outside of schools are more vaguely defined in the research literature, yet at the same time, are proclaimed to be of major importance for the future of education (Sefton-Green, 2012; Facer, 2011). Educational scholars have started to question how participation in multiple contexts like school, home, peer groups and leisure settings affects ongoing learning processes (Tuomi-Gröhn & Engeström, 2003).

Several efforts have been made in trying to define what constitutes a learning context or learning environment beyond just classroom settings, and also how this changes over time (Jonassen & Land, 2000; OECD, 2013). On a conceptual level, van Oers (1998) presented an approach to context, inspired by the ideal of developing a non-dualistic theory of human activity, arguing for using the concept of contextualising rather than context, as an ongoing interactional process of meaning making and creating conditions for learning. If we merely point out that learning is situated in context, we miss the point, because we are ignoring how people themselves actively establish contexts of meaningful action (*ibid.*). Sometimes there can be connections, other times tensions, and yet at other times, they might not be related at all (Silseth & Arnseth, 2011). How these connections or tensions are established has consequences for the person’s learning trajectories, understood as ways of participating and engaging in learning processes over time.

Some have also tried to identify more clearly what constitutes educational boundaries and boundary crossing (Akkerman & Bakker, 2011). Boundaries can be understood as something defined by the system of schooling as in the physical boundaries

of the school with fences and buildings, and the often decontextualised nature of subject content that you learn about in school, but do not use elsewhere. However, boundaries can also be understood as created by individuals or groups themselves as personal conceptions of who you are, and boundaries about ‘us’ and ‘them’. Ways of conceptualising boundaries also raise issues of ways of crossing or overcoming boundaries. Bronkhorst and Akkerman (2015) write about boundary crossing as ‘a process of (re)establishing continuity in action and interaction across different social cultural practices. In contrast to discontinuities, *continuities* in learning across contexts testify to prolonged efforts and activities related to particular content or participation’ (2015, p. 4). Crossing boundaries, as defined by the system or the person, is about ways of defining continuities.

Another approach towards issues of educational boundaries is represented by the term ‘learning lives’. ‘Learning lives’ (Edwards, Biesta, & Thorpe, 2010; Erstad & Sefton-Green, 2013) refers to the coherence between learning, identity and agency as personal histories and future orientations central to productive learning. Several empirical approaches have been influential in the way they open up ways of studying young learners across contexts, such as ‘literacy and learning as part of after-school programs’ (Cole et al., 2006; Hull & Schultz, 2002), ‘funds of knowledge’ (Gonzalez, Moll, & Amanti, 2005), ‘biographical studies of youth’ (McLeod & Yates, 2006; Thomson, 2009), and ‘connected learning’ (Ito et al., 2013). This research often targets students that drop out of, or are disengaged within, the regular school system. Also, to better understand ‘what they do not learn in school’ (Mahiri, 2004), researchers have become more aware of the developmental processes in different trajectories of participation (Dreier, 2003; Ludvigsen et al., 2011).

The notion of trajectory provides analytical means for understanding learning activities across time and space. Learning and participation trajectories are closely linked to identity as a ‘capacity for particular forms of action and hence a capacity to interpret and use environmental affordances to support action’ (Edwards & Mackenzie, 2008, p. 165). We should, then, explore how participants are not merely situated in space and time, but also actively networking learning resources across space-time in the course of their activity (Leander, Phillips, & Taylor, 2010, p. 8).

Context and methodology

Leander et al. (2010) point out that ‘following’ learners across and between sites is complex. Within ‘multisite ethnography’ researchers like Marcus (1995) and Falzon (2012) argue that the study of social phenomena cannot be accounted for by focusing on one particular site. However, the ways that different settings and contexts are interrelated as experienced by young people themselves, as the unit of analysis, have not been present in many educational studies (Leander et al., 2010).

The data presented here is part of a large-scale ethnographic study conducted in a multiethnic community, the Grorud Valley in Oslo, Norway, with about 130,000 inhabitants. Some neighborhoods consist of more than 35% immigrants, while others have up to 90%. In our study we involved three kindergartens, two lower secondary

schools and two upper secondary schools in five different neighborhoods in this community.

As a pilot study we collected diaries from 28 students during a whole week. The aim was to get a sense of how students in different neighborhoods spent their regular days, from the time they woke up in the morning, until they went to bed at night, with a special focus on their media use.

The research design for the main study started in the classroom, where we spent about eight months conducting observations and interviews following whole classes in different subject domains and study programs. The sample included three cohorts; pre-schoolers (5 and 6 year old students, who I will not report on in this article), 10th graders (15 and 16 year old students, last year of lower secondary school), and students at the end of upper secondary school (18 and 19 year old students). Within each cohort we then sampled 20 students for more in-depth study and following them into their neighbourhood, at home and as part of different activities. These students were sampled after spending several months in their class, choosing academically strong and weak students according to their teachers and grades, and an equal number of boys and girls. In this article I report on data from the cohorts of 15 and 18 year olds since they are more expressive and reflective concerning their learning trajectories.

Methods used in this study were: survey on background data; semi-structured interviews; field notes; still and video image and artefact collection; and co-production with young people or their parents. Some methods were modified to suit the ages of the cohorts. In order to answer the research question for this article I will primarily include data from the interviews with some supplementary data from field notes of students in different settings. The interviews were done systematically with all informants three times during a period of one and a half year, and each interview lasted about one hour. First set of interviews were done in November and December 2010, during the first phase of the project. The next set of interviews was done in April 2011 just before the final exams, and just after they had decided what to do during their next school year entering a new level of schooling. The last set of interviews was done from December 2011 until March 2012, at home, in their community or by phone. In addition we had several informal conversations with students both in and out of school that were written in field notes or audio taped.

The qualitative research interview is a way to understand and get access to the life world from the point of view of the research participants (Kvale & Brinkmann, 2009). In this study each interview was structured as dealing with past, present and future orientations of activities and interests in school and outside of school. Also, the interviews were dealing with conceptions of learning in the sense that we wanted the students to talk about their different activities; what they were about, degrees of engagement and what they got out of these activities. Our experience was that the interviews triggered the informants to reflect on what these different activities meant for them on a personal level and as learning trajectories over time (ibid.). The students gave positive feedback about the issues covered in the interviews, and that this was the first time anyone had asked them on a personal level about other aspects of learning than just school.

All interviews and field notes were transcribed and entered into Nvivo 10. In total this consisted of about 400 pages of transcribed data. We used a coding scheme

with two main categories; of places and activities the informants were involved in. This was further specified with sub-categories and nodes on their personal engagement and ways of learning, either as defined by others or self-initiated.

When working on the coding of data we decided to create narratives of the learning lives of the individuals in order to develop a coherent presentation of data on a personal level (Goodson, Biesta, Tedder, & Adair, 2010, Thomson, 2009). These are structured as stories about people's lives as told by themselves (Goodson & Gill, 2011). As Polkinghorne (1995) explains: "Narrative descriptions exhibit human activity as purposeful engagement in the world. Narrative is the type of discourse composition that draws together diverse events, happenings, and actions of human lives into thematically unified goal-directed purposes." (1995, p. 5). In this study the term 'learning lives' is used to approach similar issues of learning and development, as a lens that brings together vertical (over time) and horizontal (across contexts) axes of experience. In the following I will present extracts from several of the narratives in the study to discuss issues of continuity and discontinuity of learning trajectories.

Presentation of data

In the analysis, learning trajectories are related to three main issues of continuity and discontinuity. First, it concerns content and what students were oriented towards in school and out-of-school. Second, it concerns the activities they were involved in and how they are structured and goal oriented such as improving their skills and knowledge. Third, it concerns the ways in which the students position themselves, i.e. their learning identities, in different settings.

Continuities

Activities in school are of course diverse. There are varieties between subject domains and working methods, from whole class instruction by the teacher, to project work where students move out of school to collect information. However, my focus in this article is on the boundary between activities in and out of school, so I will not analyse school activities per se.

An obvious example of how school activities continue into everyday activities as learning trajectories is homework, which is a learning trajectory concerning knowledge production. A few of the girls mentioned that they were aware that doing homework was important in order to succeed at school, while a few of the boys emphasised that they often did not do homework because they had a lot of other things to do, like sports. There were also differences in where the students did their homework. Most of them did their homework at home, while some of the students reported that they preferred to do their homework either at school right after the school hours had finished, or at the local library. The reason for this was noise at home. Many of the students in this community lived in apartment blocks and had several siblings living

at home and sharing bedrooms, so the conditions for concentrating on doing homework were difficult.

A more surprising finding was that for some students their activities in everyday life directly influenced their ways of positioning themselves as learners at school. This was especially linked to participation in sports. There is strong evidence regarding how, for many students, sports has a positive impact on school performance (Rasberry et al., 2011). One girl in her last year at upper secondary school, for example, explained that she made training programs for herself to become better in cross country skiing, with clear performance goals aimed for specific competitions. At school, she did the same. She showed how for each subject, she made a program for herself to better perform. She called doing homework her training, and her exams were the aim for each subject. She was a high performing student with the best grade in all subjects. Her days, both with activities at school and after school, were very structured.

Another surprising finding in our data concerning learning trajectories within this multicultural community was the role of ethnic community centres. These centres were set up for cultural purposes of shared language and cultural activities. However, many of these ethnic community centres also provided school activities. In the interviews, many of the students explained that they had been active at these centres, almost every weekend, from the time they were preschoolers until they entered upper secondary school. Most often, these centres were situated in warehouse storage buildings in the community and had been rebuilt with regular classrooms with a teacher's desk and rows for students. The teachers were former students who now studied at the university in high-status fields, such as engineering, medicine, biology and the like. They did this on a voluntary basis during weekends due to social consciousness of giving something back to their own community. For several of the students in the study, these community centres functioned to encourage students to better perform within the formal education system, in the core subjects of math, physics and science.

Ugur, a 15-year-old boy, born in Norway, but with parents from Turkey, regularly went to the out-of-school Turkish centre to work with mathematics and Lego robotics. He ranked the teachers there as very good.

You have clever people, engineering students, technology students. You are one of two or three young people getting help from one student in a very small classroom. Very good! Very good! I joined the math class to become as good as my older brother in math (interview, 2011).

During participant observation in the math class at his lower secondary school, Ugur played iPhone games during class activities, while commenting to the researcher sitting next to him:

The math level here is basic. Really basic! I cannot be bothered working with math in school any more. That's why I play computer games, you know? (whispers while looking at the teacher). I practice at the centre. (fieldnote, 2011).

Ugur joined the technology courses at the Turkish centre because he remembered having fun building a steam engine with Lego Technics, a present from his mother in his childhood. Simultaneously, he developed a competence in using computers, both

software and hardware. In primary school, friends and teachers started to ask him for help, since he developed a role as a computer ‘wiz’ in his social network.

One interesting finding from the analysis of continuity concerns data from the pilot study using the student’s one-week diaries. The pilot study included 28 students (15-year-olds) that lived in different neighbourhoods in Oslo, but who were not part of the sample for the main study. For the students in this pilot study, it is obvious that school is a place and an institution that occupies most of their time during week-days. They also described it as a place consisting of different spaces, such as the classroom, science lab, schoolyard and online web sites used for school purposes. Activity patterns at school varied during the week, being a mix of formal and informal activities. Their descriptions of their communities, schools and activity patterns during leisure time were different. How much they used different technologies also differed quite a bit. In the following extract, I picked one day for one girl called Anita as an example. The point here is just to give a sense of the learning trajectories using digital media through a regular week or day.

Extract from Anita’s diary on media use in everyday life

Monday: I got up around 6.30. I was awakened by the terrible sound from my mobile. The first thing I did was to get dressed and make breakfast before I sat down with the breakfast in front of the PC. I then checked Facebook, even though I know that very few updates came during the night or that early in the morning, but it has become a habit. A bad habit! I went into my blog to update it.

At school today, we visited the “Clinic for Health and Sexuality Education” with the class. At the clinic, I took a number of photos of my friends with my camera that I later might use for my blog or just as nice and funny memories. When I came back to school after the main recess at noon, I sat in the computer lab to find some information about the Cuba crisis for a test in social sciences tomorrow.

When I arrived home from school, I uploaded the photos I took during the school day to my PC and edited some of them with Photoshop. Since I have problems to leave things aside that I think are fun, I continued making some web designs in Photoshop, because it is one of my hobbies. In addition, I am a bit upset because my MSN does not work after a crash with Windows Vista and the newest MSN. Ahh, I should pull myself together... It is just an awful small luxury problem! Later on, I sat down and read in the social science book and wrote notes on the computer because of a test tomorrow. When I finished the notes, I printed them out in order to read them again. At 18:00, I have extra math. At this teacher’s, I get help with assignments I believe are difficult and to understand the connection between different themes better. Before I went home after extra math, I bought Costume, a magazine I read every month. This magazine I read in bed before I lie down to sleep. When I came home, I put on a TV series that I like a lot. It runs on MTV and is called *The Hills*, but I have several season packages (DVDs) at home, which I put on when I am tired or do not have anything special to do. I have also downloaded some music to my iPod and it is charged now, tonight, because I like to listen to my iPod when I am going to sleep. Now I have some new music! Goodnight☺

The two main places she moves between are home and school. It is clear that she combines physical interaction at home or at school with being online, as a space for connecting with friends, especially using Facebook, but also following up on more interest-driven expertise using Photoshop. She is advanced in her interest in technology and the way she uses this interest for different activities. Her use of technology also moves across different contexts, combining these activities; for example, working on images she takes at school and reworks at home. We also see how formal and

informal activities are blended both at school and at home, in visiting clinics, taking photos at school that are then uploaded to Facebook, doing homework, and so forth. These kinds of diaries illustrate how activities using different media blend between different contexts for young people in different ways.

Discontinuities

It is well documented how subcultures of young people develop interests that can be in direct opposition to school (Sefton-Green, 2012). This is documented in research on how boys, in particular, are engaged in communities of playing computer games has also shown how such activities are positioned as in opposition to school, and that these students often get lower school grades (Gee, 2007; Stevens, Satwicz, & McCarthy, 2008).

In this article, I am not exploring such conceptions of opposition or discontinuities per se, but rather how discontinuities between activities and interests might have educational implications for students. The study makes it possible to study how interests that might be in opposition to school learning at one point, may provide young people with resources that might have an impact on their educational trajectories later on.

During interviews with Andreas towards the end of upper secondary school, he explained his interest in games and game design, an interest that started in grade eight, when he got his own computer. At that age, he was content with academic subjects and was happy to do animation and editing of images and videos in his leisure time. Even though his interest was in creating animation and videos on his computer in lower secondary school, he did not choose to study media and communication because, according to him, he wanted to have other options after upper secondary school. Finishing upper secondary school opened up new opportunities for Andreas, as he gradually realised that it was possible to study his out-of-school 'hobbies' in what is called folk high school, which is a system of independent schools distributed around Norway with one year programs based on young people's interests without any exams. Many students take this as a 'gap year' before entering higher education:

I: But when did you decide really?

A: That was maybe last year, when I discovered the education and game design and stuff.

For him, it became important to join one specific folk high school that had a media and design programme. When talking with him after the first semester at that school, he explained that he enjoyed a wide variety of different practices and could take advantage of former experiences and knowledge about design. When comparing it to his experiences with academic programmes in upper secondary, Andreas emphasised how much he worked in front of the screen at this school:

We have been taught to create 3D figures using a software program, using key-frames to move them around, creating short animations and short films. We have also used like a 'competition' software program that allows us to integrate our 3D models into a video clip from reality, like put them together. My intention is to use this to create computer games (Interview, 2012).

Andreas saw himself as a game designer in the future, and hoped to test this out during his year in the folk high school. The school offered him a safe environment, and to test out whether gaming and game design were interests he wanted to pursue.

Another finding from our data analysis concerning discontinuities was the way family histories for some of the students had a direct impact on their interests and ultimately on their choices for educational trajectories. One example is Hanne, a 15-year-old girl who moved in with her grandmother when her mother died a couple of years before. She had no contact with her father. After her mother died, Hanne started to gain an interest in horseback riding and photography. In the interviews, Hanne described how visits to the photography shop, where her mother was working, and examination of her mother's photos and interest in horses were important to her learning trajectory. Her out-of-school interests in photography and horses had also led her to create an online blog about horses, which worked as an online networking space connecting Hanne to others interested in horses. Throughout lower secondary school, she has been blogging daily and commenting on other blogs. Her blog contains images and video clips of horses, horseback riding and her personal horse diary. She was aware that 'a good blog cannot contain misspelling and poor writing because it is read and commented on by others' (interview, 2011). However, this literacy practice and interest was developed, not in opposition to school, but as a self-initiated activity with no specific connection to her school activities as she saw it herself.

At the end of lower secondary school, her interests made Hanne think more about future ambitions within the formal education system, in the sense that she wanted to enter the media and communication program at upper secondary school. As a consequence, her academic motivation changed. Her strong incentive was to become a skilled photographer. She managed to enter this program, which is very competitive. She experienced a closer connection between her in-school and out-of-school interests and activities. This connection helped her in further developing expertise within her field of interest. In our data we saw similar cases, especially among girls, where students had strong interests that they spent a lot of time on outside of school, and that from a longitudinal perspective, had an impact on their educational trajectories. For example, one girl who became interested in Korean K-pop at the end of lower secondary school, decided to study Korean language at upper secondary school.

Among the students in our study, there were also examples of students that consciously stopped focusing on specific interests and expertise they had developed outside of school in order to pursue and concentrate on educational futures. One example is Mathias. He was 18 at the time and in his final year of upper secondary school as part of the media and communication program. His two main interests outside of school were rap music and physical training. In the interviews, he talks passionately about how he discovered Eminem when he was 12 years old, and how it struck him on a personal level as something he connected to. Mathias' interest in rap music soon turned into a more active role as a rapper himself, writing lyrics and creating beats. He performed at youth clubs in his community and became well known among others his age. He also became part of a larger network of rappers in this part of the city and appropriated an identity as a rapper. In one of the interviews he explains:

I was probably not the smartest at school, but what I did with music, that was what I could do, and there was no one that could do that better than me at that time. I felt like, this is my thing. I feel like I manage school, and in addition I have trained a lot. I feel that I still am good in music, but I know many musicians that are very good, but it is not enough to be good. Everything has to connect. (interview, 2012)

Obviously, for Mathias, rapping meant a way to be a person, to create a learning identity based on confidence that he was good at something. It also meant he developed literacy practices of writing lyrics and creating beats as interest-driven skills. He also built up experience in performing on a stage with a large crowd of several hundred people. All this seems to strengthen a certain kind of learning identity for Mathias, building self-confidence and ways to be sociable.

Mathias' other main interest was physical training. After he stopped creating music, because he saw no future possibilities in it, his passion outside of school became Thai boxing. He explains:

I: Do you do a lot of training on the side?

M: Yes, every day. Boxing. Thai boxing.

I: Why did you start with that?

M: I guess it has taken over from the music. I have school and then I have always had the music. But then I feel I am moving nowhere with the music. And then I have always had an interest in training and using my body. And then I have always liked boxing and I went to wrestling a couple of years ago, and then I went to one training and got hooked, and train there all the time. (interview, 2012)

What became obvious was that when leaving his interest in performing as a rapper behind, his ambition was directed towards military service. How he links this to being involved in Thai boxing becomes evident when he explains that:

I: It seems demanding this Thai boxing, kind of rough.

M: Yes, I have injuries all the time, my nose is hurting and in the legs. However, if I am planning military service after school, then it is incredibly good, and you get very good physically. Not only physically really, but also mentally. To be able to stand in front of strangers and hit each other, that makes you stronger mentally. (interview, 2012)

His rational considerations have made him position himself in a certain way as a learner for the future. He refers to his experiences with Thai boxing, where he learned how to push himself to better perform. Mathias is a student that more or less consciously makes connections between his out-of-school activities and interests and being a learner in school.

Discussion and prospects

The narratives from different students mentioned above, either at the end of lower or upper secondary school, show different learning trajectories that students relate to over time. The focus has been on how these learning trajectories represent continuities or discontinuities between knowledge production, activities or ways of posi-

tioning themselves as learners, both in school and out of school. It has not been so much about exploring these contexts themselves, but rather to study ways of defining educational boundaries.

Boundaries are important in an educational sense because they influence the way young people engage themselves in learning and succeed in the school system, or build their own learning trajectories as alternatives to succeeding in schools. What is important as ways of (re)establishing continuity is the important role played by brokers, boundary objects and boundary interactions or activities and the value of institutionalising these in some way for sustainability (Bronkhorst & Akkerman, 2015).

One of the main findings from the presentation in this article about continuities and discontinuities of learning trajectories is that these processes are blurred as defined from the position of the learner, and there is a diversity in the ways such boundary crossings and learning trajectories are developed. This can be seen in activities that are expressed as continuities and is in line with knowledge production at school, such as in doing homework. We also saw an example of how students use activities like sports outside of school to position themselves and succeed in school. Due to the multicultural community in which the data collection was collected, it also became apparent that other settings in the community played an important role in connecting knowledge production, activities and ways of positioning across institutional boundaries. The data about Ugur shows that there is continuity for him in learning math, but with an opposite direction than what is normally thought about for the subject in school, since he learns more advanced math and is challenged more as a learner at the ethnic community centre.

Further, this blurring about continuities and discontinuities of learning trajectories is supported in the section on discontinuities when studying this over time. What might seem like clear boundaries between interests and activities at one point, may change over time. Like for Andreas, this started as an alternative to school, since game playing and creating game design was something he pursued entirely outside of school. Over time, however, this learning trajectory took over as his main ambition for the future. Completing school within the social science program was something he did to pass his certification, and then his main interest took over in the way he made educational choices. In a similar way, Hanne started an interest in photography and horses, building on a strong trajectory from her mother that became important in her choice of educational program upon entering upper secondary school. She could combine her expertise and interest from outside school with subjects and learning within school. For Mathias, however, it was about leaving his interest and expertise in creating and performing rap music behind to become more focused on school performance and his educational future.

All of these different cases and narratives show that learning trajectories across contexts are blurred, and that clear-cut divisions between continuities and discontinuities are not very helpful in understanding learning trajectories. Educational boundaries fluctuate in different ways for learners, and they change over time. In our data, this is also supported by the way digital and mobile technologies support learning trajectories in everyday life. This is most explicitly shown in the data from the diaries. The diary extract from one day in Anita's life, presented continuity between in-school activities and out-of-school activities and also showed how this is mixed

together. For example, she takes photos with her mobile phone during activities at school and then continues that activity again in the evening at home working with Photoshop, which is not available at school, and uploading them to the Internet. It is also reflected in how working with school-related topics after school is connected to upcoming tests at school. For her, technologies play an important role in the way these activities are mixed together.

Even though connections between in- and out-of-school activities are not new in educational research, the challenge is still to develop conceptual understandings and methodological approaches in order to study such trajectories of participation across contexts of learning. My point is that learning activities as experienced by young people today are much more connected and expanded across different settings than ever before.

References

- Akkerman, S. F., & Bakker, A. (2011). Boundary crossing and boundary objects. *Review of Educational Research*, 81(2), 132–169.
- Bronkhorst, L. H., & Akkerman, S. F. (2015). At the boundary of school: Continuity and discontinuity in learning across contexts. Paper at the EARLI conference 2015.
- Claxton, G. (2008). *What's the point of school? Rediscovering the heart of education*. Oxford, England: OneWorld.
- Cole, M., & The Distributed Literacy Consortium. (2006). *The fifth dimension. An after-school program built on diversity*. New York, NY: Russell Sage Foundation.
- Dreier, O. (2003). *Psychotherapy in everyday life*. Cambridge, England: Cambridge University Press.
- Edwards, R., Biesta, G., & Thorpe, M. (Eds.). (2009). *Rethinking contexts for learning and teaching. Communities, activities and networks*. London, England: Routledge.
- Edwards, A., & Mackenzie, L. (2008). Identity shifts in informal learning trajectories. In B. van Oers, W. Wardekker, E. Elbers, & R. van der Veer (Eds.), *The transformation of learning* (pp. 163–181). Cambridge, England: Cambridge University Press.
- Egan, K. (2008). *The future of education. Reimagining our schools from the ground up*. New Haven, CT: Yale University Press.
- Erstad, O., & Sefton-Green, J. (Eds.). (2013). *Identity, community, and learning lives in the digital age*. New York, NY: Cambridge University Press.
- Facer, K. (2011). *Learning futures: Education, technology and social change*. London, England: Routledge.
- Falzon, M. A. (2012). *Multi-sited ethnography: Theory, praxis and locality in contemporary research*. London, England: Ashgate Publishing.
- Gee, J. P. (2007). *Good video games and good learning*. New York, NY: Peter Lang.

- Gonzalez, N., Moll, L. C., & Amanti, C. (Eds.). (2005). *Funds of knowledge. Theorizing practices in households, communities, and classrooms*. Mahwah, NJ: Lawrence Erlbaum.
- Goodson, I. F., Biesta, G. J. J., Tedder, M., & Adair, N. (2010). *Narrative learning*. London, England: Routledge.
- Goodson, I. F., & Gill, S. R. (2011). *Narrative Pedagogy. Life history and learning*. New York: Peter Lang.
- Guile, D. J. (2010). Learning to work in the creative and cultural sector: New spaces, pedagogies and expertise. *Journal of Education Policy*, 25(4), 465–484.
- Hattie, J. (2008). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. London, England: Routledge.
- Heath, S. B. (1983). *Ways with words: Language, life and work in communities and classrooms*. Cambridge, England: Cambridge University Press.
- Hull, G., & Schultz, K. (Eds.). (2002). *School's out. Bridging out-of-school literacies with classroom practices*. New York, NY: Teachers College.
- Ito, M., Gutiérrez, K., Livingstone, S., Penuel, B., Rhodes, J., Salen, K., Schor, J., Sefton-Green, J., Craig Watkins, S. (2013). *Connected learning: An agenda for research and design*. Irvine, CA: Digital Media and Learning Research Hub.
- Jonassen, D. H., & Land, S. M. (Eds.). (2000). *Theoretical foundations of learning environments*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Kvale, S., & Brinkmann, S. (2009). *Interviews: learning the craft of qualitative research interviewing*. Los Angeles, Calif.: Sage.
- Leander, K., Phillips, N. C., & Taylor, K. H. (2010). The changing social spaces of learning: Mapping new mobilities. *Review of Research in Education*, 34, 329–394.
- Ludvigsen, S., Rasmussen, I., Krange, I., Moen, A., & Middleton, D. (2011). Intersecting trajectories of participation: Temporality and learning. In S. Ludvigsen, A. Lund, I. Rasmussen, & R. Säljö (Eds.), *Learning across sites. New tools, infrastructures and practices*. Oxford, England: Routledge. 105–121.
- Mahiri, J. (2004). *What they don't learn in school. Literacy in the lives of urban youth*. New York, NY: Peter Lang.
- Marcus, G. E. (1995). Ethnography in/of the world system: The emergence of multi-sited ethnography. *Annual Review of Anthropology*, 24, 95–117.
- McLeod, J., & Yates, L. (2006). *Making modern lives. Subjectivity, schooling and social change*. New York, NY: State University of New York Press.
- OECD. (2013). *Innovative learning environments*. The Centre for Educational Research and Innovation (CERI): OECD Publishing.
- Polkinghorne, D. (1995). Narrative configuration in qualitative analysis. In J. A. Hatch and R. Wisniewski (Eds.) *Life History and Narrative* (pp. 5–25). London: Falmer.
- Rasberry, C. N., Lee, S. M., Robin, L., Laris, B. A., Russel, L. A., Coyle, K. K., & Nihiser, A. J. (2011). The association between school-based physical activity, including physical education, and academic performance. A systematic review of the literature. *Preventive Medicine*, 52, S10–S20.
- Sefton-Green, J. (2012). *Learning at not-school: A review of study, theory, and advocacy for education in non-formal settings*. Cambridge, MA: MIT Press.

- Silseth, K., & Arnseth, H. C. (2011). Learning and identity construction across sites: A dialogical approach to analysing the construction of learning selves. *Culture & Psychology*, 17(1), 65–80.
- Stevens, R., Satwicz, T., & McCarthy, L. (2008). In-game, in-room, in-world: Re-connecting video game play to the rest of kids' lives. In K. Salen (Ed.), *The ecology of games: Connecting youth, games, and learning* (pp. 41–66). Cambridge, MA: MIT Press.
- Thomson, R. (2009). *Unfolding lives. Youth, gender and change*. Bristol, England: The Policy Press.
- Tuomi-Grohn, T., & Engeström, Y. (Eds.). (2003). *Between work and school: New perspectives on transfer and boundary-crossing*. London, England: Pergamon.
- van Oers, B. (1998). From context to contextualizing. *Learning and Instruction*, 8(6), 473–488.
- Wortham, S. (2006). *Learning identity: The joint emergence of social identification and academic learning*. Boston, MA: Cambridge University Press.