



Becoming a construction worker in the connected classroom: Opposing school work with smartphones as happy objects

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Abstract

This article aims to fill a very specific and acute gap; in addition to the few studies on youth and digitalisation, smartphones and other mobile tools, it is very clear that the field of research concerning these issues in regards to vocational education and training is close to non-existent. By examining male Building and Construction programme students' collective use of smartphones in interaction during classes, this study contributes to increased knowledge about some of the challenges and possibilities that arise with the digitalisation of vocational education and training. The study uses new and innovative methods regarding how students' digital activities in the classroom could be captured and studied, and approaches video recorded data through the lens of Sara Ahmed's ideas of happy objects (2010), and the concept of community of practice (Wenger, 1998). The analyses show how the identity constructing processes that take shape when the students orient towards the smartphone as a happy object intersect with the students' future vocational identity as building and constructing workers, as well as explicating an anti-school culture.

Keywords: smartphone, vocational education, identity construction, masculinity



Introduction

Participating in different activities in the everyday work, as well as the learning strategies that vocational students develop is important in their process in adapting occupation-specific norms and values, and for creating a vocational identity. Studies on vocational identity show that vocational students can adopt different strategies in their work in constructing a vocational identity. Within the studies of identity construction in male-dominated vocational education and training, the focus has largely been on problematic aspects of boys' and young males' identity construction (Rosvall, 2015). These studies have often been in line with Willis' (1977) classic study on a group of young English working-class males, where the development of a macho jargon and a counter culture towards school, teachers and (female) ambitious peers are predominant attributes in the male identity construction. From different theoretical perspectives, and with different methodological approaches, studies have to a large extent confirmed these attributes in boys' and young males' vocational identity construction, in and outside school (cf. Åberg & Hedlin, 2015; Berglund, 2009; Ferm, Persson Thunqvist, Svensson & Gustavsson, 2018).

In parallel with this, there has been a digital development in society at large, that in many ways has led to essential changes to the teaching and learning practices that take place in contemporary classrooms. Significant investments have been made by schools to introduce digital tools like laptops and tablets, with expectations that they will become an essential prerequisite for school development. However, the issue of smartphones in the classroom has shown to be significantly more controversial and has in the debate, primarily been seen as a cause of disturbance (Ott, 2017). In research, studies on smartphone presence and use in classrooms have, to a large extent, focused on the relations between bans on smartphones and students' school performance (Beland & Murphy, 2015) as well as smartphone usage and its impact on student learning (Asplund, Olin-Scheller & Tanner, 2018; Kuznekoff & Titsworth, 2013; Wei, Wang & Klausner, 2012). However, knowledge about the role of the smartphones in the classroom and the way in which they interact with teaching and other activities such as students' identity constructing processes, is still relatively limited, especially in regards to vocational education. One reason to this might be that it is difficult to capture not only the fact that the phones are used, but also when they are used, and what students do when they use them (see Pascoe, 2012). One of the purposes of this study is to fill a very specific and acute gap; in addition to the few studies on youth and digitalisation, smartphones and other mobile tools, it is very clear that the field of research concerning these issues in regards to vocational education and training is close to non-existent (however, see Chua & Jamil, 2012; Shava, Chinyamurindi & Somdyala, 2016).

This article has a special focus on a Swedish male-dominated study programme in upper secondary school – the Building and Construction programme – and the use of smartphones in these classrooms. The results derive from a larger video-ethnographic project with the aim to explore the role of smartphone usage in upper secondary classrooms in Sweden.¹ In this study we have used new and innovative methods regarding how students' digital activities in the classroom could be captured and studied (see method section below). During two semesters we have followed the teaching in a male-dominated Building and Construction class at an upper-secondary school in a Swedish medium-sized city.

A recurring trait in the classroom interaction were the collective features in the smartphone usage of the students in the Building and Construction class. During classes, the students displayed what they did on their phones for several of their classmates at the same time, and we also witnessed numerous situations where the students used each other's smartphones. In this article, we will explore what these collective features in the Building and Construction boys' smartphone usage come about, and what their interactional purposes are. More precisely, the purpose is to study what identity-constructing processes the male students are engaged in when they involve their classmates in their smartphone use and how these processes relate to their shaping of a professional identity.

Becoming a construction worker

Colley, James, Tedder and Diment (2003) develop the concept of 'vocational habitus' to explain a set of dispositions required in the vocational culture in their analysis and interpretation of vocational becoming in three vocational learning sites. The vocational habitus is relational and dynamic, and it operates in disciplinary ways to dictate one's feelings, actions, attitudes and values, as well as how one should look, in order to 'become right for the job' (p. 488).

In the mentioned study, Colley et al. (2003) depict how engineering students encounter an engineering education that entails a culture characterised by specific notions of masculinity and instrumental attitudes towards study. In their encounter with the engineering education, the students develop certain notions of dispositions that are of importance in establishing a legitimate position within the field. In line with this, many recent studies on male students in Swedish vocational education (cf. Högberg, 2009; Korp, 2006, 2011) also point out different aspects of the distancing towards study, especially towards academic subjects such as language studies and mathematics. What these studies all have in common, besides following the work of Willis (1977), is the reaffirming of an 'anti-school' or 'counter-school' culture in which 'real men' do not do school work, and where 'having a laff' and/or using rough, provocative language are seen as strategies to display resistance (cf. Hill, 2001, 2007; Högberg, 2009, 2011; Moret, Dümmler & Dahinden, 2017; Nyström, 2012; Rosvall, 2011).

Many recent studies also argue that the construction of a male professional identity often demands a proficiency in a specific masculine jargon with elements of teasing, jokes and foul language use in a tough atmosphere in school as well as in work place-based learning (see Asplund, 2010; Berglund, 2009; Kontio, 2016; Lennartsson, 2007; Rosvall, 2011). Åberg and Hedlin (2015), for example, show how being able to display humour, orient toward the collective, physically strong and skilled carpenter, and to embrace a certain homophobia, reinforces students' orientation to their future occupation. At the same time, students who fail in maintaining these relationships are at risk of being marginalised (ibid.). This is also something that seem to apply on workplace-based learning in VET. Ferm et al. (2018) show how students in the industrial programme with experience from workplace-based learning in industrial work perceived that being accepted as a team member at the workplace had to do with one's attitudes towards informal jargon and sexist jokes. Being able to handle this rough, masculine culture – to join in – were perceived as prerequisite strategies for establishing a favourable position in the working team, thus facilitating their transition into the work community.

A recurring trait in the studies made on professional identity construction in VET is the element of collectiveness. The process of learning to be a professional is by and large about adapting to a team of workers, to fit in. Berglund (2009) shows how these collective elements and the processes of creating a group affiliation are so strong in comparison that they overshadow actual professional knowing and learning. Becoming a part of a group are forces considered to be more important for these male students than conquering a more concrete professional knowledge or professional skills. In her study, Berglund (2009) shows that the students' enculturation into competent team workers includes that the students learn how to display comradeship and loyalty as well as to accept subordinating individual achievements to the collective results and achievements of the work team.

The fact that the creation of a community becomes such an important part of the education and its participants has also historical explanations; it has within the different occupations and vocational educations been important within a group, an affiliation to be able to rely on each other. Work often requires cooperation and is associated with a number of hazards (Andersson, Gunnarsson, Rosén & Moström Åberg, 2014), thus responsibility can be seen as valuable attitudes and as a way of moving closer to becoming a full member of the work group (Reegård, 2015; Taylor, 2009). Becoming a part of a work group, and being able to cooperate with others at the work place (and in school) are also features that the curriculum for the Building and Construction programme in several instances highlights as important features when one is to become a construction worker (Skolverket, 2011).

It is in the light of this that we try to make sense of the male students at the Building and Construction programme and their collective use of their smartphones. What are they actually doing with their phones, what does this 'new' medium create as it takes up a large proportion of the students' attention, and in what ways can this be understood in relations to the students' vocational identity?

Theoretical and methodological approaches

Community of practice

In the last decades, the concept *communities of practice* (Lave & Wenger, 1991; Wenger, 1998) has become more prominent in studies analysing how student and professional identities are accomplished in everyday classroom interactions (Åhlund, 2015). Compared to a workplace, the vocational classroom is a slightly different community of practice, where students are balancing between being a vocational student who is at the same time taking steps into becoming a proper member of a vocational community of practice. In this article, we have applied the concept of communities of practice in order to analyse how these local identities are accomplished through collective smartphone use in everyday vocational classroom interactions.

A community of practice has been described as a collective of people who come together around mutual engagement in some common endeavour, in our case it is a number of students engaged in learning building and construction as a future profession. Relations, interactions and norms, emerge in the course of the students' joint activity around that endeavour. Eckert (1998) states that a community of practice is defined by its membership and by the practice in which that membership is produced, thus the individual building and construction student constructs his or her identity through participation in a number of different communities of practices, and in many different forms of participation in each of those communities.

Billett (2001) points out that in addition to the disciplinary knowledge that is central to school institutions, vocational education students also have to engage with complex forms of work-based knowledge that include conceptual, procedural and dispositional dimensions. This affects not only knowledge acquisition, but also the ways in which students position themselves in the social practices they engage in. Lave and Wenger (1991), alongside other anthropologists have, for instance, for a long time stressed the idea that vocational learning 'implies becoming a different person with respect to the possibilities enabled by these systems of relations' (p. 52). Consequently, identity issues are key components to study when looking closer at transitions from school to work and therefore deemed worthy of a serious research focus.

The community of practice turns out to be an important space of this process of vocational identity construction. Communities of practice in classrooms emerge in response to common interest or position and play an important role in forming their members' participation in, and orientation to, the world around them. In this study we will analyse interaction where collective use of smartphones in vocational education classrooms and practical workshops play a role in creating these communities, and how the interaction in turn is related to the students' future vocational identity as building and construction workers.

Happy objects

The activities that are set into play in and through the students' collective use of the smartphones comprise processes of constructions of power of relations. Emotions are crucial here in relation to the construction of power relation in school concerning gender, class, sexuality, ethnicity, place etc. (Ahmed, 2004, 2010; Connell, 2005) which means that they are important to consider when analysing the constructing students' identity work. In this work, we find Ahmed's notion of *happy objects* (2010) useful when examining how the students involve their peers in and through their use of smartphones during classes.

According to Ahmed (2004, 2010), emotions are relational; they involve 'relations of towardness or awayness' in relation to objects (2004, p. 8), and as soon as this relation between the emotion and an object is established, it is given its individual and social meaning. In her book *The promise of happiness* (2010), Ahmed scaffolds theoretical tools from the fields of feminist and queer theories and she highlights the affective state of happiness, arguing that 'good things' are a product of the repetition of our pleasure. After we have experienced pleasure of a thing, we deem the thing as 'being good' (2010, p. 37), and we orient ourselves toward this 'happy object' to find happiness.

This expectation of pleasure from happy objects, or even from objects that are close to the original happy object, is not merely an individual orientation. According to Ahmed, objects become sites of personal as well as social tension, thus objects become spaces around which social groups orient themselves. When a group experiences pleasure from a 'happy object', they are aligned and facing the same way, and the object incites further pleasure and increases its affective significance. The more such links to different objects that are established, the stronger the solidity. The social dimension also means that the ones who do not experience pleasure from being close to objects that are already considered as being good by others, become alienated or excluded (see also Åberg & Hedlin, 2015; Åberg & Olin-Scheller, 2017).

In Ahmed's work, objects are not only material things, but also everything and anything that might bring us happiness. In that sense, also objects in the sense of values, practices, lifestyles and endeavours can become happy objects. The promise of happiness can, from Ahmed's point of view (2010), be seen as a moral

imperative that conceals inequalities and justifies the oppression of 'others' in order to 'restore' the natural goodness of particular ways of being in the world. As such, Ahmed presents a cultural critique that highlights and questions the marginalisation of particular identities that are seen to cause unhappiness (using the examples of 'affect aliens' such as 'feminist killjoys', 'unhappy queers', and 'the melancholic migrant') and that threatens the normative social order. Ahmed's approach to happiness thus provides a model for paying attention to and analysing how the different positioning of certain individuals and social groups (by the affirmation of appropriate 'happy objects') make certain norms and ideals become affective and more valuable than others, and how this facilitates specific gender, class and ethnic formations, among others.

The purpose of combining the concepts of community of practice with Ahmed's theorising on happy objects is to relate ways of doing a collectiveness to ways in which the participants co-construct their everyday worlds and in particular their own social identities and those of others in relation to the objects surrounding them. This is not simply a question of discovering how objects correlate with social structure or activity, but of how social meaning is constructed in the course of local social practice and conventionalised on the basis of shared experience and understanding (McConnell-Ginet, 1989). Approaching the boys' use of the smartphones in the classroom through a micro-perspective on interaction makes it possible for us not only to describe and show how the boys orient themselves towards the smartphone as a happy object, and what constitutes the smartphone as a happy object, but also how this is negotiated and what happens when particular norms and distinctions are challenged.

Method and data

In our study, we have applied a conversation analytic methodology (henceforth CA) in order to analyse and describe the identity constructing processes that take shape when the boys use the smartphone in the interactions (Schegloff, 2007; Sidnell & Stivers, 2014) during classes. In line with CA's radical participant's perspective, the organisations of talk-in-interaction are seen as ongoing sense-making practices of participants' social interaction. How the participants demonstrate their understanding of the situations there and then, and how they orient to the situation is in the centre of our analysis. This means that we examine which actions are made relevant at a specific moment in the interaction, and how they are made relevant from the participants' points of view, and the method involves the use of the participants' demonstrated understandings of each other's actions, and thereby provide material for analytic explication (e.g. Lee, 2010; Schegloff, 2007).

In our analyses, we understand both verbal and non-verbal language as resources that people use to produce and reproduce social reality; thus, not only sequential organisation of talk but also other semiotic resources such as gaze,

gestures, body movements, and physical objects such as laptops and smartphones are seen as constitutive of the activities being analysed (Goodwin, 2000). When approaching the data like this, the video recordings are transcribed in great detail according to specific conventions (e.g. Hutchby & Wooffitt, 2008).

The students included in this article come from one mid-Sweden upper-secondary school class in year 2 (of 3) of a vocational education programme, i.e. the Building and Construction programme. The students are aged 17–18, and the class consists of 25 students whereof 23 are boys. All students were informed about the aim and implementation of the study and were asked to participate either in recordings from the teaching lessons or by also allowing the researchers to record their use of smartphones and computers. The students' activities have been documented continuously over a period of one school year, through video recordings with two different perspectives; we have followed and recorded the student's physical interaction with peers, teachers, and with artefacts, in different teaching contexts in school with one portable camera, and as a second data source, we have used wi-fi technology to mirror and record the student's smartphone screen on a researcher's computer. These two data sources have then been synchronised and compiled into a video that shows the perspectives simultaneously.²

The field work in the Building and Construction programme has generated a total of 17 hours of video recordings of both practical teaching situations in the school's carpenter workshop, as well as theoretical teaching situations in the vocational education classroom. Although volunteering to be a part of the study, it is possible that the students could have felt intimidated by being followed by a researcher with a portable camera, and by letting their smartphones being mirrored and recorded on a computer. However, the choice of the technical solution where we mirror the screens of the smartphones gives us only access to what the students allow us to see. The mirror software is student controlled and the students were informed that they could shut down the mirroring if/when they wanted to do something on their phones that they would not like to share with the researchers.

As mentioned above, we noticed early on in our analyses of the material that there were a lot of collaborative activities surrounding the use of the students' smartphones. We also noted that all of these activities were student initiated, and in none of the examples were the use of smartphones a teaching-oriented activity. Rather, and as we will show below in our analyses, the smartphones were used for different social intentions, such as Snapchat, Instagram and other social and game related smartphone applications. After having categorised multiple clips in relation to the collective smartphone use, the analytic decisions made by the authors were presented, discussed and examined in several data sessions, as is common within interaction studies (Stevanovic & Weiste, 2017). These data sessions

involved up to five other researchers until we agreed upon choosing a couple of examples for a closer, in-depth analysis.

Thus, in this article we will take a closer look at some of these collaborative activities that are set into play when the students use the smartphone in the classroom by analysing three examples from our material. These examples are but only a few examples of the entire material, but they still make an adequate representation of these collaborative activities that the students participate in when they use the smartphone in class. The examples are also chosen on the grounds that they illustrate the variation of the smartphone use in the classroom.

The examples have been transcribed in detail inspired by the conventions of CA, where we have a special focus on the role of the smartphone in the sequentially ordered interaction, and on the identity constructing practices that are made relevant by the students in the interaction. The representations of the interactions are in this article presented in the form of detailed transcriptions of spoken data (see appendix for transcription conventions), as well as in pictures from still images of visual phenomena.

Results

During our field work, we have studied classes where the teaching of theoretical concepts has been in focus, as well as the classes where practical work has been done inside and outside different school workshops and classrooms. As we have been able to depict in previous studies within the project (e.g. Olin-Scheller, Tanner, Asplund, Kontio & Wikström, under review; Sahlström, Tanner & Valasmo, 2019; Tanner et al., 2017), the students mostly used the smartphones in the naturally occurring pauses, the so-called in-between spaces, that happen for instance when students move between classrooms, or when they are done with one assignment and wait for some new teacher-initiated activity. But we also noted some occasions where the students used the phone during a teacher's instruction, during movie-viewings, and in situations when students were expected to work on their assignments, either by themselves or in groups.

The selected examples that we have chosen to analyse in this article are chosen on the common basis that they all revolve around situations where the smartphones are used when the students are expected to work on teacher-initiated assignments, and that these smartphone uses in one way or another involves more than one student. Thus, in the following we will focus on the identity-constructing processes that take shape when the male students in the Building and Construction programme involve each other in their smartphone use, and how these processes relate to the shaping of a professional identity.

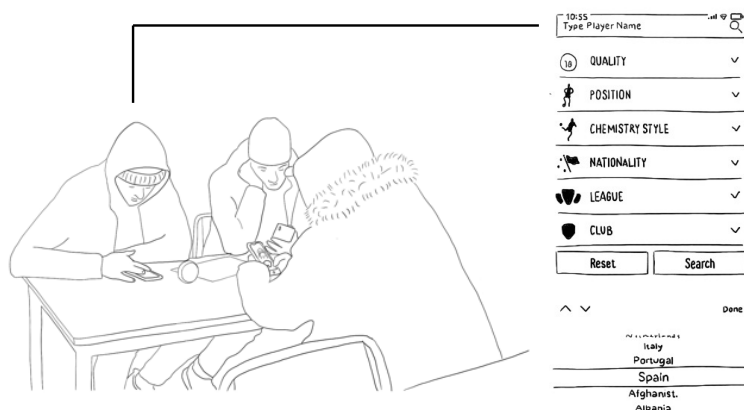
Contesting and validating the use of a happy object in peer group interaction

A recurring theme in the data collected from the teaching and learning at the Building and Construction programme was that of sustainable building. Our first extract from the data depicts a sequence that occurs in a longer session where the students are assigned to work in groups to construct a fictitious city where sustainability should be foregrounded. The subject matter and the assignment were introduced by the teacher and the instructions to the assignment were also available for the students on their digital school platform. Following the instructions, the students were assigned to work on their own by watching a film on YouTube related to the subject matter.

The student that we focused on during that particular day, Simon³, was initially working in a group of seven peers. When the class was reassembled, four of the group members were still in class, three of them had deviated. The remaining members of the group regard the assignment as solved and finished, the teacher however, asks the students to clarify and colorise their sketch of their sustainable city. Quite immediately, Aron, one of the group members, takes on the task and sits down by a table beside his fellow group members. Aron is left alone with the work of colorising while his peers; Simon, Erik and Liam, focus their attention on their smartphones. The sequence below starts with Simon encouraging Erik to open a smartphone application, Futbin, that is linked to a popular football video game. Simon then shares with his friends that he is about to look up some players when it suddenly comes to everyone's attention that Liam, who is not an avid gamer, has two packs of player cards to open in his smartphone application:

Example 1: *It's fucking electro man*

- 1 Simon: Ecki (.) ta upp futbin då
Ecki (.) open up futbin then
- 2 Erik: varför det?
why?
- 3 Simon: jag ska kolla va dom här spelarna kostar# (.) nära
I'll look at the price# (.) of some of these players some



4 spanska jävlar
spanish fuckers

5 Erik: det är ju packe (x)
that's a pack (x)

6 Simon: Liam öppna pa:↑ck då↓ (.) två styckna
Liam open the pa↑ck then↓ (.) two of them

7 Liam: °(knip) käften°
°shut up°

8 Simon: mä (.) du spelar ju ändå inte
but (.) you don't play any way

9 Liam: nej jag ska bara ha dom där (x) (.) fan va roligt
no I will just have those (x) (.) damn that's fun

10 Simon: då ä ju ro[1-
It's fun

11 Erik: [vi öppnar rare electrum player det är fan alla rare
we open rare electrum player it's all fucking rare

12 (.) tolv kort tolv rare
(.) twelve cards twelve rare

13 Liam: va sa du?
what did you say?

14 Simon: tretti du har två styckna
thirty you have two of them

15 Liam: du har två styckna?
you have two of them?

16 Simon: ja
yes

17 Erik: ja
yes

18 Liam: HE::J[HEJAOOÅÅOO ((gungar med kroppen)) metelehabalekem>
HE::J[HEJAOOÅÅOO ((rocks his body)) metelehabalekem>

19 Simon: [he:j ((bankar snusdosa i bänk i takt med Liams sång))
he:j ((dunks a snuffbox on desk in pace with Liams' song))

20 Liam: >ehäbe
>ehäbe

21 Simon: det gör du Liam du spelar ju inte ens Fifa
you do that Liam you don't even play Fifa

22 Erik: fan [var lite kul nån gång å inte
dammit [be a little fun sometime and don't

23 Liam: (spelar ju fan inte ens)
damn you don't even play

24 Simon: å så får du inte ens kolla på packet heller
and you don't get to look at the pack either

25 Liam: johu (.) jag ska kolla på det så jävla hårt också (.)
oh yes (.) I will look at it so fucking hard too (.)

26 Sto↑re promo↓ electro
Sto↑re promo↓ electro

27 Erik: det där är det det där är bra det
that is that that is good it is

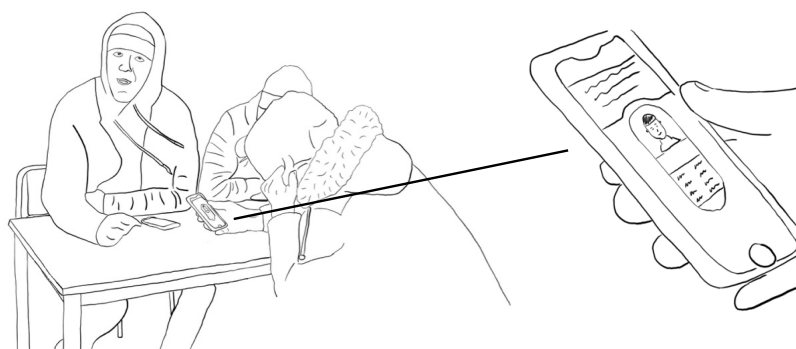
28 Liam: det ä fucking# electro man (.) it's electro::
It's fucking# electro man (.) it's electro::



29

30 ele[ctro:# ((sjunger)) electr[o:
ele[ctro:# ((sings)) electr[o:

31 Simon: [ÅHAA ((kastar sig bakåt))
 [OAHAA ((throws himself backwards))



32 Erik: (x)menes (.) fick du nån spansk rare?
 (x)menes (.) did you get any Spanish rare?

33 Liam: Aleksis Vidal
 Aleksis Vidal

34 Erik: ja han kostar
 yeah he costs

In line 8 Liam is positioned by his peers as someone who does not play (FIFA on a video game console), but he responds to this by saying that 'I will have them, damn that's funny', thus constructing an affective stance. Adjacent to this exchange, Erik requests that they all should open 'rare electrum players', as he also excitedly makes the others aware of the fact that 'they are all fucking rare'. In line 13 Liam says 'What did you say?', which probably is directed towards Erik's previous turn, but instead Simon tells Liam that 'you have two', a remark that Liam repeats - in the form of a question - in the following turn. The question is affirmed by Simon and directly after Liam starts singing some kind of cheering chant at the same time as he is swaying his body to and fro. The chant turns into a rigmarole with possible Arabic prosody, and as Liam is singing, Simon accompanies him by singing and beating his snuffbox on the table in line with Liam's chant.

After being positioned again as someone who does not play FIFA properly (line 21), as someone who does not get to 'look at the pack either' (line 24), and being encouraged to 'be a little fun sometime' (line 22), Liam makes it clear for everyone (line 25) that he is indeed going to 'look at a couple of fucking [packs]'. Simon's contesting of Liam's permission or worthiness to open the pack, through a kind of reverse psychology, intensifies the participants' interest in the outcome of the packs. This part of the interaction can be seen as a struggle for worthiness within a local hierarchy of managing happy objects, often noticed in previous research on play and gaming interaction (see Evaldsson & Corsaro, 1998; Sparrman & Aronsson, 2003). This struggle, competition and negotiation of respect among the peers done by Simon, Erik and Liam can be viewed in the light of the work of Robles, DiDomenico and Raclaw (2018) as a way of constructing oneself as an ordinary user of digital applications. By responding to the allegations of not being a proper gamer, Liam is constructing an identity that aligns with the expectations on smartphone use and games in this community of practice.

Meanwhile, Simon and Erik monitor Liam's smartphone activities, activities that Liam invites the others to take part of by making the smartphone display visible for his class mates. In line 27 Erik says 'that is good it is'. Liam upgrades this validating assessment by adding a game specific categorization; 'It's fucking electro man', and even repeats 'electro' a couple of times in a sort of sing-song, rhythmic, swaying manner which evolves into a chant or a song, perhaps one might find this to be linked to the very matter at hand; cheering chants and songs play an important part in being a football fan at a football game.

In the midst of the chanting, however, Simon leans over towards Liam's smartphone and touches the screen and immediately responds to what he sees by throwing his upper body backwards, and with a smile upon his face he makes a jubilant, celebratory response cry (Aarsand & Aronsson, 2009); 'OAHAA' (line 31), although a bit muffled, mind you, we are still in the classroom and extremely

loud response cries to gaming on the smartphone are not in line with expected student behaviour.

In line 32 Erik then asks Liam whether or not he got 'any rare', which Liam seems to have gotten as he quickly responds with the name of a well-known Spanish football player: 'Aleksis Vidal'. Erik confirms that the player is indeed to be regarded as rare, and he amplifies this by adding that the player is expensive.

In Example 1 we note that Simon, with the support from Erik, encourages Liam to log in to the FIFA 18 Companion application, in order to open a few packs. Liam then keeps his peers informed about how he orients towards the game. Simultaneously, there is some banter going on between Simon and Liam, where Simon on two occasions positions Liam as someone who does not play FIFA properly. Meanwhile, Liam, while opening his packs, responds to the banter, he disagrees with the categorisation as not proper gamer by orienting towards the surprise element of the opening of the random packs of football players as 'damn that's fun' (line 9) and on two occasions burst into singsong chants (lines 18, 20, 28 and 30) – which in turn charges a mood of excitement in the group. Noted not least, in the way in which Simon sings along and pounds his snuffbox on the table.

In Example 1 above we can see how the students are building alliances with each other; through which they are building a community spirit. To become a member of this community, it is vital that one can present oneself as an unsensitive person who can defend oneself verbally and to display humour, as a defence weapon, if one is 'attacked' for not being a 'real' FIFA player (on the video game console) as Liam is in the example, in order not to get marginalised. These strategies have in previous research been emphasised as crucial for vocational students in order to be included and accepted in the community of practice (see Ferm et al., 2018; Willis, 1977), and previous research also shows that prominent features in the construction of a professional identity in the Building and Constructing programme are attached to teamwork, comradeship, and loyalty (cf. Åberg & Hedlin, 2015; Berglund, 2009; Hedlin & Åberg, 2013; Lennartsson, 2007). These are also features that are heavily stressed in the policy documents' overall aims related to the Building and Construction programme, in which there is an emphasis on collaboration and the goals of becoming a team player, a part of a professional culture of working in a community with colleagues (Skolverket, 2011).

Thus, the building of a community is, very much, a continuously and ongoing project that the construction boys have to engage in (see Åberg & Hedlin, 2015; Asplund, 2010; Colley, et al. 2003; Kontio, 2016) in order to be a team player, and in the example we can see how the students use the smartphone, the FIFA18 Companion application and the Futbin application as a vessel for inclusion in a shared multimodal participation. So, in order to 'become the right person for the

job' (Colley et al., 2003), one can also say that one has to 'become the right person for the team'.

The excitement in the example above, driven in the interaction by the surprise element induced in the smartphone game, can also be understood in terms of happy objects (Ahmed, 2004, 2010). Excitement is relational; it involves 'relations of towardness' in relation to happy object, as seen in the ways in which the students turn their attention bodily towards the shared smartphone display, and the way in which Simon bodily reacts by jerking his entire body backwards in happiness, exclaiming the joy and excitement over Liam's opening of the packs.

The entire sequence of actions surrounding the opening of the packs in Liam's phone is a joint fellowship endeavour that is reinforced by the dialogue between Simon and Liam, with the support from Erik. To take part in the joint interest and negotiation of worthiness and respect in the smartphone interaction is crucial to team building and the process of becoming a part of the community of practice. This excitement can be seen as a joint orientation towards happiness, an expectation of getting good, rare players, that might have implications for gaming outside of the walls of the here and now, on the video game consoles at home.⁴ We can note a reciprocal direction, where games have found a way of stepping in and occupying a place in classroom interactions, as well as having impacts on gaming outside of the very room the students sit in. This obviously affects the students, their interactions and perhaps even in ways that we cannot tell from only looking at classroom interaction.

Male jargon in collective smartphone use

In this particular school studied, they have recently started a reading project, which involves having 20 minutes of silent reading every day in school. In the extract below we follow the students as they are supposed to read for 20 minutes. The teacher introduces and manages the assignment, but the reading project does not seem to win any legitimacy among the students of the class, as seen in their actions. A quick scan of the classroom sees that almost all of the students occupy themselves in their laptops or smartphones, many of them hide their phones behind their opened books, reading perhaps other things on their digital displays than what the school's reading project impels. This assignment opens up an opportunity for Simon to yet again engage in the FIFA 18 companion smartphone application – and yet again he turns towards Liam, whom he encourages to use the same application and do certain actions linked to different packs of random players.

Example 2: Is she retarded?

- 1 Simon: Liam gör Liga Santander (.) det är då får man bra
Liam do Liga Santander (.) that's when you get some good
- 2 Erik: gör den me:d barca å athletico
do the one wi:th barca and athletico
- 3 Simon: är det den# man får tjugofem(ton)pack i?
is that the one# you get twenty-five(fifteen)pack in?



- 4 Erik: nja du får e: sällsynt guldpaket# (>x<)
nah you get a: rare gold pack# (>x<)
- 5 Simon: ja fick (.) °vänta vart fan är den då°
I got (.) °hold on where the hell is it°
- 6 Erik: vänta va?# ((tar upp sin mobil)) titta vem som skicka till
wait what?# ((picks his phone up)) look who sent to



Becoming a construction worker in the connected classroom

7 mig (3.0)/((visar upp mobilen för Simon och sedan Liam))#
me (3.0)/((displays his phone to Simon and then Liam))#



8 Simon: Li:sa#
Li:sa#



9 Erik: Ellen Jonsson
Ellen Jonsson
10 (7.0)/((all four look at Erik's smartphone))
11 Liam öj är hon CP?# skriv "°ska du ha en kuk din hora°"
ey is she retarded?# write "°do you want some dick you slut°"



12 Simon: ut ur
out of
13 (6.0)/((Liam looks at Erik and Simon with a confused look. The
teacher approaches the group and listens. The boys smile.))
14 Aron: vad hände?
what happened?
15 Liam: den där my story du la ut [(.)] skrev du (.) "ur>
that story you posted (.) did you write (.) out>

16 Aron: [a:]
yeah:
 17 Liam: >garderoben" å så skrev hon "ut ur"
>the closet and then she wrote out of
 18 **(6.0)/((they look up towards the teacher who looks at them))**
 19 Teach: prova å läs nu
try reading now

Yet again, the students orient towards their smartphones, and the excitement related to the happy object of finding out together, right here and now, what lies behind the corner (open up now, so that we can see what players you get!). This is a joint social activity and it is done in accordance with the intensity of the lesson and school assignments at hand. The assignment is to read a book, but the students decide to do something different instead; for the students the lesson, the reading project, is given meaning through gaming and socialising through their phones, not through reading the books or texts impelled by the school.

The students jointly create an affinity space within the classroom in and through their smartphone use. However, Erik introduces a new topic on line 6, as he gets a message from a girl, displaying his smartphone and saying: 'look who sent to me'. Erik's turn raises the others' attention, and they are drawn towards Erik and his smartphone. Liam's response on line 10 is in line with previous research on masculinity, a jargon where certain specific hegemonic masculinity norms construct and position females as subordinate and as sex objects (Mac An Ghail, 1994; Pascoe, 2007), a jargon which also is very much connected to the process of becoming a team member in vocational education (Åberg & Hedlin, 2015; Ferm et al., 2018).

What the example shows is also that this sexist jargon is something that emerges without warning, and in one way it is also an expression of a normalised culture often connected to male professional identity in vocational education (cf. Åberg & Hedlin, 2015; Rosvall, 2011), and to be skilled in sexist and humorous language in interaction has been noted as fundamental in participating in similar male communities of practice in Swedish upper secondary schools (Kontio, 2016; Rosvall, 2011). This sexist jargon can also be described as work in which the boys, together and socially, construct and maintain homosocial relations. They orient themselves towards each other as males and happy objects (and against the female 'snapchat-sender'), thus reconstructing the gender order that Connell and Pearse (2002) highlight in which men dominate females. As quickly as the sexist comment emerges, just as quickly it leaves the space for a discussion where the boys together try to figure out the origin of the comment the girl has sent to Erik on snapchat. The example also shows how the teacher, as he approaches the group, marks – both through his bodily presence and by encouraging them to 'try' reading – that he has discovered that the boys seem to devote themselves to

projects other than those impelled by the teacher, and the school sanctioned reading project.

When the teacher then approaches the group, the sexist comment has already been dropped, which means that the teacher has no chance of forming an idea of the project that the boys have been involved in, other than taking part of the boys' fragmented talk about something that has been texted on Aron's 'my story'. What we can see here is therefore also an expression of what Asplund et al. (2018) show in a previous study on smartphones and schools; namely that students' smartphone use brings new challenges to teachers in gaining access to the processes that are set into play when students use their smartphones in the classroom during class.

While the boys are oriented towards the smartphone, they also mark a rejection of the teaching they encounter in the classroom. The school-sanctioned reading that the boys are asked to devote their time and attention to is nothing that engages them. Instead, they seek contact with each other by focusing their attention and their commitment to the smartphone; first by using the FIFA app and then towards the snapchat conversation Erik shows up for his classmates. As earlier studies on working-class boys and masculinities have shown, the creation of a counterculture in relation to school, is a way for these boys to strengthen their community and sense of belonging (Högberg, 2011; Willis, 1977), and research on male students in the Building and Construction programme also highlights that using male jargon and foul language in order to blend in with the group constitute core elements of occupational socialisation (cf. Åberg & Hedlin, 2015; Berglund, 2009; Högberg, 2009; Lennartsson, 2007).

Thus, once again we have an example of a situation where the construction of a community, a group affiliation, precedes the actual school work, and again this construction of a community of practice takes place through the boys' orientation towards the smartphone as a happy object. The smartphone is oriented towards something that, unlike the current reading project, can create joy, excitement and community, and thus becomes a tool for the boys through which they construct a professional identity where elements of the interactional co-construction of a team, male chauvinist jargon and an anti-study culture appears as central forces.

Disaligning with expected smartphone behaviour

We return again to the lesson where the students are working on sketches for a sustainable city. After having seen the assigned video on YouTube on their own (many of the students chose to view the video on their smartphone), the group reassembled around a table in the construction workshop. Simon had taken it upon himself to plot down the thoughts and ideas of the group on a large piece of paper. It is mainly two out of the seven students that take authority over what ideas get to be written down on the paper; Simon and Eric, who also happen to sit closest to the one laptop that they gather around. The laptop displays the

instructions for the assignment at hand, and Simon and Erik often turn their attention towards it. The rest of the group turn their attention and actions, gazes and their bodily stances towards Simon and Erik as they complete the task of writing down their ideas. It is at times a pretty intense discussion going on in the group as to what ideas should be written down, Eric and Simon's ideas however, dominate and are given priority. One of the students, Aron, tries initially to contribute with his own ideas and thoughts.

Example 3: *No turn it off I can't stand that crap*

- 1 Aron: alltså >vet du vad vi gör?< vi gör en villa (.) du vet vi
you know what we gonna do? We make a house (.) you know we
 2 (sopar en r k) (.) så får vi med det (.) å brevid villan
(sweep an r k) (.) than we have that (.) and next to the house
 3 vi ett företag du vet som Tesla en elbilar å sefn: (.) [å:
we a company you know like Tesla an electric cars and then (.)
[and
 4 Erik: [nej
[no
 5 stäng av jag ork[ar inte med den där skiten
turn it off I can't st[and that crap
 6 Simon: [A:ro:n#
[A:ro:n#



- 7 Aron: de ä för jag behöver tänka mannen (.) ska ni↑ tänka (.) då
it's because I need to think man (.) if you↑ need to think (.)
 8 kommer det å bli (drtt) ((pruttljud)) alltså
then it will be (drtt) ((fart sound)) you know
 9 ((the students next to Aron look at him and smile))

In lines 1-3, Aron presents a suggestion of how the group could develop its sketch, but gets interrupted by Erik in lines 4-5 who quite annoyed tells him to shut down the music that Aron plays on the smartphone's speaker because he cannot 'stand that crap'.

In the middle of Erik's turn, Simon follows Erik when he turns to Aron in line 6 and calls out his name in a rather accusatory manner. Through this action he displays support for Erik, and thus also reinforces Erik's rejecting comment.

What Aron then does is that he tries to save his face (Goffman, 1967) by initially explaining why he chooses to play music on his mobile phone ('I need to think man') and then goes to counterattack by criticising Simon and Erik for their inability to think.

The fart sound that Aron adds at the end of his turn may well be regarded as an attempt to ridicule his critics, and given some of his classmates' reactions (they laugh), the counterattack can be considered as successful. Aron's suggestion about what could be added to the sketch that the group work on however, does not gain any support, instead the discussion takes another direction, after which Aron also puts his earphones in his ears and continues to listen to music.

This is an example of how the smartphone sometimes is made into a disturbing object in classroom interaction by the students themselves. Here the contents, or the functions of the smartphone are no happy objects. Despite Aron's displayed ability to handle the verbal attacks from Erik and Simon, which is one of the core abilities in order to blend in with the group in many male-dominated vocational education programmes (Asplund, 2010; Berglund, 2009; Högberg, 2011; Kontio, 2016; Korp, 2011) it is obvious that his mobile use excludes him from the group; he simply does not use it in the way that wins legitimacy, and it violates the agreed upon norm. Not playing by the rules concerning how the smartphone is expected to be used by his peers when working together on the assignment, the smartphone use in this excerpt (in contrast to previous examples above) results in exclusion for Aron from the group assignment, the peer interaction, and also from the (working) team. According to Ahmed, an object that recalls as being happy does not always stay in place (Ahmed, 2010, p. 23), and what we can see in the example above is an expression of this. It is a continuous work of maintaining an object as a happy object, and this is also connected to local construction of a community of practice (see also Åhlund & Aronsson, 2015). One has to use the smartphone according to the norms and conventions that are constructed and reconstructed by the students in the interaction here and now in order to be a full member of the (working) team.

Discussion

In this study, we have made microanalyses of the social dynamics between male students in the Building and Construction programme in vocational classrooms. We can note, by looking into the very minute details in interaction, from turn to turn, how features of identity constructions previously found in research on work places and during workplace-based learning (Ferm et al., 2018) is indeed produced already in the classrooms of vocational education. Through the methods used in this study, we have been able to point out how these identity constructions are being made here and now, and the role the smartphone plays in these processes; highlighting traits found by previous research on male students

in vocational education, such as the use of male jargon, foul language and a counterculture in relation to school assignment (cf. Åberg & Hedlin, 2015; Berglund, 2009; Högberg, 2009; Lennartsson, 2007; Willis, 1977).

The teaching that the vocational students meet in schools, as well as in workplace-based learning, is to a large extent characterised by the apprenticeship's historical traditions where teamwork, loyalty to work colleagues, and orthodox masculinity ideals are valued higher than the professional knowledge, and by extension producing an anti-school attitude among the students. These are processes and traits that we have had fairly good insight to through the research done in the field (see e.g. Berglund, 2009; Ferm et al., 2018; Kontio, 2016). In this respect, our study is no exception. By contrast, through our approach and by directing our analytical focus on building and construction students' smartphone use in the connected classroom, we have been able to show how the smartphone is made into a resource by which the students stage these processes in their construction of a professional identity.

In their exploration of the ways that objects feature in the situated, embodied, and spatial circumstances of everyday social interaction and activity, Nevile, Haddington, Heinemann and Rauniomaa (2014) distinguish two overarching themes; 'objects as situated resources' and 'objects as practical accomplishments'. As resources, objects are used by people to interact with others and contribute to developing processes and trajectories of social interaction. As practical accomplishments, objects are oriented to as emerging in and through trajectories of social interaction. Based on this distinction, the processes that take place in the first two examples in this article are processes where the smartphone is used as a situated resource, in that they show how the boys interact with the smartphone, and use the smartphone, to interact with each other. When Simon orients to the smartphone (example 1 and 2) he manages the interactional demand of not only getting Liam's attention (and then the other participants) but also getting him involved in the FIFA 18 Companion smartphone application.

However, in both these examples we can also identify processes where the boys orient to the smartphone as emerging in and through social interaction. According to Nevile et al. (2014), in such processes, participants 'handle and shape objects to create shared realisations of what objects are, or can or should be, and so how they might be perceived, understood, and treated' (p. 14), and in our analysis we have shown how the boys, together and socially, orient towards the smartphone and the FIFA 18 Companion app, their features and affordances, as happy objects (Ahmed, 2010). The smartphone as a practical accomplishment is also highlighted in our last example (example 3). Here, Aron's use of his smartphone is perceived as something that violates the group's established norm for when and how a smartphone can or should be used, and the smartphone's significance and value as something disturbing (and not as a happy object) thus emerges in and through the social interaction.

In the article we have shown how the smartphone is used by the boys as a resource for establishing contact with each other here and now, and through the applications and social media provided by the smartphone, the boys find common areas of interest which they can explore together. These are interests that the teaching in school, by default, cannot compete with. Through the students' collective orientation towards the smartphone as a happy object, the boys construct a community in which inclusion in the group takes place provided that the smartphone is used correctly, that they share the interests that it is oriented towards and that one can handle the tough jargon that is constructed in interaction. What we can see in the examples is thus how the collective use of the smartphone offers more, and new opportunities for building and construction students to create a local community of practice (Wenger, 1998), and how the identity-constructing processes that take shape when the boys orient themselves towards the smartphone as a happy object are related to the student's future vocational identity as building and construction workers as well as explicating an anti-school attitude. In order to become a full member of this community of practice, i.e. this working team, one has to accept the tough masculinity norms, use a raw and sexist male chauvinist jargon, and openly display a negative or, at the very least, a distancing attitude towards the academic teaching at hand.

However, the smartphone does not only offer more and new opportunities for the students in their identity work, but it also helps to strengthen the community that the boys establish in the interaction, while also making it difficult for others to become full members of it. It is not only the smartphone itself that is made into a happy object, but also the applications – FIFA 18 Companion, Futbin, and Snapchat – are oriented towards as happy objects; these are apps around which the boys can engage in for them more fun and exciting projects than the teaching that is currently conducted and in which they are expected to participate. The collective elements of the boys' smartphone use, and the explicit will to engage their classmates in collective smartphone use also make the solidarity, the community itself – i.e. the establishment of a community of practice (Wenger, 1998) – made into a happy object to which the boys attach affects to. Shared joy becomes double joy, and in that sense, we are faced with situations when the boys, through their collective smartphone use, make several happy objects relevant at the same time in the interaction.

With Ahmed's work (2010) in mind, we can also see this as processes that constantly strengthen the strong links between the boys; the more such connections to different objects (which can be both physical and social) that are established and which are focussed in the same direction, the stronger the solidity becomes, Ahmed says. Thus, the collective use of the smartphone, more often than not openly vis-à-vis the teaching and intended learning outcomes, sets in motion processes through which the boys work hard with the aim to fit in, to become a part of a group, which research shows is a core element in the development of a

professional identity among (male) vocational education students (Berglund, 2009; Ferm et al., 2018). But, as Ahmed also reminds us, these social dimensions also mean that this strong solidity makes it harder for others that do not enjoy pleasure or joy from being close to the objects that are considered to be good by others, to shatter it. Thus, those students who are not comfortable with this specific vocational work culture that are established through the use of the smartphone risk becoming alienated and excluded from gaining access to the community of practice.

As noted by Åberg and Hedlin (2015, p. 536), such processes produce social inertia 'making it hard for the Building and Construction programme to become more accessible to people who inhabit bodies other than the comfortable ones' (see also Holth, 2014). In the light of the many connections between different objects that are made possible and actualised by the smartphone usage, the access to the Building and Construction programme for those people who do not want to, or cannot live up to and embody the norms and distinctions that are constructed and reconstructed through the use of smartphone during classes, appear even harder.

It is important to emphasise here, that the video recordings provide for micro-level analyses of the students' smartphone use, which give insights to actions that we, as observational researchers, were not able to detect whilst being in the classrooms. The students find strategies for smartphone use that neither we nor the teachers could see with our eyes; phones being hidden behind books and bags, phones being picked up when moving between classrooms etc. The methods chosen here have been crucial in order to detect and properly analyse these hidden micro actions.

Highlighting the use of the smartphone in the Building and Construction programme through the lens of Ahmed's ideas of happy objects (2010) and the concept of community of practice (Wenger, 1998) can deepen our understanding of how these specific norms are negotiated and constructed in vocational education classrooms, and how students bring their own digital devices to school, and use them as resources in their construction of a professional vocational identity. By studying how this is done in the interaction, there and then, and what happens when particular norms and distinctions are challenged, we can also identify potential possibilities to break these stereotypical norms and patterns, given that we gain increased knowledge of the collective use of smartphones in traditional male-dominated vocational programmes.

Endnotes

¹ *Connected classrooms*, financed by the Swedish Research Council, (Dnr: 2015-01044, <https://www.kau.se/csl/forskning/forskningsprojekt/uppkopplade-klassrum>).

² The examples presented and analysed in the following sections are selected from a larger video-ethnographic study on smartphones in upper secondary classrooms, focusing on students' use of different social media, applications, search engines and links, and the role these play in relation to the literacy practices of the classroom. The complete material consists of approximately 70 hours of recordings of teaching activities including 1–4 focus students in each class in a total of 9 upper secondary school classes.

³ All of the names in this study are made up.

⁴ This also relates to the pop cultural phenomenon that is opening packs and posting your reactions in a video on YouTube. Videos that have millions of views and followers. See for instance: <https://www.youtube.com/watch?v=6w43e7eeHeU>

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APPENDIX: TRANSCRIPT NOTATIONS

[overlapping utterances, whether at the start of an utterance or later
]	indicates a point at which two overlapping utterances both end, where one ends while the other continues, or simultaneous moments in overlap which continue
(2.0)	length in seconds of a pause
(.)	a short untimed pause (less than 0,2 seconds)
(())	contextual description and accounts
(x)	an uncertain hearing of what the speaker said
<u>Word</u>	stressed syllable or word
°world°	degree signs indicate that talk is markedly quiet
>word<	left/right carats indicate that the talk between them is compressed
:	a prolonged stretch
=	continued speech
-	hyphen after a word indicates a cut-off or self-interruption
↑↓	arrows mark rising or falling intonation
#	indicates the exact moment at which the screen shot has been recorded