



Everything
Without the Teacher

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Content

Introduction

Going to school is a paradox

- page 2 -

How to develop self-efficacy and intercultural competence in
English language through a playful and inspiring approach to learning

- page 3 -

Social interplay

- page 4 -

Intercultural competence

- page 4 -

Technology

- page 5 -

Whatever good things we build
end up building us

- page 6 -

How learning through Minecraft
becomes purposeful

- page 9 -

Conclusion

- page 16 -

References

- page 17 -

Introduction

Going to school is a paradox

Children enter the classroom with different competencies; thus, they respond to the content they meet differently (Löw, 2017). The framework of the school is intended to incorporate these diversities; yet, children with learning difficulties are included in a context that does not include the means to accommodate them. These children often end up being physically present in the social context without being acknowledged for their individual learning process (Oettingen, 2019). The child is dependent on being acknowledged to feel motivated. Motivation is about an individual's self-confidence to creating results, but when the child is not being acknowledged, it develops a low degree of self-efficacy (Bandura, 2012).

Understanding a child's behaviour is concerned with decoding its intentions and invitations to the surroundings; thus, realizing who and what is invited for. If the child's intentions, however, are interpreted as deficiencies rather than abilities, the child experiences that attempting to reach out to its surroundings leads to the child being identified as the problem (Hertz, 2010). Being a problem is not very motivational to learning.

The school is a coercive institution (Kant, 2017); a framework where the child *must* learn to interact and develop without the opportunity to choose its classmates or teachers. The individual child is *forced* into a social context where it is dependent on being recognized to develop self-efficacy to motivate itself towards progression. Not only does the social context represent the scene where individuals learn to understand themselves (Löw, 2017), the brain develops *because* of social interplay and it is therefore necessary to create an environment that instils the desire for social interplay by creating better contexts where the potential of individual children is noticed and brought into play (Hertz, 2010). The question is: how is this possible with circumstances working against and not with the individual child?

The aim of the school is to instil the desire to learn more (Ministry of Children and Education, 2019). It is therefore a paradox that the endeavour to create an inclusive framework is involved with strategies that fail to acknowledge the children it is intended to include – that some of these children, as a result, develop low self-efficacy and end up feeling demotivated. The social context then has a disengaging impact on children with learning difficulties and, consequently, stalls their social- and academic development. When the purpose falls silent, education is transformed to a zone of alienation (Oettingen, 2019).

In the attempt to create better learning contexts, it is necessary to shed light on the paradoxes involved with the social context where learning and motivation takes place. Negation does not dissolve these paradoxes; however, it aims to improve the pedagogic methodology and thereby cultivate a reflective approach to these paradoxes (Oettingen, 2019).

"The reality from each child's perspective looks different" (LEGO, 2017). This research intends to create a learning context where children are equipped with the tools necessary to overcoming learning difficulties, and thus, develop self-efficacy through activities that inspire them to explore and create.

Understanding the interconnection between social interplay, intercultural competence and technology becomes a central part in this change; it becomes evident to challenge motivational strategies.

How to develop self-efficacy and intercultural competence in English language through a playful and inspiring approach to learning?

How children learn to understand themselves and develop self-efficacy in a context where social interplay is a paradox pose a relevant question to learning. Children are dependent on meaningful interrelations to develop the skills they need to participate in a democratic society and without these skills, they have no social capital (Jørgensen, 2009). The awareness of this notion is relevant because the school is to conduct learning in "a spirit of intellectual freedom, equality and democracy" (Ministry of Children and Education, 2019).

Cultures are changing. With technology, modern society has become dynamic and interconnected. It is an irreversible process to which we must adjust (Klafki, 2001). At the same time, technology is an unquestioned cultural norm (Steiner-Adair & Barker, 2013) that requires continuous re-skilling and intercultural competence. The skills needed to participate in society are in constant and rapid change which creates a need for learners to acquire skills of adjustment and knowledge of how social groups and identities function to be able to understand themselves and others (Byram, Gribkova, & Starkey, 2002). According to research, children will face continuous re-skilling and therefore must be equipped with tools to help them navigate their own future (LEGO, 2017). Intercultural competence is involved with sharing knowledge and discussing opinions and the everchanging technological culture enables the teachers to acquire skills with their learners, thus they are not the sole source of information (Byram, Gribkova, & Starkey, 2002).

Students must be empowered to take an active part in the democratic society learning to interpret themselves and their cultural context when interacting with and producing media (Svarstad, 2018). Consequently, social interplay, intercultural competence and technology have become intertwined factors impacting the development of the individual child.

The school is to "promote the well-rounded development of the individual student" and create a framework where working methods lead to the development of confidence in own possibilities (Ministry of Children and Education, 2019). It is therefore relevant to teaching, and the framework and context where learning takes place, how these factors can interrelate in the supportive and purposeful development of the child such that learning may not be subjected to a social context where individual children find themselves alienated, disengaged and demotivated.

Child psychiatrist, Søren Hertz, stresses that behaviour and its possibilities is understood in the context where it unfolds. Providing a context where the child can develop is involved with deconstructing the two counterpoints: **abilities** and **difficulties**. The problem with modern society, however, is the culturally determined either-or thinking that eliminates the dynamics between these two counterpoints, removing the opportunities for development and 'a way out' (Hertz, 2010). In this view, deconstructing the context where learning takes place becomes essential to creating possibilities.

The necessity to reflect on social interplay and the interrelated factors to learning, thus, becomes apparent in developing intercultural communicative competence to bridge the gap between own culture, other cultures and cultural groups (Svarstad, 2018); skills that the child needs to develop in preparation for the future.

Social interplay

The European Commission emphasise that the teacher is the key figure in students' learning (Daryai-Hansen, Gregersen, & Sjøgaard, 2014). However, being 'the key figure' is too abstract and vague a definition, thus further clarification is critical to avoid misconceptions of the role of the teacher.

John Hattie's percentage scale for effective teaching concludes that it is the student's relation to the teacher that builds on confidence, acknowledgement and challenges that represents the highest percentage (Oettingen, 2019). This conclusion emphasizes the paradox with social interplay and the narrow context it is being fit into: the classroom.

Psychologist, Ole Löw addresses a problem with the student-teacher relation as a unifying element in a classroom where the students meet the content differently (Löw, 2017). Because learning is distributed between people, language and agents, social interplay cannot successfully be confined to a classroom with regulations set by the school and the teachers. We are surrounded by dialogues, books and culturally created means of interaction, such as digital communication, and therefore social interplay is not restricted to the direct interaction with others; rather social interplay is a cultural dimension taking place in the past, present and future. In other words we do not need to be in a physical context with others to learn and therefore the focal point of social interplay does not need to be restricted to the classroom (Löw, 2017).

By viewing social interplay in a cultural context, the role of the teacher changes from being unifying to intersubjective where the teacher-student relation focuses on creating an interest in the child's intentions (Löw, 2017). With his point of view, Löw connects the importance of understanding the child's intentions as proposed by Hertz (2010). His differentiated view on social interplay opens up possibilities to expand learning beyond the classroom, where setting the scene becomes an important method in the child's successful development (Löw, 2017).

When Hertz (2010) concludes that the brain develops because of social interplay, Löw's (2017) perspective on social interplay, as a culturally determined aspect not confined in the direct interaction with others, becomes highly relevant to learning.

Intercultural competence

The aims of the school are to prepare students for the future by providing them "with the knowledge and skills that will prepare them for further education and training" (Ministry of Children and Education, 2019). As concluded, technological advances represent a new culture where children must be empowered to take an active part, learning to interpret themselves and their cultural context through media (Svarstad, 2018). This preparation involves intercultural competence where children develop the competences that help them interact with interlocutors (Byram, Gribkova, & Starkey, 2002). Thus, the development of social skills through media is required to prepare students for the future.

The school must "contribute to their [students'] understanding of the interrelationship between human beings and the environment" (Ministry of Children and Education, 2019). Research suggest that students expect to work with autonomy and choice; that learning can be personalized for every student despite their language skills or learning difficulties – however, it requires of the teacher to switch to a more coaching role (Microsoft & McKinsey & Company's Education Practice, 2018). This view is in line with the intersubjective approach to learning proposed by Löw (2017). The coaching role at the same time implies an interest in the individual student's intentions and needs as it involves acknowledgment of the student's progression. Teachers should therefore build on topics interesting to the students (Daryai-Hansen, Gregersen, & Sjøgaard, 2014).

With social interplay integrated in the technological culture, the development of intercultural competence, thus, becomes a necessity if children are to develop into democratic citizens with a readiness to challenge stereotypes and relativise their own values when sharing knowledge and discussing opinions through media (Byram, Gribkova, & Starkey, 2002).

Technology

The great concern with technology is the danger of the entertaining and monetizing screens that swallow the minds of our children (Steiner-Adair & Barker, 2013). A lack of critique of digital sense has led to boredom and academics lacking behind (Oettingen, 2019). Many computer games are created in a way that makes the user addicted to playing it; addiction that potentially changes how the brain functions. The danger occurs in the easy to perform and rewarding tasks where the user, through incitements, becomes addicted to playing the game in constant need of stimuli (Rashid, 2017). In this view, the implementation of technology in the learning environment needs to undergo careful scrutiny. We cannot reverse technological advancements, but we *can* remain critical of the use and application of technology.

John Hattie's percentage scale shows that the effect of computers in successful teaching has no effect at all (Oettingen, 2019). Just like the whiteboard in itself has no effect in successful teaching, the effect of computers depends on the pedagogical approach to incorporating technology in teaching. The school does not evolve because of access to new teaching aids and resources – on the contrary, if the school does not remedy the challenges following the changes in society, it is no longer adapted to the child's needs (Freinet, 1980).

Protecting children from digital media only creates a cleft in their socialization process and identity. If the end result is to prepare them to being able to participate and demonstrate mutual responsibility in a democratic society in accordance with the formal aims, it is necessary that education integrates the very identify that children otherwise acquire parallel with the school (Tuftte, 2013). Although, "technology cannot provide the unique human dimension of a relationship essential for healthy neurological and psychological development in human children" (Steiner-Adair & Barker, p.18), intended learning can provide material which extricates already obtained skills and transcends the expression of those skills to become more meaningful (Dewey, 2005).

According to research technology can engage the disengaged and extend education outside the classroom – change and uncertainty is going to be more pervasive which is why social-emotional skills are important. Technology plays an important role in meeting these needs (Microsoft & McKinsey & Company's Education Practice, 2018). Effective learning can help children navigate the future (LEGO,

2017) so, our education system needs to prepare students in a different way where teachers shift to a more coaching role, as technology advances.

Summary

Effective teaching concerns the student's relation to the teacher that builds on confidence, acknowledgement and challenges. Where the classroom, as the focal point for social interplay, results in the disengagement of individual students, technology represents a scene that allows the teacher to step into a coaching and intersubjective role that changes social interplay to being culturally determined rather than context-centred. Culturally determined social interplay accommodates the student's desire for autonomy and challenge, however, also creates a need for intercultural competence. Ultimately, technology is irreversible. Children need to develop digital sense in a society where the skills of today have changed tomorrow. The successful application of technology in teaching depends on the pedagogical approach to incorporating technology and digital sense into learning.

**Whatever good things we
BUILD
end up building us**

~ Jim Rohn

Motivation is concerned with strengthening one's self-efficacy by creating incitements to be able to 'hang in there' until the goal is reached (Bandura, 2012). The four seventh graders I had invited to participate in the two-day learning session did not have incitements to *hang in there*. Halfway through the first day, they began to discuss their experiences and feelings with school. I did not participate in this discussion; however, I was surprised to hear how clearly and concise these students were able to define how going to school was an altogether negative experience to them. They spoke as if they had been waiting for an opportunity to be heard, and I therefore asked them to write down their immediate thoughts.

The following was written by one of the students following their discussion:

"Skolen er ligesom et fængsel hvis det ikke er noget for dig fordi du har alt bestemt på forhånd og ved lige hvad du skal til at lave man har endda et skema over hvad du skal hele året frem Mandag, Tirsdag, Onsdag, Torsdag, Fredag også har du fri i 3 dage også er det det samme igen. Prøv at tænk engang hvis du ikke har succes med hvad du laver så vil det nok aldrig være sjovt og den måde man lærer børn på som faktisk er fremtiden, så kan du ikke lære alle 24 bpå engang med den samme læring nogen har altså brug for en forklaring mere eller en sjovere måde at lære det på (som f.eks. minecraft) så de ikke bare går død i det. hele folke skolen handler om du skal huske noget også skal du skrive det over på en test det vil sige at hvis du har svært ved at huske/lære så for du dårlige karaktere også er det som om man bliver et omvandrede tal også er der nogen steder du ikke kan komme ind fordi du er et for lavt tal. Den eneste grund til skolen er som den er lige nu er fordi at politikorer vil have os til at være et 12 tal fordi så fordi en større penge check. #facts Folke skolen er det sted hvor kreativitet bliver dræbt"

The students' thoughts clearly display how expectations have a negative impact on students if they lack the competencies or do not feel inspired to work with the tasks in the classroom. Professor Emeritus in psychology, Albert Bandura, explains that while a high degree of self-efficacy results in the individual imagining positive scenarios, a low degree of self-efficacy will result in failure scenarios (Bandura, 2012).

According to Ryan, Williams , & Mercer (2015), physical and emotional states are significant and key factors to learning. The school is to endeavour to develop a framework where working methods build confidence and enable students to take action (Ministry of Children and Education, 2019). The mean to accomplish this is motivation – a feeling of mental imagery coming from a learner's sense of autonomy, relatedness and competence (Ryan, Williams , & Mercer, 2015). In other words: if the feeling of a positive mental imagery remains absent, there is no engine to spark motivation since motivation depends on an individual's self-efficacy.

The four seventh graders thoughts and feelings of the school as an imprisoning learning environment did not stand unsupported. According to research, learning is in fact reduced to the social context of the classroom without taking into account the individual student's competencies – a good life is equal to getting good grades (Canger & Aagaard, 2016).

The students' individual learning difficulties were unknown to me from the beginning of the learning session. Both John Dewey and Jerome Bruner emphasize that intentions are only understood in the context where they unfold and George Herbert Mead stresses that our awareness of our self is a result of other people's perspectives and reactions to our behaviour (Löw, 2017); the mirror neurons quickly install what other people say and think about us. Even if the child has been given a diagnose, that diagnose is only given because someone felt the child's behaviour so intense that it created a need to explain that behaviour (Hertz, 2010). With the adults being the cultural mediators, the child becomes an actor on the stage they have set. The interaction that develops between the child and the adult is dependent on how the adult understands the child (Löw, 2017). In other words, these four students

had had their learning difficulties installed in the context facilitated by their school, teachers and classmates, and thus the social interplay contributed to reinforcing these difficulties. If the context, however, were to change, the behaviour perceived as learning difficulties might diminish in the light of the individual student's abilities; therefore, moving the students temporarily out of the social context that had a negative impact on their learning was necessary to reset their minds and start strengthening their self-efficacy.

As argued earlier, social interplay not only exists between individuals but also through the interaction with books and digital media. This perspective enables a change of scene and a change of context that moves social interplay into a virtual dimension – a learning environment that allows the individual student more autonomy through a playful approach. As mentioned, careful attention to the approach to using technology needs to be applied in every aspect of learning.

Playing is not only fun, children are born with natural skills to explore and learn through play and thus, "play needs to be redefined as a central arena in the minds and actions of those influencing children's lives" (LEGO, 2017). Minecraft Education is already a familiar gaming platform representing values that embrace change (International School uses game-based learning to raise student engagement and achievement, 2018). According to Richard Ryan and Edward Deci, intrinsic motivation is a natural readiness to learn and explore. It is acting on one's inherent interests that one grows in knowledge and skills. They conclude that Intrinsic motivation exists in the relation between individuals and activities (Ryan & Deci, 2000). It is this relation which is interesting to motivation: the individual student needs to feel driven towards a given activity to create the connection. The activity therefore needs to relate to the student's own interest.

Children, who are not involved in meaningful activities, will not be susceptible to education. The work becomes the driving force when children enjoy what they do and develop eagerness to experience and explore; thus, children must be given the freedom and autonomy to work with the tasks interesting to them – not the tasks in the interest of the teacher (Freinet, 1980).

Freinet's point of view is essential to understanding the paradox with motivational strategies. Where Freinet focuses on the use of the child's interest in the activity to create meaning, motivational strategies are involved with creating meaning around an activity, when effort becomes meaningless and thereby seeking to pull the child towards an activity using encouragement to create a purpose doing the activity.

Focusing on motivational strategies to create purposeful learning to a child that feels no purpose with learning an activity, however, becomes a paradox. In fact, the idea that motivation creates purpose seems a paradox in itself. The reason being that motivation derives from purpose and not the other way around (Secretan, 2004).

Motivation is concerned with sustaining effort over time (Ryan, Williams, & Mercer, 2015; Bandura, 2012). However, without a sense of competence and acknowledgement, as proposed initially, effort becomes meaningless. Where motivation is something that compels an individual to take action, purpose is *that* something that drives the action. Without feeling a purpose, it is difficult to be compelled to take action, because there is no force driving the individual towards meaning. In this sense, children need a purpose – a vision to create motivation; they need a mental imagery of competences leading to results.

Stephen Ryan, Marion Williams , & Sarah Mercer also reaches the conclusion that motivation has to do with visions – an environment where potentials can unfold. They agree that: "it is the visions operating under certain facilitating conditions that create a motivating ideal L2 self" (Ryan, Williams , & Mercer, 2015, p. 117).

When we do not trust in our own values, we need someone to connect us to the activity through motivation. However, when we *do* trust in our own values, the individual is doing something from intention because they trust their own values (Secretan, 2004). Lance Secretan distinguishes between motivation and inspiration; the latter being linked to purpose. The natural readiness to learn and explore needs to come from purpose rather than motivation.

Secretan concludes that the key to long-term performance lies in a transformational commitment not to motivating people, but to inspire them because inspiration is an inner feeling; a driving force, while motivation is a pulling force (Secretan, 2004).

It is a paradox that while students request more autonomy, the means through which they understand themselves largely depends on how the teacher interprets them. In the attempt to solve this paradox, the teacher must therefore step into a co-ordinating role of producer or facilitator whereby the teacher allows the students ownership of the activity (Williams, 2013).

How learning through Minecraft becomes purposeful

Children must experience agency and be supported rather than directed. Learning through Minecraft is playful learning promoting iterative thinking; the ability to discover new opportunities and think in possibilities (LEGO, 2017).

A key aspect to successfully implementing Minecraft Education in learning is to utilize that students are more experienced using the game than the teacher. The role of the teacher thus becomes to put everything into context and help students make sense out of the subject. "Minecraft Education captures students' attention in new and innovative ways while harnessing the effort and creativity students naturally want to put into an immersive gaming experience" (International School uses game-based learning to raise student engagement and achievement, 2018). "Meaningfulness is when children can relate new experiences to something already known" (LEGO, 2017).

An individual's experience of self-efficacy is either strengthened or undermined depending on the experience of having the necessary competencies to perform a given task (Bandura, 2012). The four students were all familiar with Minecraft, which therefore presented an advantage to the learning circumstances where my role as teacher became less controlling. "When the teacher's role is less authoritative, learners begin to act as decisionmakers and directors" (Williams, 2013).

The four students were used to *playing* Minecraft as entertainment; now, my job, as their teacher, was to bring content into this playful context and turn it into purposeful learning.

By transmuting gaming into a purposeful learning context, the value of the media changes. With its possibilities to create and visit different cultures virtually, Minecraft is a collaborative platform that sets the scene for awareness and understanding of other cultures (Microsoft & McKinsey & Company's Education Practice, 2018), thus to navigate this platform is involved with intercultural competence. One of the aspects of intercultural competence is that students develop new attitudes as opposed to acquiring more knowledge (Byram, Gribkova, & Starkey, 2002).

An interesting factor was, that the students had not come because they felt motivated to learn or acquire more knowledge – they had come because they were in need of a new way that would inspire them to develop new attitudes towards learning. In fact, they did not know what to expect from these two learning sessions. They were concerned that they would be asked to use the blocks in Minecraft to do addition and subtraction, however, they hoped for something more fun. Some of their classmates had said that *because* it was going to be fun, they would not learn anything. And when the students had told one of their teachers that they were going to participate in a two-day experiment in Minecraft Education to cope with their learning difficulties, the teacher had responded: "I might as well say it now, it is not going to work – at all."

Teaching requires of the teacher an interest in the student's intentions and invitations (L w, 2017). However, when children are being defined and confirmed through failure, it is no wonder that their self-efficacy is increasingly low.

The students' intentions had clearly been misread. To change this negative spiral, they needed to be defined by a vision that they were capable of overcoming the obstacles that, back in the classroom, prevented them from progressing. These children therefore needed a rediscovery in values, and that required an injection of inspiration.

On its basic level, Minecraft evolves around creating structures out of building blocks. I wanted the students to create something valuable that they would desire to talk about. I had prepared that they were going to build an iron age house. As mentioned, as a teacher, one does not need to be an expert in gaming to use it as a context for learning. I had no previous experience with gaming; however, I had spent some time experimenting with building iron age houses in my preparation for the two learning sessions. Teachers are to provide material that learners may explore and analyse rather than learn the information in them (Byram, Gribkova, & Starkey, 2002). The students were not going to learn about the iron age – not in a two-day session anyway – they were going to work with the structures and thereby open up their interest towards the iron age through creation.

By the year 2030, occupations will increasingly require skills such as creative problem-solving, collaboration and management (Microsoft & McKinsey & Company's Education Practice, 2018). This poses an interesting aspect to the methods of teaching. Since technology is rapidly advancing, the skills acquired today will have changed tomorrow. This is why it is necessary for the approach to learning to change. The school must prepare students for the future (Ministry of Children and Education, 2019), and since the skills required in the future is everchanging, students must learn to adapt to these changes.

Problem solving became evident already at the beginning of the first day, when it turned out that the students could not log in to Minecraft Education Edition. However, the students were all familiar with Minecraft and two of the students had their own accounts in the JAVA version of Minecraft.

No teacher wishes to be in a position where the lesson falls apart because technology fails, and this may be a reason not to rely on technology in the first place. But technology failing is part of living in a society with advancing technology where the average person is not equipped with the technical skills to solve technical issues. What the average person might be capable of, though, is problem solving.

I had had no prior opportunity to testing the students' logins and had to rely on the assurance I had been given that their logins would work. However, we had a problem – a big problem.

Being unable to log in, we could not use Minecraft Education Edition as planned, thus the whole project would collapse. On the other hand, to develop problem-solving skills, one must have a problem. The bigger the problem, the better the chance to develop problem-solving skills.

Unlike me, the students knew what to do. Within twenty minutes, they managed to resolve the problem by collaborating (without me). While one student took charge of coordinating the situation, I was left out of the game – and that was okay. My part was to structure the stage for learning, not to teach the students technology.

According to CASEL, social-emotional learning is to, "enhance their capacity to integrate skills, attitudes, and behaviours to deal effectively and ethically with daily tasks and challenges" (Microsoft & McKinsey & Company's Education Practice, 2018). The students were driven to solve the issue and had come up with a solution. Together, as a team, they took initiative and managed to each install the game version of Minecraft and set up a server, so that they could join the same virtual world as required.

The unforeseen event had resulted in the students getting an opportunity to bypass the teacher and solve the matter themselves. Already at this initial stage, Minecraft proved to be a success.

The students now watched a [video](#), I had prepared. The video featured my own construction of an iron age village that would show the students how I expected them to build and construct the houses. They also received a drawing of the iron age house they were going to build and got started. What they did not received was information about the iron age, and we had no prior group discussion about how to approach building the house. The reason being, that the key to successful learning in Minecraft is to step into a facilitating role and allow the students more autonomy to completing the task.

The same student who had coordinated setting up the server, began coordinating the building project by assigning roles to the three other students. Two students would clear an area, flattening it out, while the other two would choose the materials to build from. The assigned roles seemed to work for each student.

After finishing the layout, the students were assigned new roles. These roles became apparent as the students began to see the qualities and skills of their team members in the initial stage; thus, two builders were assigned, one interior designer and a coordinator.

It was interesting to see how the roles changed as the construction of the house progressed. The previous coordinator changed to function as builder and motivator, praising the others for their work. The interior designer quickly decorated the house and changed his role to Iron Age 'expert.' This student had previously visited an iron age village and now he drew from this experience to tell his team members how a village was constructed with gardens and farms.

One of the students was given praise for creative and precise building skills. The team members trust in his skills allowed him to take charge of the quality assurance of the entire project and a project manager had come to be.

All four students were deeply engaged in the building project. One house soon turned into another and a small village emerged with farms and animals all set in the iron age style. The power of learning through play is the mental immersion and ability to stay focused while actively imagining how pieces go together (LEGO, 2017). The positive imageries they had not been able to construct in the physical

environment of the classroom were now being developed and built through a virtual landscape where they collaborated through each their avatar. The students were in a state of flow.

According to Hans Henrik Knoop, flow is created in gaming where the game is manageable and where immediate rewards are received for successful actions (Knoop, 2005). Here is a vast difference between Minecraft Education and other games. In Minecraft, the reward does not come through the completion of stages or levels accomplished, rather the reward is concerned with the satisfaction with one's own creation.

While the students were building, they suddenly began to reflect on their work in Minecraft compared to the tasks they did in school. The sudden reflection occurred, as the students became aware that they had started to gain an interest in a subject (the iron age) that normally would have had a demotivating impact on them at school as they would have to struggle with reading and writing, facing feelings of failure as they would be unable to keep up with their classmates.

At this point, the students informed me that two of them were dyslexic while the other two had problems with concentrating. They had been engaged in work for three hours non-stop.

The sudden interest in the iron age had to do with creation. Because they had to relate to the iron age through the process of building, they were *forced* to find means to gain knowledge in the construction, material, interior, exterior etc. Recent research shows that students are more motivated to participate in school activities and projects with Minecraft. They feel it is easier to learn and cooperate through Minecraft (International School uses game-based learning to raise student engagement and achievement, 2018).

Intercultural competence is involved with sharing knowledge and discussing opinions. Students need skills of comparison, interpreting and relating, discovery and interaction (Byram, Gribkova, & Starkey, 2002). The fascinating part about the students' discussion, while they were engaged in work, was that they used very little energy in expressing their negative experiences with school and much more effort in expressing what they found interesting and useful about learning through Minecraft.

The main topic of their discussion was creativity. They were all of the opinion that creativity was none existing at school. This became apparent to them as they worked in Minecraft and found themselves being creative and learning something through the process of creating.

The students' conclusion is critical and finds sustained grounds in research as creativity is linked to intellectual development – not separated from it (Burn & Durran, 2007). Every third student experiences learning in school being monotonous and uninspiring (Oettingen, 2019).

The four students were in a state of excitement. They suddenly experienced how they might be able to overcome obstacles through a learning environment that allowed them to be productive through means of creativity that appealed to the special needs they had. They were eager to find a way to cope with learning. These were not kids who did not want to learn – they just asked for a way to learn that did not bring them down by constantly demanding them to learn through methods that were too hard for them to cope with. Building in Minecraft created a workflow where they felt their interests met and acknowledged.

Flow is about being so deeply involved, focused and concentrated in an activity that students lose track of time and are able to move beyond own boundaries. It is a state of challenge that occupies all the

mental energy available. The person is so emotionally involved that they remember what they are involved with (Knoop, 2005).

On the second and final day, the students needed to showcase the iron age village they had created in Minecraft. An important aspect of this research is to show, how Minecraft Education can be used as a medium to produce language. So far, the seventh graders had been reluctant to communicate in English. Although one student had tried to speak in English during the creation of the village on the first day, this was not well received by two of his teammates. My observation showed that this mainly had to do with two things: it felt awkward trying to communicate in a second language when none of the four students actually retained the vocabulary needed to make the communication successful. Secondly, two of the students openly expressed lacking sufficient skills in English language, thus communicating in English language would create an uneven balance between the four students and so they had settled with communicating in their mother tongue, Danish.

However, this stage was where the students needed to work with their learning difficulties to successfully create a presentation of their project. Maybe the students intended to speak in English, however, they were clearly unsure of how to accomplish this successfully. Their seemingly unwillingness was rooted in past failure experiences attempting to speak the foreign language.

The progression of the building project had reached a stage where the students each began to be confronted with their difficulties and began to distrust themselves and their capabilities. This was not a bad thing happening. It was yet another step that required problem-solving. Students must be placed in a context where they can fail to succeed (Kant, 2017; Sinek, 2009).

Problem solving went out the window together with passion and determination. We had hit 'the wall.' If we were going to move past these negative feelings, I had to be able to decode their invitations. On the one hand, they really wanted to learn, there was no doubt about that, however, they felt obstructed by immediate feelings of low self-efficacy as the demands increased and changed their feelings of joy to a state of demotivation. On the other hand, their work in Minecraft had come to an end and had started to create a negative flow and I therefore had to come up with a solution to this problem.

The idea that a solution lies in the deconstruction between the interrelation of two counterpoints, as proposed by Hertz (2010) was suggested much earlier by Aristotle, who referred to a sliding scale for determining *the golden mean* by striking a balance between two vices (Aristotle, 1943). However, as the students had different obstacles i.e. dyslexia and short attention span, this balance would be different for each of the four students depending on the individual distance between the vices. In other words, there is no recipe for the golden mean – it must be found in each moment in the experimental and open teaching.

From the beginning of the day, the word *can't* in various contexts had been featured several times. We were able to deflect the first couple of *can't*. One of the students had expressed that he was unable to sit still for a longer period of time while another proclaimed that he had problems concentrating on a given task. When I asked them to count the hours they had been engaged with building in Minecraft in the previous lesson, they were surprised to count five straight hours only interrupted by two short breaks. The familiarity of the task and the fact that it appeared inspiring to them, was the reason they

were able to remain focused where other tasks would have resulted in loss of concentration and feelings of uneasiness. Their interest in the activity meant that they had gradually developed the skills to maintaining doing this activity for several hours without losing their focus. The downside was, that the state of flow they were in, had become rather addictive. Once, they had to step out of their comfort zone – out of the addictive flow – their previous negative experiences with learning were revived and had succumbed them.

Initially, the students had been introduced to a context where they felt ignited. They had visions and they felt inspired, thus they entered into a state of flow. And although they knew that it was not going to last, the feeling of interruption resulted in a feeling of being obstructed. This interruption is well described by jazz pianist, Keith Jarrett: "when I play pure improvisation, any kind of intellectual handles are inappropriate because they get in the way of letting the river move where it's supposed to move" (Knoop, 2005, p. 124). The cause of this feeling of obstruction, however, had to do with the fact that the students now found themselves in a scenario of 'I can't' rather than 'I can.' The difference between a professional jazz musician and seventh grade students is, that while the jazz musician has developed skills over many years and have become self-guiding, children need guidance to obtain skills.

The golden mean became apparent: following Hertz (2010) and Aristotle (1943) I had to propose a solution that:

- a) did not result in the disengagement of the students due to the increased demands of the task.
- b) would shatter the students' addiction to the flow of building that eventually would stall their further development.

The four students had had their competencies defined in the framework of the school. However, as described, overcoming barriers has to do with setting up the right scene where the child can develop (Löw, 2017). Psychiatrist, Ben Furman, argues that while adults often see problems as relating to an underlining disorder, the child views a problem as a lack of skills, thus, the child's obstacles are in fact competencies yet to be learned. All children need is a project where they experience autonomy to overcoming these obstacles on their own, thus, strengthening their self-confidence. The skills desired, however, must be within the child's immediate reach and presented in a safe environment where the tasks are achievable resulting in a successful experience (Furman, 2010).

The assignment I had given them was to produce a three-minute multimodal film featuring their work in Minecraft including speech, written context, images and music. To do this, they first had to compose a script. Throughout the first day, the students had successfully accomplished creating an iron age village by collaborating, acknowledging each other's strengths and assigning roles accordingly. This was no different to what they had to do now: they needed to work as a team and utilize each other's strengths to complete the project.

Previous failures had shown that they did not have the competencies to overcome this kind of task where they needed to concentrate on skills, they had been convinced they did not have, and it was clear that they did not feel compelled to complete this task. Following Williams and Mercer (2015), motivation needs to come from a vision of positive mental images, which at this point had turned into negative images. Being diagnosed with dyslexia, two of the students were convinced that writing a script would result in failure, because of their inability to produce text without too many spelling mistakes. The other two students felt stressed and anxious about needing to concentrate for a longer

period of time writing the script. Technology however presents opportunities to change these perspectives.

Creating a digital story reinforces writing and communication skills, research and assessment skills, presentation and interpersonal skills (Pardo, 2014). The students agreed that two of the team members had a sufficient level of English to produce the script. One of these students had earlier been responsible of writing the group's thoughts on learning and now, he realized that writing a script was a similar task, as they had to describe their working progress in Minecraft and how this benefitted their learning. The only difference was that this task had questions that required answers. This student took on the role as script writer, while the other student would co-translate the script to English.

Creating a digital storytelling improves linguistic ability. In the process of creation, different factors contribute to achieving satisfactory results. These include research, script writing and recording of own voice (Pardo, 2014).

While the two students worked on the script, the other two students took a break. They expressed that they needed physical exercise to regain mental focus for the next task – the video production. At this point, they were very uneasy and tried to escape the lesson both mentally and physically; and I let them do it. I was unsure how they would feel compelled to contribute to the production of the video, and their break was my regained time to create a new plan.

One of the students, who was dyslexic, did not feel compelled to participate in an activity requiring reading, writing or speaking in English. The other said that he was unable to concentrate on the task. So, I had to create the activity in a way that gave both these two students inspiration and confidence to work with the task.

WeVideo offers opportunities to showcase presentations through images, writing, speech and music. Whereas the first part of creating a presentation would be involved with writing a script, the second part would be concerned with presenting the script in a creative and appealing style. The third step would be to choose images to go along with the text and speech. And finally, the speech would be recorded.

With the script being ready, there were three more parts ahead; the last part – recorded speech – would involve all four students. Thus, there were two unassigned tasks in the process of creating the presentation.

During the students' creation of the iron age village, one student had been the trouble-shooter and in charge of taking screenshots while they created the village. The images were saved on his own computer, so I told him that the images were needed for the presentation and assigned him to figure out a way to transfer the images to my computer, where the presentation would be made. The task was similar to what he had done in Minecraft, thus it was a manageable task contributing to the presentation. The student chose to log into his Minecraft account on my computer where he was able to download the images.

Now, there was one student left. I was going to assign him the task of creating the actual presentation including inserting the text, choosing the theme music and help decide who would speak which part of the script. I gave him a 5-minute crash course in using the program while the 'script writers' took their well-earned break. At his point, the students had been working for four hours.

The student who had just initiated the production of the video began experimenting with the different features. I observed as he inserted the sentences one by one in the video and experimented with ways to make the sentences appear. He chose the music and invited his team mates to approve his decision. One thing that impressed me throughout both days was the students' ability to strengthen each other's abilities and thus, he was given credit for his choice of music. Being dyslexic is not a hindrance to feeling inspired to working with text. A change of scene where the student focuses more on presenting the text proved to have a desired outcome.

The final stage was the recording of speech. None of the students felt confident about this task. I explained to them that the difference between speaking in class and recording own voice, was that the latter could be rehearsed and repeated until the desired result had been achieved.

The producer was the student who was most reluctant to speak in English. He expressed that he was not capable and assigned the speaking parts to the other students. However, I told him to pick one short sentence that he felt confident about and he agreed to give it a try.

Something interesting occurred after he began recording his own voice. He experienced that it was quite fun to hear his own voice and the many attempts given to make it right made him feel in control of the task. When I asked him to call the next student to speak a sentence, he asked if he could speak this sentence, too. By changing the scene and context of speaking, this student had gained confidence because the activity was desirable. Consequently, he had proven capable of overcoming his own obstacle. All four students had overcome their obstacles and turns their difficulties into assets.

Summary

The four students initially had difficulties; obstacles they were not capable of overcoming in the learning environment of the school. By collaborating, as a team, they were able to overcome their difficulties. They were unable to discover their own strengths until put in a situation where they needed to bring those skills into play to successfully complete their project. Learning how to co-create with others is a key skill for life (Microsoft & McKinsey & Company's Education Practice, 2018).

The four students had existed in a cultural and social context without feeling a purpose. By decoding their invitations to work in an environment that appealed to them, they were able to bridge the gap between learning and interest. Decoding helps us navigate the cultural conventions we exist in. (Burn & Durran, 2007). Their desire to express themselves enabled them to overcome language barriers i.e. they didn't want to speak in English, but they had something that they were inspired to share. English had become the medium rather than the focus (Williams, 2013). Through the problem-solving tasks presented in Minecraft, they felt empowered and acknowledged. When we make something worthwhile, valuable and new, we change our sense of ourselves and what we are capable of accomplishing (Burn & Durran, 2007). The students had been allowed to perform a stage where they used technology as their weapon to gain confidence through creation and problem-solving. Their video, [Everything Without the Teacher](#), got its name because the students were unable to see my contribution to their work.

Conclusion

Due to change and uncertainty, society will demand increased social-emotional skills and higher cognitive abilities from its citizens. The necessity to embrace a more diversified view on social interplay becomes critical in preparing students for the future. Technology not only represents a new norm in society to which we must adjust, it also changes how students learn and are being supported by educators. With the advancements of technology, students want to develop the skills to navigate their own learning and teaching therefore needs to shift to a more coaching model. Teaching is concerned with several paradoxes and therefore cannot be planned rationally and explicitly, however, learning *can* be personalized for every student despite their language skills or learning difficulties. Technology holds the key to enhance learning by driving inclusivity (Microsoft & McKinsey & Company's Education Practice, 2018), and Minecraft Education offers a learning platform, with the potential to turn stumbling blocks into steppingstones. These steppingstones are created through a reflective approach to teaching that engages learners through inspiration connected to their natural desire to explore and create. Understanding the downside of technology that creates a negative flow through the addiction to easy and rewarding tasks, thus, becomes critical. The successful implementation of Minecraft requires the teacher to be worse in using Minecraft than their students, which opens up for a student-teacher relation where both teachers and students can grow together.

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