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## **We do the same, but it is different. The open laboratory & play culture**

### Abstract

This article outlines a certain research field and a pedagogical area around digital media, play and pedagogy in a globalized media- & knowledge society. I sketch out both some results and some new challenges based on closed, recent and ongoing activities, development and research using digital media together with children in different pedagogical settings. The methods to find ways to use technologies and narratives have always been based on concrete experiments inside the pedagogical settings. No matter the context I as a researcher stepped into the actual situation and co-created play, experiments, questions, processes and results. Over the years I have discussed one pedagogical principle for the processes I have used: the open laboratory. This open laboratory covers pedagogical methods where all media and all materials can be combined in processes, where children and pedagogues play and experiment.

### Keywords

mediaplay; the experimenting community; open laboratories; formula & improvisation

My present research position is influenced by several sources: action research (Hearn, Tacchi, Foth & Lennie 2009), practice-led research (Smith & Dean 2009) and performative research (Haseman 2006). I want to improve the field, I am working in, I want to do it together with the practitioners I meet in the field and I want to make a difference for the actual children and pedagogues when I encounter them. The research results are the actual actions taking place in the field as well as the communication and academic discussion about the results. The idea is to combine an experimenting pedagogy in open laboratories, where not all answers are in place in advance with research where the same obviously is the case (Thestrup et al 2015). In these processes the pedagogues in question are considered as reflective practitioners (Schön 1983) and the children via their play culture as capable of staging new possibilities (Mouritsen 2001). But to get there I invite you on a journey through this article starting way back in 1987.

#### The opening: Body, narrative

In the late 1980'ties I as a young man started using and teaching stage fight together with children and young people. Stage fight has to do with faking a real fight and is closely connected to special effects in a film. Focus is on how to construct an effect, a scene or a conflict. So stage fight is also connected to the dramaturgy of a film and how it actually are made to tell a certain story. The tools I got in hand and used together with children and young people were tools to tell and construct something not yet told by us. We copied characters, props and situations but at the very moment we did so we also changed them slightly into what might become other characters, props and situations. So from this came the first entrance point to my work: Any film can be taken apart and put together again in another way. Any given expression can be fascinating but can also become material for another expression.

The techniques used to do stage fight were primarily based on how one used the body together with someone else. A stage fight is an orchestrated dance where every step and every burst of energy and feelings count and have to be carried out carefully by a group of people so nobody gets hurt (Spang Olsen 1998). Even though it might be filmed and edited afterwards the close cooperation in the same time and space is crucial. Soon these sequences of fake violence were combined with the construction of small narratives, which not only had to do with sequences of fighting but also with the exchange of power between people told in this particular theatrical language. These small narratives were played out in gym halls, staircases, parks, etc. These spaces became laboratories where I transformed sequences from the screen to sequences in a physical space. From this came my next entry: Bodies in laboratories can be used to express feelings and construct narratives.

I searched for and constructed techniques and progressions that made it possible for me and for the participants to tell what we wanted to tell through the means of popular culture. I got access to the children in another way than I otherwise would have done and I simultaneously got access to an infinite number of narratives. Stage fight became the entrance to the experiences and thoughts children had when using films but seen in a wider context also their experiences being part of a media society. So from this came another entry point: The pedagogue can construct investigations, where media society is central for how the group works and what it reflects upon (Thestrup 1998).

### The school: gaffer tape, trash

The use of body, narratives and space are also evident in the next example. *Technical Play* was a project, which took place in the public school *Katrinebjergskolen* from 2002 and until 2008 and had a recent and important new development in 2014 at the same place: *The Fabulous Minecraft Re-mix*, which will be mentioned later in this article (Thestrup 2014). Together with Ole Caprani I had the intention to examine how one could tell children in the first grades in school about robots and technology (Caprani & Thestrup 2010; Caprani; Henningsen & Thestrup 2007). The children were 7 years old and came directly from kindergarten, which in Denmark typically was meant for children between 4 and 6 years old. Twice a year for 6 years we visited a class of children for a week or two and were responsible for planning and carrying out the actual course. In each class there were between 20-25 pupils. We did not choose some of the children for our investigations and left others out. We entered the role of teachers together with the normal teachers and tried to make the teaching relevant to the children, we actually met. It was important to us that these children actually learned something from meeting us. They were not just data for our research. They were children together with whom we experienced technology.

Over time in the project we used different materials. First we used LEGO Scouts, one of the predecessors of LEGO Mindstorms and later old computers and laptops and toys, which had been scraped. The scouts were designed to look, sound and move like insects about the size of a hand of a grown-up. The scouts could easily and quickly be programmed and reprogrammed via an interface directly on the robot itself and we therefore simply did not need a computer or an Internet connection to start using our technology at hand. The technology was literally between us on the floor or a table and not on a screen. As it was LEGO-robots, we could to a certain extent alter the look of the robot and together with the programming we therefore introduced the principle of controlling and at least alter the look of the technology involved.

Like at first LEGO, later both computers and toys were taken apart and put together again to new toys. To do so our most important tool turned out to be ordinary gaffer tape. Screwdrivers and scissors were used to take the scraped technology apart and the gaffer tape was used to make new prototypes of how a given toy might look like. The gaffer tape simply made it possible for the children to within minutes construct a toy consisting of both bits of computers and bits of toys. Already in this short description some of the principles from the early work with stage fight should be obvious. The activities preferred centered on the examination of technology through the use of body and other materials, experimenting and constructing. The new part was that it also happened through tinkering and fast prototyping when children used their hands and tools.

### The change: places, connections

During the years we changed the whole classroom into a large laboratory with different options. Tools were placed in boxes with different colors for boxes with computers and boxes containing toys. There had to be a place in the room, where the old computers and the toys could be taken apart and put together again. But we also learned that there needed to be other distinct places in the lab. There had to be a place to store and show the new toys for inspiration for still new toys and there needed to be a place for experimenting with the new toys. The reason for the combined storage and exhibition facility was that the toys could be

produced and later used when needed. We also found out that when the children made their new toys they did not always know what these toys could be used for. Therefore we made space for certain places to play with the toys, which were inspired by the play areas in the kindergarten or in the after school club.

Later we added more places in the classroom and expanded the different ways of investigating. The children played robots like in a role play. One example was that we constructed a small drama exercise where they walked around with sensors in their hands and had to react if the sensors touched something (Henningsen 2002). We told oral stories using the toys produced. The children were invited to give suggestions on how each story could proceed. We introduced digital cameras to photograph the toys and made it possible to print the photos and draw upon them with pencils. These different places were loosely connected in the sense that the children themselves to a large extent decided where to be and where to go next. Each place had a defined possibility, which even were connected to other places. One example was that the children at one place could make a new toy, at another take a picture, print it and then at yet another place color it (Henningsen, Caprani & Thestrup 2007). And as we developed this concept we also developed the idea, that the children could suggest new places and name both the new and the old places. One example was a boy, who came up to me and wanted to show me a place he and his friend had made: a bookcase pushed out a meter from the wall and behind it the two of them were busy scraping some computer bits (Caprani & Thestrup 2010).

This construction of different places and different media worked for several reasons. Each place was clearly defined and it was rather easy to find out what to do. At each place there were no principally defined difference between analogue and digital media, tools and materials. A scissor was just as important a tool as a web camera as long as each tool served a distinct purpose. A role play, a LEGO robot or a drawing could all examine what a robot was or could be used for. In general everything we made had the intention of giving children space for experimenting, playing, constructing and telling. A LEGO robot could be programmed, a web cam could be moved to make a different image and a toy head from a bear could be placed differently on a piece of a computer.

Each place was introduced one by one over time and connected to other places. But over time there was not only one single way through a given number of places. In the beginning there normally was as we always introduced the workplaces over time and the number of possibilities were few. Relatively fast as the number of places increased, the number of possibilities logically did as well. But the increasing number did not become a problem for several reasons. A place was always carefully introduced and all places had to do with the same area of interest. We even started each lecture with framing what we were going to do the given day and often ended up each lecture with some kind of reflection.

#### The children: formula, improvisation

But the pedagogical construction mentioned above also functioned for quite some other reasons. The play culture as it occurred outside and inside the pedagogical framework played an important role. As the example with the boy demonstrates, the children could invent new places to do something and on their way between two places they were allowed to start up a new activity. This was relatively easy as they often brought the new toys or the cameras with them. They simply sat down and played or filmed what happened in front of them.

Something distinct happened during our change of the classroom to a certain form of laboratory. The children used the new pedagogical framework in a way that can be described as a kind of simultaneous un-balance and balance. In roleplaying in children's play culture you find a close relationship between fiction and reality. Children are staging what they play (Mouritsen & Qvortrup 2002). They are very well aware that the fiction they play out is just a fiction. If they for instance pretend to be a character in a fiction, they don't believe, that they actually are the character or the fiction actually exists in reality. They pretend. They are still children placed in reality – but playing. Any given object can be another object. A doll can be a daughter if needed. A spoon can be something else or a spoon in a story. It depends on the children using the doll or the spoon.

It is not difficult for children to transfer inspiration from the screen to the floor. In 1983 Margaretha Rönnberg used the term *mediaplay* to show that children took characters, sentences and situations from TV-series and films and used them when playing (Rönnberg 1983). She already then stated that the children did not just copy what they saw, but used it as a source of material. Later Lars Henningsen expanded the meaning of *mediaplay* to include children's use of technology, in this case video cameras and editing software (Henningsen 1995). And even later Kjetil Sandvik (Sandvik 2009) and later I myself stated that media play had these two aspects: A constant and ongoing intertwine between narratives and technology, content and form (Thestrup 2011), when *mediaplaying* children use their ability to copy and change.

In order to understand how the children stage the playing that is unfolding, it is important to understand the relationship between formula and improvisation in culture. (Mouritsen 2001, Toft & Knudsen 2017). Formula has to do with the ability to maintain and repeat methods again and again. Improvisation is the ability to use and change the very formula. Children do both when playing. They manage to keep a certain way of playing alive for years and at the very same time to improvise the same play at once depending on what they agree to do. You may say that the ability to adapt is a part of any culture (Hastrup 2004) or that it should be allowed to be. Culture is something you DO (Jantzen 2005) together with someone else unfolding a momentary combination of formula and improvisation. Culture can be seen as a dynamic entity consisting of two forces that supplement each other.

This delicate balance between repetition and change was at the very center of the way we constructed the workplace around us. When the boy came to me to show me the new place, he showed me a small but distinct change in the whole number of places and connections between them and an equally distinct repetition of the very way we already were working together. When the children used gaffer tape, toys and computer to build new toys, they did not always know what these toys could do, who they were and how they could be played with. The new toys were a kind of prototypes that simply needed further investigation. The prototypes were not stable or rather: At the center of constructing was a certain uncertainty. The purpose of the local culture was to allow uncertainty. The pressure was off in the sense that it was appreciated that you could try out different things without pressing for results or final outcomes. The balance between copying and changing was constantly tipping. When a toy was used for roleplaying or oral narratives significance was established at least for the time being.

The fact that the children were allowed so much space for initiative and play outside the defined work places also helped us. When the children played they repeated the basic circumstances that they were in and established their own places where the negotiation between formula and improvisation could be practiced once again. Children can be called *interpretive co-producers* to point out that they do not just copy what they see (Corsaro 2005). In order to grasp the special conditions doing play of technique one could re-frame it as Jan Kampmann does, as *interpretive new-producers* (Kampmann 2010) to emphasize that something new is being established at least for the group of children in question.

The children being part of the technical play project were asked to play and to experiment all over the different places. At the same time these places offered certain formulas to repeat or to change. The children could also repeat what they had seen others do and do the same. In the very copying of each other's prototypes they were actually repeating an uncertainty that could lead to new toys, narratives and experiments. They were interpreting each other and had the possibility to produce something new. One could definitely say that children in their play culture could and would do this no matter the material provided but here the pedagogy actively supported it.

#### The teacher: participation, play

We as teachers and researchers were definitely part of what was going on because we did not know all the answers to how the pedagogical space around the children and us should be designed. We developed the exercises and examined the content that the exercises framed. Both we and the children became intrigued by some of the figures or narratives that were the result of what we were playing and doing. We ourselves told stories based upon the figures the children made. We started stories we did not know the end to, so we asked the children how to continue the story while we told it. Our questions did not only focus on how the framework functioned looking at the process from the outside but on the questions raised on the inside of the process.

The work inside the process included play. We played with the children and had to find ways to do this. First of all we showed an interest in play talking about what the children were playing and through joining a given play situation. In this process we asked about the rules and eventually we ourselves suggested new rules or instigated ourselves play situations. We grasped the possibility to become play masters or to be amongst them who suggested or played out rules, characters and situations. We were not children or pretended to be children. We were grown-ups, who wanted to play and did it as such. We understood and used the formula-improvisation model from children's play culture.

We also accepted play as an important feature in itself and defined by the participants as play (Huizinga 1963). This means that it is important what the people involved want to do. Playing this particular play in this particular way is vital for the group. The teacher does not decide everything that is going on, when and how. In fact the children might be able to play without the teacher. He or she is in a situation where copying and changing are equally important. Copying might be needed to change and changing might result in a new formula to improvise upon. The important questions to consider might grow out of the situation and is not necessarily coming in advance from the teacher solely. Actually this is the potential in

playing together with children. New questions, new challenges and new suggestions might arise from the attempt to play together.

So in the project at Katrinebjergskolen play could happen at any of the places we established in advance and any of the places that the children or we as teachers established on the way. This again meant that the different routes between the places could change into new more or less momentary places. In this sense the classroom as a laboratory had similarities with an afterschool club, a kindergarten or a day care center, where play is part of everyday pedagogy.

We may use the term *self-organized play*, when children are allowed some possibilities to actually organize time, place, content and rules themselves. They can within the defined pedagogical framework do what they want. The self-organized play is independent and the given play does not need to have anything to do with what else is going on. Nevertheless, there is often a close relationship between what is going on in the two activities: playing where the teacher is part and self-organized play. The children bring elements from children's culture and from their experiences with narratives from media and technology into the encounter in the common play culture consisting of grown-ups and children. And from this common play cultural inspiration and experiences they return to the self-organized play.

The teacher and the children can be seen as a community of practice operating socially and culturally with distinctive features (Lave & Wenger 2003). The community consists of self-organized play, common play and other activities using technologies and narrative, but most of all the focus is to be in an experimenting mode: *The experimenting community*. The classroom is changed to a *laboratory* and the teacher and children involved are the ones who decide what and how to do, play and learn. In the experimenting community the distinction is not between play and learning, but between lecturing and common experimenting.

#### The sandbox game: transforming, communicating

In June 2014 I then made another experimenting community based upon the principles sketched out formerly in this text. The kids were the same age and finishing their first year in school. The project stretched out over nearly 2 weeks and this time I worked closely together with Inger Hansen, a teacher at the school Katrinebjergskolen. The purpose was once again to emphasize the process of copying and changing, but transferred this process to other technologies and distinct design activities for this to happen. On-line activities were also to be included and as such the use of Minecraft had the intention of using the different possibilities to produce and communicate across time and space.

The technological scrap was replaced by Minecraft, a sandbox construction game (Persson 2009). In the game you control a character, which in principle you may use to build virtually whatever you want. You may do this on your own or together with others. You may do it with all resources available or find resources fighting against zombies and other enemies. You go on-line to play the game and those you meet with are online as well. The graphics of the game are actually quite similar to that of LEGO bricks. In fact one could compare the actual game to playing and building with a pile of LEGO bricks on the floor. The game was chosen for this reason. It seemed that there were some obvious possibilities to build and play Minecraft in both digital and analogue ways.

Apparently it would be easy to copy what was built inside Minecraft to something outside of Minecraft, just using e.g. LEGO bricks – or the other way round – but it is not that easy. At

least you have to scale what you have been doing and if you use bricks that are curved, then you have difficulties building that inside Minecraft using square bricks. If you start using other materials outside Minecraft, then it becomes even more difficult to do the copying inside Minecraft. If you build a complicated structure inside Minecraft, then it also becomes difficult to copy it outside Minecraft – especially using different materials.

The basic construction in the classroom was the establishing of different places: One could play Minecraft using the Pocket Edition on an Ipad, one could build using LEGO bricks designed to build Minecraft from the Micro World Series and one could build houses in cardboard. These 3 places were established right from the beginning and then later new places and activities were added. There was no forced progression in these activities. Every morning there was an introduction to a term or an activity that either all participants or some of them should try out and the children were also told about experiences made during the days.

In this construction we introduced several activities that had to do with copy and change. Here are two examples from the many that can be seen on the documentary (Thestrup 2014). One activity had to do with copying via Skype on tablets. One group had some LEGO Duplo bricks and another group had some cardboard moving boxes. One group then made a construction using the bricks and another group were supposed to do the same using the moving boxes. Skype was the only connection between the two groups since the groups were placed in different rooms.

It was not that easy to copy each other's work even though the LEGO and the boxes were chosen, because they had similar dimensions, which could be scaled up and down. The children and we had to get used to do this scaling when trying to copy. The view through Skype was obviously not the same, as if one had seen what to copy being present in the same room. It simply was difficult to get an overall look, so the tablets had to be moved around the boxes or the bricks to make it possible for those in the other room to see what to copy.

Another even more complicated activity was the use of Snapchat. The main feature of this software is to take a photo and send it to somebody. You can add a small text and decide for how many seconds the receiver can see the photo when opening the file including it. After the chosen number of seconds the photo disappears. We used this feature in a specific mode. Again the children worked in groups. One group built a house in a chosen material, took a picture, wrote a text to another group to build the same house but in another material. The group that was given the task, now had to make the house in the new material, take a new picture and send it back. This activity was complicated as it contained several challenges. The change of material made it even more difficult to copy the house. The use of snapchat made it very difficult to get an idea of what the house looked like.

However, for both activities it turned out to be unimportant if the house in question or the combination of bricks or boxes were absolutely correct or not. First of all the pedagogical framework pointed at re-mixing and transforming and not at merely copying. When we talked with the children about what we did, we talked about copying and changing. As one of the children put it when asked to define re-mixing: *We do the same, but it is different* (My translation, Thestrup 2014:06.36). And maybe this is the core understanding of re-mixing, which resonates into children's play culture, when talking about copy and change. When a group of children use an expression of some kind as a formula to improvise upon, this

expression is present in their improvisation through the elements they use when playing. The children copy at the very moment they change something through improvisation.

Secondly it is important to understand the relationship between the activities described above and the 3 basic activities. As said the gaming, the building of cardboard houses and the building of LEGO Minecraft went on all the time. Here it was allowed to copy and to concentrate on the challenges in each place. We did not have to support these activities all the time and could instead focus on new activities, where we chose a small number of children. We tried out the idea and then later told about it and demonstrated it for everybody. The activities using Snapchat and Skype were carried out like that. This actually meant that we found a way to have a secure and yet vital basis for everybody and the possibility to establish small teams that investigated some new modes and manners.

In this way the classroom turns into a certain kind of laboratory. It surely depends on the framework provided by the teacher and the knowledge he or she brings into the investigations. But also it depends on the possibility to, in a secure way, experiment with re-mixing and transforming. The un-stability is stable, because the groundwork consists of elements that can be repeated and expanded. The core of play exists in all activities no matter what is going on and as such is recognizable to the children. If this construction is functioning, it will be possible to activate new experiments to the whole group of children by letting smaller groups investigate the questions and find ways for the other participants to take over the possible solutions – and then let them continue the investigations.

#### The open laboratory: Narratives, construction

The idea of the open laboratory was originally based upon the open theatre (Lehmann & Szatkowski 2001). Here the laboratory should not in advance exclude any kind of theatre and drama traditions. Digital media were not excluded either. Instead it was the actual group of people working with theatre that should be the ones to decide how to experiment with what. The theatre laboratory was basically a place where new theatre forms were developed, formulated and demonstrated (Christoffersen 2004). In the theatre laboratory none of the existing ways of producing and combining form and content has to be pre-defined. If one then leaves the open theatre as the only source for defining what is going on, then one can say, that the laboratory is a defined space meant for experimenting (Staunæs et al, 2014). In the open laboratory it can be difficult and unnecessary to limit the laboratory to one particular space defined in advance since all actual rooms and places can be named laboratories. Any space and any place can be named a laboratory and one can even say that the laboratory is a function, which can be activated whenever and wherever you may wish in an experimenting pedagogy (Robinson & Thestrup 2016; Thestrup & Robinson 2016). The laboratory can both in principle and in practice be an empty room, one fills out with experiments.

The open laboratory combines analogue and digital materials and media without fundamental differences. In the same exercise or play they can exist together. In this laboratory questions are asked and there might not be ready answers in advance. Both the teacher and the children are part of a common process and every person is given the opportunity and support to offer new ideas and examples in the ongoing process. In the laboratory you do something together. There is something between us that connects us as the participants in the laboratory (Husen 1985). You play together, use technology together or construct new

narratives together. Narratives and technologies from outside the laboratory are transformed and re-mixed into new narratives and technologies. The same goes for design & production processes and even the establishing of communication across time & space on a local, regional & global scale. The open laboratory is open to the world.

The open laboratory can combine the two intertwined aspects of mediaplay: *content* and *form*. This intertwining can come into sight on several levels. At a dramaturgical level: What to tell to yourself, the group you belong to and others – and how to tell using different languages of form. Here the form you use can decide what you can tell and the other way round: What you want to tell, can decide how you do it. Another intertwining appears at an even more general level: the interplay between narrative and construction. You can focus on how a technology might function, for which purpose you can use it and even make your own version, but you can also focus on how a narrative might function, for which purpose you can use it and even make your own version. The pedagogy based on the ongoing establishing of places can be used for connecting narrative and construction either at one place or between places.

In the open laboratory the competences of children in their play culture and in their interaction with pedagogues who are able to play can be brought into life in a way that support children when using the digital media. Any given technology or any given narrative can become material for local play and local activities and can be transformed in new playing or in new activities. When activating the ability to copy and change simultaneously children in a pedagogical setting achieve a certain way of examining the world they live in. The open laboratory is open to copy and change as a method and as a strategy for both children and pedagogues.

#### The perspective: cultures of creativity

The minecraft project pointed out some new possibilities for using digital media for communicating and producing more globally oriented projects. In short digital media are mobile, ubiquitous and can be used for the search of information, communication and the ongoing production of smaller or larger expressions. All this can be done locally, regionally and globally. Examples of this have already been tried out with success (Thestrup et al 2015).

We live in a re-mix culture (Fagerjord 2010). We have gained access to many expressions for many people via the internet. Existing expressions are copied, transformed and combined into new expressions (Ferguson 2012). We select and compose (Manovich 2001) and use templates, which are like...»...a *'half-baked'* work, where some of the elements already are created. The user can fill in his or her details, and the completed work is created faster, and often better, than it otherwise would be« (Fagerjord 2010:15). Remixing can be understood as trajectories of remixing because one emphasizes the process of exactly doing remixing. It is »...selecting, cutting, pasting and combining semiotic resources into new digital and multimodal texts (*bricolage*), which is achieved by downloading and uploading files from different sources (internet, iPod, DV-camera, digital camera or sound recording devices)«. (Erstad, Gilje, & de Lange, 2007, no page). Also, remixing is a complex trajectory because individual people or groups create individual expressions, which then are reworked by others (Erstad 2008). Children have the opportunity to be prod-users, as they can both use and

produce through digital media (Bruns 2008). Communication with others may go both ways and can potentially give the children a platform to copy, change and combine globally.

The open laboratory is not only open to various combinations of various media and materials. This is already a kind of re-mixing but also it may be expanded to being open to re-mixing together with other people across time and space. The LEGO Foundation has published a report on cultures of creativity, where it is discussed how the connection between cultures could take place (Gauntlett & Thomsen 2013). Each culture has as core a sense of community and is building common meaning. The creative mindset »...is driven by playing, sharing, making and thinking – the active processes through which people learn and form meanings together«. (Gauntlett & Thomsen 2013:6). When different cultures try to connect, the report suggests that this may prove successful through non-verbal systems, that do not rely on the spoken language, as it can be very difficult to understand somebody else's native tongue. The report states that it is not about ignoring differences but about channeling conversations. Connecting through play is such a conversation.

The open laboratory is a specific culture that is building meaning and establishing a community through experimenting, transforming and remixing both narratives and technology. Notice both an older example of experimenting with blue screen (Caprani, Henningsen & Thestrup 2007) and a brand new one on green screen, where this movie effect is turned into something quite different (Thestrup 2018). In the open laboratory the participants make things and structures, they play and experiment, they think about what they are doing and they also share ideas, images, video clips, examples and questions with others through a system, where the spoken language is not vital to communication. Possible differences between cultures are not necessarily a problem, as the sharing is based upon experimenting without already defined answers. Therefore different suggestions might simply pose an advantage when connecting and the result might be, that the cultures find a common solution based upon mutual experimenting.

In the open laboratory play culture and a dynamic culture as such offers the participants the possibility to act as interpretive new-producers on a global scale. Their ability to adapt (Sutton-Smith 1997) enable children to contribute to society and mankind through play. An open laboratory including play offers a reservoir of transformation, that might support society's need to support ideas on how to solve the global problems that mankind face. At least the open laboratory with its focus on self-organized play and common play can be an important part of attempts to support a creative mindset across cultures, making children be and become creative thinkers (Resnick 2017) and thereby support problem solving processes.

### Bibliography

Bruns, A. (2008). *Blogs, Wikipedia, Second Life, and Beyond*: Peter Lang Publishing.

Caprani, O. & Thestrup K. (2010). Det eksperimenterende fællesskab – børn og voksnes leg med medier og teknologi. Tidsskriftet *Læring og Medier*, 5. Lokaliseret on <http://ojs.statsbiblioteket.dk/index.php/lom/article/view/3956/3466>, 21.04.2018

Caprani, O., Henningsen, L. & Thestrup K (2007). *I det blå rum – medieleg med skrot og kamera. Documentary*. Localized on <https://vimeo.com/53535448> 07.01.2016. 21.04.2018

Christoffersen, E. E. (2004). Introduction to Peripeti and Serendipity? Tidsskriftet *PERIPETI*, 2, 5-15.

- Corsaro, W. A. (2005). *The sociology of Childhood*. Sage Productions.
- Erstad, O. (2008). Trajectories of remixing – digital literacies, media production and schooling, I C. Lankshear & M. Knobel (Red.), *Digital literacies. Concepts, Policies and Practices*. Peter Lang.
- Erstad, O., Gilje, Ø. & de Lange, T. (2007). Re-mixing multimedial resources: multiliteracies and digital production in Norwegian media education. *Learning, Media and Technology*, 32, 183-198.
- Fagerjord, A. (2009). After Convergence: YouTube and Remix Culture. in Hunsinger, J., Klastrup, L. & Allen, M. (ed.) *International Handbook of Internet Research*. Springer.
- Ferguson, K. (2012) *Embracing the remix. Ted-Talk*. Localized 21.04.2018 on <https://www.youtube.com/watch?v=zd-dqUuvLk4>
- Gauntlett, D. & Thomsen, S.B. (ed). (2013). Cultures of creativity. *LEGO Foundation*. Localized 21.04.2018 on <http://www.legofoundation.com>
- Haseman, B. (2006). A Manifesto for Performative Research. In *Media International Australia incorporating Culture and Policy, theme issue »Practise-led Research«*, 118, 98-106.
- Hastrup, K. (2004). *Det fleksible fællesskab*. Aarhus: Aarhus Universitetsforlag.
- Hearn, G., Tacchi, J., Foth, M. & Lennie, J. (2009). *Action Research and New Media*. Hampton Press.
- Henningsen, L. (1995). Børnekultur og pædagogisk praksis. In *Computerleg*, ledsagehæfte til videodokumentar. Aarhus: Zip Zap Video og Jydsk Pædagogseminarium.
- Huizinga, J. (1963). *Homo ludens*. København: Gyldendals Uglebøger.
- Husen, M. (1985). *Socialpædagogik og Arbejdsprocesser*. København: Socialpædagogernes Faglige Organisation.
- Jantzen, C. (2005). Tertium Datur. Kampen om kulturbegrebet. In K. K. Povlsen & S. A. Sørensen (Red.), *Kunstkritik og kulturkamp*. Aarhus: Klim.
- Kampmann, J. (2010). Børnekultur i et institutionsperspektiv – spændingsfeltet mellem leg og læring. *Tidsskrift for Børne- & Ungdomskultur*, nr. 54, 9-20. Odense: Syddansk Universitetsforlag.
- Klysner, H. (2015). *Under det sorte flag*. Documentary. Localized 07.01.2016 on <http://codingpirates.dk/under-det-sortte-flag/>
- Lave, J. & Wenger, E (2003). *Situeret læring og andre tekster*. København: Hans Reitzels Forlag.
- Lehmann, N. & Szatkowski J. (2001). Creative Pragmatics – a Manifesto for The Open Theatre. In B. Rasmussen, T. Kjølner, V. Rasmussen & H. Heikkinen (red.). *Nordic Voices in Drama, Theatre and Education: IDEA Publications and IDEA 2001 World Congress* – Bergen.
- Manovich, L. (2001). *The Language of New Media*. MIT Press.
- Mouritsen, F. (2001). Refleksivitet og refleksionstyper i børns udtryksformer. *Tidsskrift for Børne- og ungdomskultur*, 43, 171-190. Odense: Syddansk Universitetsforlag.
- Mouritsen, F. & Qvortrup, J. (ed.) (2002). *Childhood and Childrens Culture*. Odense: University of Southern Denmark Press.
- Persson, M. (2009) *Minecraft Classic*. Mojang AB
- Resnick, M. (2017). *Lifelong kindergarten*: The MIT Press.

- Robinson, S. & Thestrup, K. *Inside the Rainbow*. Video documentary, localized 21.04.2018 on <https://youtu.be/YdBekYIC6Hk>
- Rönnerberg, M. (1983). Skådelek och medialekar. In C. Bøgh: *Småbørnsforskning i Danmark IX – Rapport fra seminaret: Børns leg i det moderne industrisamfund*. Udvalget vedrørende småbørnsforskning.
- Sandvik, K. (2009). Medieleg af 1. og 2. grad. *Tidsskrift for Børne- & Ungdomskultur*, 53, 75-86. Odense: Syddansk Universitetsforlag.
- Schön, D. A. (1983). *The Reflective Practitioner*. Basic Books, Inc.
- Smith, H. & Dean, R. T. (2009). *Practice-led Research, Research-led Practice in the Creative Arts*. Edinburgh: Edinburgh University Press.
- Spang Olsen, M. (1998). *Stunttræning*. København: Gyldendal.
- Staunæs, D, Adriansen, H., Dupret, K., Høyrup, S., og Nickelsen, N.C. (red.) (2014). *Læringslaboratorier og –eksperimenter*. Aarhus: Aarhus Universitetsforlag.
- Sutton-Smith, B. (1997). *The ambiguity of play*. Harvard University Press.
- Thestrup, K. (1998). Med medierne som råstof. I M. T. Haugsted, I. Hamre & M. Andersen (red.), *Anslag – teater- og dramafagets didaktik og metode*. København: Danmarks Lærerhøjskole.
- Thestrup, K. (2011). *Det eksperimenterende fællesskab – medieleg i en pædagogisk kontekst*. Phd- thesis. Aarhus: Aarhus University.
- Thestrup, K. (2014). *The fabulous Minecraft Re-mix 5*. Documentary. Localized 19.04.2018 on [https://www.youtube.com/watch?v=vo\\_WLmJLGVA&list=PLAVS-GEyIPCh3KNEbVlDXU7YDWGyPZxj2&index=4](https://www.youtube.com/watch?v=vo_WLmJLGVA&list=PLAVS-GEyIPCh3KNEbVlDXU7YDWGyPZxj2&index=4)
- Thestrup, K. (2018). *The Green screen experiments*. Video documentary. Produced by Klaus Thestrup and Ivan Moses. Localized 21.04.2018 on <https://youtu.be/jSua22fSUBk>
- Thestrup, K. Andersen, M.A., Jessen, C., Knudsen, J. & Sandvik, K. (2015). *Delaftale 3: Dannelse I en digital og global verden – digitale redskaber skal understøtte barnets lærings- og dannelsesproces*. Localized 19.04.2018 on <http://www.kl.dk/PageFiles/1321042/Delrapport%203%20-%20Dannelse%20i%20en%20digital%20og%20global%20overden.pdf>. The other reports on the subject can be found here: <http://www.kl.dk/Fagomrader/Folkeskolen/Arrangementer/Materiale-fra-afholdte-arrangementer/>
- Thestrup, K. & Robinson, S. (2016). Towards an entrepreneurial mindset: Empowering learners in an open laboratory. in Papadopoulos, P. M. , Burger, R. & Faria, A. (red.). *Innovation and Entrepreneurship in Education* (Advances in Digital Education and Lifelong Learning, Bind 2), Emerald Group Publishing Limited.
- Toft, H. & Knudsen, E. K. (red.). (2017). *Mouritsens metode*. Tidsskrift for børne- og ungdomskultur, Nr. 60 & 61. Odense: Syddansk Universitetsforlag.

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