

## CRITICAL THINKING IN KINDERGARTEN

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### Abstract:

In Norway kindergartens are viewed as the first step in children's education. There is an ongoing discussion in the early childhood field concerning how best to prepare children for lifelong education. In this paper we want to discuss critical thinking in relation to children's everyday life in kindergarten. We focus on how kindergarten teachers can practice critical thinking together with children by using documentation as a starting point. We emphasize children's active participation in critical thinking, and point out some aspects we find important when it comes to accommodating critical thinking in kindergarten. We argue that critical thinking must take into account the social practice of thinking; both the power relations in the dialogue and children's movement, experimentation and way of being. It seems to be important to fight for children's rights when political goals appear to reduce children's active participation, and it is in this regard we find it interesting to discuss critical thinking and how early childhood teachers can best arrange and prepare for such thinking in kindergarten.

Key words: Critical thinking; creative thinking; active participation; kindergarten

## Pensamiento Crítico en el Jardín de Infantes

### Resumen:

En Noruega, los jardines de infantes son vistos como el primer paso en la educación de los niños. Existe una persistente discusión sobre cómo preparar los chicos para la educación que recibirán a lo largo de su vida. En este trabajo queremos discutir el pensamiento crítico en relación con el cotidiano de los niños en el jardín de infantes. Nos concentramos en cómo el maestro o la maestra de jardín de infantes puede practicar el pensamiento crítico con los niños usando documentación como punto de partida. Enfatizamos la actividad participación de los niños en el pensamiento crítico y destacamos algunos aspectos que consideramos importantes cuando se trata de situar el pensamiento crítico en el jardín de infantes. Argumentamos que el pensamiento crítico debe tener en cuenta: que el pensamiento es una práctica social; las relaciones de poder en el diálogo y el movimiento, la experimentación y forma de ser de los niños. Parece importante luchar por los derechos de los niños cuando los fines políticos parecen reducir su activa participación y, en este sentido, discutimos el pensamiento crítico y como los educadores de la infancia pueden prepararse mejor para ese pensamiento en el jardín de infantes.

Palabras clave: pensamiento crítico; pensamiento creativo; participación activa; jardín de infantes

## Pensamento crítico nos jardins de infantes

### Resumo:

Na Noruega os jardins de infantes são vistos como o primeiro passo na educação das crianças. Existe uma discussão permanente sobre como preparar as crianças, desde a tenra idade, para a educação ao longo da vida. Nesse artigo, queremos discutir o pensamento crítico em relação ao cotidiano das crianças nos jardins. Nós focamos em como os professores do jardim podem praticar o pensamento crítico com as crianças usando documentação como ponto de partida. Enfatizamos a participação ativa das crianças no pensamento crítico, e apontamos alguns aspectos que achamos importantes quando se trata de acomodar o pensamento crítico no jardim. Argumentamos que o pensamento crítico deve levar em consideração a prática social do pensar; as relações de poder tanto no diálogo e no movimento das crianças, quanto na experimentação e modo de ser. Isso parece ser importante para lutar pelos direitos das crianças quando os fins políticos parecem reduzir a participação ativa delas, e, sob este ponto de vista, nos parece interessante discutir o pensamento crítico e como os professores de crianças de tenra idade podem se preparar para esse tipo de pensamento no jardim.

Palavras-chave: pensamento crítico; pensamento criativo; participação ativa; jardim de infantes

## CRITICAL THINKING IN KINDERGARTEN

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**Introduction**

In Norway, kindergartens are viewed as the first step in children's education. Kindergarten is voluntarily, and 87% of children aged one to five enter kindergarten. In 2009 the government decided that all children should have the right to day care. In 2010 the Minister of Education presented a white paper, *Quality in Kindergarten*, which emphasized the value of kindergarten as a place for coming to understand democratic processes, where children can actively participating in decision making related to their daily lives. At the same time as preparation for school activities is emphasized for five years olds, the number of children aged 1-3 is increasing, and this represents a big challenge for the early childhood field (Winsvold & Gulbrandsen, 2009). Focus on quality and learning has led to a national discussion concerning kindergarten as an educational arena. Today there are two contradictory movements at work; one of imposing learning strategies and curriculum goals that reduce children's active participation and thinking, and one that emphasizes active movement, experimentation and thinking. It seems to be important to fight for children's rights and active participation, and it is in relation to this tension that we find it interesting to discuss critical thinking and how early childhood teachers can arrange and prepare for such thinking in kindergarten in the best possible manner.

**Critical thinking**

Historically, critical thinking is the foundation for the work of many of the great philosophers we know. Socrates, Plato and Aristotle built their philosophical work on critical thinking. In this tradition we also find great thinkers such as Descartes, Hume and Kant. Many researchers have tried to define critical thinking. For instance, Harvey Siegel defines critical thinking as the disposition to be 'appropriately moved by reasons' (Bailin and Siegel, 2003). This means, he says, to believe and be capable judging, and furthermore to act according to, one's own

convictions based on arguments. To engage in critical thinking one has to have a solid understanding of the principles of good argumentation and the disposition to make use of good arguments. The ability to formulate good reasons is a basic form of knowledge for critical thinking. Siegel says that a critical thinker must know how to judge the quality of good reasons that warrant beliefs, claims and actions (Bailin and Siegel, 2003).

In Norway, the law concerning kindergartens gives children the right to offer their opinions, to express themselves, and to influence their own education. Critical thinking is related to children's rights because such thinking presupposes active participation in relation to meaning making. Critical thinking is perceived as something more than ordinary thinking (Bailin and Siegel, 2003), involving for example practical decision making when getting dressed for outdoor play. Critical thinking as good thinking is reflective, reasonable and responsible thinking. Good thinking is, following Siegel, thinking that meets criteria that are normative and acceptable with respect to making choices and resolutions to act upon. The kindergarten culture and the social context of the lives of children would therefore affect which criteria are looked upon as good or bad. When it comes to small children, it can be considered quite radical to believe that they have the ability and disposition to think critically. However, research on small children shows that they are capable of expressing themselves in different ways as well as reflecting and thinking reasonably about topics that concern them (Stern, 2003.)

### **Critical thinking as educational goals in kindergarten**

One goal in education is to build a foundation for lifelong learning and active participation in a democratic society. Critical thinking can therefore be seen as an important goal in education by virtue of children's possibility to engage in discussions, learning to think independently, make good arguments and act upon them. The right to influence their own lives and to express themselves is emphasized in the Norwegian kindergarten law. Learning and active participation are viewed as mutual processes where children are supposed to participate in the planning and

evaluation of the curriculum. Many kindergartens are for instance practicing meetings for children where they can express their views, discuss, argue and be part of decision making.

Siegel (2003: 307–308) mentions four reasons why critical thinking is important in education. These are:

- Respect for students as persons
- Self-sufficiency
- Preparation for adulthood
- Democratic living

As we can see, critical thinking as an ideal concerns the child as a person as well as a thinker (Siegel, 2003). This means that teachers must recognize children's many ways of expressing themselves. Preparing small children for critical thinking must hence involve understanding them as "meaning making" subjects, as well as listening to what they say. Kindergarten as a learning arena can no longer trust grand narratives that see children as less developed and unfinished subjects. Preparing for adulthood is not just a matter of internalizing already existing knowledge and roles (Siegel, 2003). Rather, attention must be given to children as active participants and equal subjects who do not necessarily need to be changed and prepared for something else. Recently, there has been a movement in the early childhood field away from developmental psychology, which has been criticized for its normative view of children (Kolle, Larsen, Ulla, 2010, Lenz Taguchi, 2010).

Today, where political forces seem to set the agenda for what should be viewed as important to learn in kindergarten, it is a challenge for kindergarten teachers to practice children's rights. It seems that teachers are encouraged to teach children *what* to think rather than *how* they could think (Lenz Taguchi, 2010). There is a potential danger that different topics just transmitted to the children, who thereby fail to learn how to understand, ask questions and evaluate reasons. When children's views are guided into already defined goals, it seems even more important to strengthen the children's possibility for critical thinking in kindergarten. A question

that arises is, however, in what ways kindergarten teacher's best can arrange for, and prepare children for, critical thinking and active participation in a democratic society.

For kindergarten teachers to foster children as democratic citizens, their everyday lives must be the starting point for reflection, questioning, and gathering and assessing information. In addition they also must be guided by an ethics of care, which Siegel identifies as a 'critical spirit.' Espousing a critical spirit means that one does not accept the mere statement of a reason for something as sufficient. It is not enough to state the reason for something through judgment and argumentation—a caring attitude is also required. This means that critical thinking must be understood not just as a 'line of argumentation'; it is also a matter of the ethics of relations, that is, reflecting on how ones arguments affect other people and the environment. In relation to this, Bailin et al. (1999) talks about a 'habit of mind,' meaning an attitude and an obligation to live according to the principles that emerge from good thinking. Thus, critical thinking must also have a focus on action, and children must be given the opportunity to re-think what has happened, not just consider what they think might happen in the future.

### **How can critical thinking be realized in kindergarten?**

There are several educational programs on the market addressing how kindergarten teachers can influence children's learning and critical thinking. In Norway the educational program "Step by Step" is well known, and it is used to develop children's thinking in relation to social competence. The idea is to show children some photos and offer narratives of specific cases, and then ask them questions concerning what might be the best thing to do in a certain situation. We are critical of such programs because they tend to focus on what the children are supposed to think rather than what they might think. Another program, *Critical thinking for children—how to think better* (Elden, 2006), introduces the most important principles and concepts in critical thinking, and focuses on how one's behaviour affects others. This program invites children to practice critical thinking and to be better thinkers by discussing different topics and working out different tasks. We

believe it is important to look at critical thinking as part of children's active participation in processes of learning, but we are critical of programs that focus on predetermined goals and what children are to become, as if they were lacking something in their thinking. We believe critical thinking is more than solving a problem or making a decision where there already seems to be a right answer. There can also be many more factors than assessment of reasons, for instance the quality of the dialogue, that can influence what is understood as good thinking. According to Bailin et al., (1999):

If we are correct in supposing that group deliberation is an important context for critical thinking, then the thinking appropriate to such context must be included in our conception of critical thinking. This means that, in addition to assessing intellectual products appropriately, critical thinking will include responding constructively to reasons and arguments given by others in the context of discussion. (Bailin et al., 1999:289).

Collective reflection and learning is emphasized in the national curriculum, and this is why we also think it is necessary to focus on the ethical quality of relationships (not only in the arguments) to create good thinking. This is especially important because of the power relations between adult and child. Teachers must be concerned about the power present and how it affects the dialogue and children's thinking (Rhedding-Jones, Bae, Winger, 2008:49). In relation to the concept of 'habits of mind,' an open, fair-minded respect for others in the dialogue must be required by teachers practicing critical thinking with children.

Several early childhood researchers value a listening pedagogy (Clark, Kjørholt, Moss, 2005, Kolle, Larsen, Ulla, 2010, Åberg og Lenz Taguchi, 2006). A listening pedagogy emphasizes the role of the teacher and how she or he listens to children's arguments, judgments and meanings. Robertson (1999) looks at social practice as part of critical thinking, and talks about the importance of one's attitudes in relation to practices of rational persuasion. In participating in rational persuasion, she says, one must practice an *obligation to lose*. In dialogue with children this means maintaining an openness to their arguments, which might be different than the dominating norms, and a willingness to reject their own arguments. Although an

obligation to lose seems to imply care about children's views, we also think there is a critical aspect in this concept related to dominating norms. If it is the case that an obligation to lose is based on a better reason, and that reason is based on normative practices, we think it challenges critical thinking with children. Thompson (1999:1) asks questions about dominating practices and says: *whose interests are served by the practices that we have come to recognize as persuasive?* One challenge is the dialogue itself, but there are also challenges related to how children's thinking is understood.

When it comes to dialogue with children we can see a link between the obligation to lose and Habermas's view on democratic dialogue. He claimed that a democratic dialogue is grounded in all participants' equal right to speak, where the idea is to subsequently trust the best and most reliable argument and achieve consensus. It is the arguments that are in focus, rather than which participants are right or wrong, and this makes for a good foundation for a democratic dialogue. However, the arguments, views and judgements will exist in a certain context embodying certain values, rules and norms governing how things should be within this context. When the obligation to lose supports what is to be understood as right and truth, it also governs the children because they feel obligated to practice the normative values. Being a good thinker (and a good child) means to follow the norm. According to Foucault (1999) normative power can reduce diversity and difference in thinking and thereby exclude children's right to think outside the norm. If thinking is legitimized by reason, there could be a danger that children's thinking could be understood as irrational, insufficient and incomplete. This might create a teacher's role the normative force of which is to teach children to be reasonable and good thinkers. We think it is necessary to look beyond the dominating truth about the connection between thought and reason, and would argue that other views on children's thinking can be relevant. We wish to go beyond the good/bad dichotomy, and instead find a way to look at critical thinking as a creative activity rather than reproduction, as opposed to what we perceive many of the educational programs as doing.

## Critical thinking as experimentation

To look deeper into how kindergarten teachers can arrange and prepare for critical thinking, we would like to introduce Gilles Deleuze's view on thinking, a view that we believe can have value in understanding small children's thinking and learning (in Olsson, 2009). In relation to thinking Deleuze values *vitality, event and lines of flight*, and he understands thinking as making new discoveries and new connections. Deleuze claimed that knowledge could limit thinking, and he wanted thought to be challenged and experimented. He resisted knowledge understood as existing facts and finding solutions to well known problems. Ninni Sandvik, a Norwegian early childhood researcher looks at Deleuze's perspectives as especially useful in relation to toddlers in kindergarten (in Kolle, Larsen and Ulla, 2010). What characterizes Deleuze's concept of thinking is the idea that thinking leads in any direction. Thinking cannot be planned in advance and has no beginning or end. Sandvik talks about thinking as experimentation, a kind of thinking that focuses on the unprivileged and the chaotic and that can be discovered through lines of flight. Lines of flight have connections to creative thinking because thinking escapes from standardization. They are instances of thinking 'outside of the box', and can lead in any direction.

Through the concept *assemblages of desire* children and teachers can create lines of flight and make new understandings. In an assemblage of desire there is a different logic involved than in conscious thinking, namely a bodily logic (Olsson, 2009). Desire is then always assembled and it is always connected to language and bodies. When observing children's desires, teachers can discover and challenge children's movement and experimentation in learning and thinking. Critical thinking can develop by looking beyond logic, stereotypes and rational solutions by creating interesting connections with children's desires as starting points. Sandvik thinks that children's thinking can be limited by normative practices that can prevent lines of flight to happen. She thinks small children's thinking and movements are in line with Deleuze's philosophy, and by their play and being in the world they create lines of

flight that challenge norms and habits. To acknowledge children's way of being and thinking in the world, we will argue that critical thinking can be seen as experimentation. In that case, we can see the link between critical thinking and creative thinking when we wish to develop children's critical thinking.

While critical thinking can be described as: "strictly analytic and evaluative, an algorithmic process that consists in arriving at the correct evaluations of ideas, arguments or product" (Bailin and Siegel, 2003), creative thinking is described as: "strictly generative, the kind of thinking that allows breaking the rules." While critical thinking is grounded in certain and dominant criteria, creative thinking tries to break with the rules of such thinking. As we understand it, there has traditionally been a gap between critical and creative thinking. However, Bailin and Siegel discusses the relation between critical and creative thinking. They argue that critical thinking is an important requirement for creative thinking and claim that it is "evaluative, analytic, logical aspects to creating new ideas or products and an imaginative, constructive dimension to their assessment" (Bailin and Siegel, 2003). With our focus on critical thinking and kindergarten as a learning arena this is an interesting aspect.

### **Documentation as starting point for critical thinking with children**

Pedagogical documentation (*pedagogisk dokumentasjon*) can be viewed as a democratic practice that emphasizes creative and critical thinking (Kolle, Larsen, Ulla, 2010, MER, 2006, Åberg and Lenz Taguchi, 2006). By using various documentations, such as photographs, narratives, or videos as starting points, teachers can discover children's desire and learning. By documenting children's movement and experimentation, the documentations can be brought back to the children for reflection and discussion (Kristoffersen, 2006). In that way children and teachers can share their views and transform their thinking.

The documentations give the children something concrete to reflect upon together with other children and adults. They become a starting point for new choices, but it is also possible to reconstruct what has happened and how and what the children

thought previous to a given incident (Kristoffersen, 2006:62, our translation).

The documentations act as door openers to discovering normative practices, talk about them together with the children, challenge them and create new ethical reasons and justifications for their practices. To do this, teachers must reinstall themselves in the events they share with the children (obligation to lose) and actively try to let the children's feelings, desires and assumptions affect them so that they could be different in themselves (Lenz Taguchi, 2010).

Lenz Taguchi (2010) is critical to normative practice as the ideal for good thinking. She argues that a democratic dialogue must be open to an *ethics of resistance* where deconstructive dialogues can be possible. Here the idea is to make visible dominating thought and actions so that new ideas can develop. With respect to an ethics of resistance an obligation to lose would mean questioning knowledge and power, and actively try to change the dominating power relations and open up for diversity and difference, and then oblige oneself to the argument and the actions the group find ethically reasonable. To arrange and prepare for critical thinking in kindergarten this approach would mean establishing a kind of creative thinking where one aim is to seek other perspectives and judge them in relation to the context of the thinking. We would like to show an example of what we understand as an instance of how critical thinking practices can be realized in kindergarten. We think that critical thinking sometimes has a purpose, but not necessarily a purpose of answering questions or solving problems. Instead the thinking is pointed at everyday events where the aim is to break loose from standards so that other views become possible.

The kindergarten teacher Anna in the dialogue below (Moxnes, 2010) is rethinking an episode from outdoor play where she was searching for a shovel together with the children. The narrative that Anna herself has written, and now retells for the children, shows that the searching is interrupted by another teacher who asks Anna to take the telephone. In presenting the narrative she is curious about the children's views on the daily life in kindergarten.

Anna: When we were searching for the shovel, the other teacher tells me to answer the telephone. I find it a bit annoying that I answer the telephone when I am doing other important things.

Sigrid: Why is that? Why couldn't you help the other teachers more?

Anna: Should I go and answer the telephone and search for the shovel at the same time? What do you think I should do?

Sigrid: Help them!

Anna: Help them? Because when I came out again ...

Sigrid: No, while you were talking in the phone.

Anna: While I was talking in the phone?

Sigrid: You could just take the phone and do like this ... (shows with her head and shoulder how to place the phone).

Anna: Should I place the phone between my ear and shoulder, then?

Sigrid: That's what my mom use to do.

Anna: Yes, what do you think of that?

Kjetil: That you shouldn't do it.

Anna: What do you think I shouldn't do?

Kjetil: Instead you should ask them if they could stay longer so you could help the others.

Anna: If the other teachers could stay out a little longer so I could help the others?

Kjetil: Yes

Anna (to Live): Do you also think so?

Live: Yes.

Kjetil: Because you have to help ... if you promise something you have to do it!

Anna: Yes, that's important. And you were thinking that I didn't fulfill my promise?

Kjetil: Yes, but you tried, but it didn't work.

Anna: Oh yes?

Kjetil: Yes, because you had to help another teacher.

Anna: Yes, I had to, and I sometimes find it a bit difficult.

Kjetil: Yes, I wish there could be many teachers here.

Anna: What do you think could happen then?

Kjetil: Well, uhmm (quit)

Anna: What could happen?

Kjetil: If one adult must leave, there would be another there.

Anna: So, if one teacher had to go, a new teacher would step in and continue what was going on?

The kindergarten teacher has an obligation to lose when she participates in the dialogue with the children because she is willing to change her professional practice as a result of the children's responses. The children's views made visible the dominating telephone discourse and other discourses that affect children's play and learning, and by asking questions Anna is trying to open up for deconstructions and different views and understandings.

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