

1. Role play or imaginary play

Linear regressions describing the relations of other variables to the amount of children spent time in role play

In the analysis hierarchical linear regression is used to control children's age, country (1 = Finland, 2 = Taiwan) and gender. This is done to prevent these variables as functioning as intervening variables. Because there is twice the amount of children from Finland their impact on the analysis is stronger than Taiwanese children's and weighting case is not used.

Table 1. Children's strategies in relation to the amount of role or imaginary play

Children's strategies	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	0.086	0.011		8.039	< .0005
Country	-0.026	0.002	-0.271	-10.516	< .0005
Gender	0.022	0.005	0.115	4.523	< .0005
Closed (Dominant and Withdrawn strategies added up together)	0.06	0.016	0.103	3.88	< .0005
Accommodative answers with children added up together	-0.053	0.022	-0.063	-2.398	0.017

Method: Stepwise. (Criteria: Probability-of-F-to-enter \leq .01, Probability-of-F-to-remove \geq .05).Dependent variable: B4. Role play or imaginary play. $R^2 = .120$.

Children who play a lot of role play tend to have more closed strategies in the interview when presented with different social situations (Beta = .103). This means that children are not easily influenced by others opinions or situations. These children tend to follow their own ideas more strongly than others. These children also tended not to have accommodative strategies with other children as frequently (Beta = -.063). The children who play a lot of role play seem to follow strongly to their vision and ideas no matter what others think. In role play these children tend to follow their images strongly.

Table 2. Children's gender and skills in relation to the amount of role or imaginary play

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	0.05	0.012		3.971	< .0005
Country	-0.025	0.003	-0.259	-9.804	< .0005
Gender	0.018	0.005	0.094	3.684	< .0005
Is creative in pretend play .	0.012	0.002	0.132	4.914	< .0005

Method: Stepwise. (Criteria: Probability-of-F-to-enter \leq .01, Probability-of-F-to-remove \geq .05).Dependent variable: B4. Role play or imaginary play. $R^2 = .118$.

Girls tend to play more role plays than boys (when boys = 1 and girls = 2, Beta = .094).However, it should be acknowledged that in Taiwan boys play more role or imaginary play in average. According to educators'

evaluations children who play more role or imaginary plays are more creative in pretend play (Beta = .149). This is a relieving connection, because it shows that the educators are aware of the children's capabilities even though they pay attention to it very little and stay far away from role plays.

Table 3. The learning environment qualities in relation to the amount children play role play

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	0.079	0.024		3.252	0.001
Country	-0.028	0.004	-0.294	-7.5	< .0005
Gender	0.02	0.004	0.105	4.381	< .0005
Educational content rises from everyday action, not from beforehand decided content or themes	0.009	0.002	0.095	3.673	< .0005
There are several immigrant children or children from different cultural backgrounds	-0.009	0.002	-0.121	-4.139	< .0005
The educators of the group have been perpetually short of time and short of resources	-0.011	0.002	-0.139	-5.204	< .0005
Children's curiosity and exploration is considered a lot in the planning of activities	0.027	0.003	0.296	7.704	< .0005
Every play has a clear distinctive place	-0.018	0.003	-0.185	-5.935	< .0005
The creativity and self-expression of the children are on the minds of the educators constantly	-0.023	0.004	-0.213	-6.296	< .0005
The work in the day care center is natural. sustaining and harmonic	0.013	0.003	0.119	3.825	< .0005
There are possibilities for versatile building and playing with material	0.021	0.004	0.198	5.076	< .0005
Learning and activity environments are emphasized and are versatile	-0.013	0.004	-0.127	-3.779	< .0005
We work a lot with information technology (computers. tools and digital media)	-0.01	0.003	-0.121	-3.83	< .0005
There is a lot of role play in the group	0.009	0.003	0.082	3.221	0.001
Religious-philosophical orientation is important in the educational activities	0.01	0.003	0.087	2.949	0.003

Method: Stepwise. (Criteria: Probability-of-F-to-enter <= ,01, Probability-of-F-to-remove >= ,05).Dependent variable: B4. Role play or imaginary play. $R^2 = .225$.

When children play more role or imaginary play, the educational content tends to rise from everyday action (Beta = .095) and the curiosity and exploration is considered a lot in the planning of activities (Beta = .296). The educators agree that there is a lot of role playing taking place (Beta .082). The work in the day care centre seems to be more harmonious (Beta = .119) and unhurried (Beta = -.139), the possibilities for material play are good (Beta = .198) even though plays do not have clear distinctive places (Beta = -.185) and the learning and activity environments are not emphasized (Beta = -.127). Religious-philosophical orientation is emphasized (Beta = .087). The creativity and self-expression of children is not a current topic among educators (Beta = -.213) and there are less immigrant children in the group (Beta = -.121). There is also often less work with information technology (Beta = -.121). The general picture seems to be a creative but not very organized environment where the educational content is created during interaction. This environment leaves a lot of room for children's ideas and role development.

Table 4. The near contact's qualities of the children who play more role or imaginary play

Near contact qualities	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	0.019	0.02		0.946	0.344
Country	-0.008	0.002	-0.083	-3.398	0.001
Gender	0.017	0.004	0.09	3.973	0
Near contact plays role or imaginary play	0.679	0.031	0.526	21.815	0
Near contact dominates when somebody takes their toy	-0.048	0.011	-0.109	-4.332	0
Near contacts gender	-0.028	0.01	-0.061	-2.676	0.008
Near contact's sum of withdrawn strategies	0.091	0.029	0.079	3.106	0.002
Near contact's number of siblings	0.009	0.003	0.057	2.543	0.011
Near contact's withdrawn strategy when does not like teacher's proposition	-0.023	0.011	-0.049	-2.075	0.038
Near contact's dominant strategy when teacher proposes something	-0.046	0.015	-0.071	-3.004	0.003
Near contact's sum of dominant strategies	0.082	0.038	0.059	2.17	0.03
Near contacts social skills	0.011	0.004	0.08	2.935	0.003
Near contact's sum of accommodative answers	-0.007	0.003	-0.057	-2.108	0.035

Method: Stepwise. (Criteria: Probability-of-F-to-enter \leq .01. Probability-of-F-to-remove \geq .05). Dependent variable: B4. Role play or imaginary play. $R^2 = .371$.

A child that plays a lot of role or imaginary plays has strong ties with children who also play a lot of role or imaginary plays (Beta = .526). The children who tend to play a lot of role play tend to play with children with similar kind of strategies: Near contacts have also more dominant strategies in general (Beta = .059) and more withdrawn strategies (Beta = .079) but in general less accommodative strategies (Beta = -.057). The near contact also is not easily upset if somebody takes their toy (Beta = -.109). The near contact tends to give a withdrawn strategy if the child does not like teacher's proposition (Beta = -.049). The near contact seems to be more often a boy (boy = 1 and girl = 2, Beta = -.061) and the educators evaluate the having good social skills (Beta = .080). The near contacts also tend to have more siblings (Beta = .057). The pictures of a child that plays a lot of role play and this child's nearest contact seem to be very similar. Similar children share similar interest. They have strong agentive and personal images to apply in their role play.

Table 5. The popularity of children who play more role or imaginary play

Peer contacts	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	0.07	0.01		7.256	0
Country	-0.025	0.003	-0.256	-9.687	0
Gender	0.02	0.005	0.109	4.311	0
Percent of observed as peer contact	0.038	0.009	0.118	4.38	0
Do like to play N	0.006	0.003	0.062	2.377	0.018

Method: Stepwise. (Criteria: Probability-of-F-to-enter <= .01. Probability-of-F-to-remove >= .05). Dependent variable: B4. Role play or imaginary play. $R^2 = .122$.

Children who play more role or imaginary plays have more peer contacts than other children (Beta = .118) and they are also mentioned as a popular friend to play with more often (Beta = .062). Children who play more role or imaginative plays seem to bring favourable qualities to the play. Children's plays get richer and the themes of the play stronger with an imaginative friend who can sustain the creative imagination through complicated and exciting processes.

1. How to use role and imaginary play in direct education?

Role playing or imaginary play is almost non-existent in the daily direct education sessions in Finnish day care centers. How to apply more imaginative roles in teaching? How to make the learning materials to become alive, socially constructed and motivated? The numbers, letters, physical laws, nature and historical events can all have personal qualities. By using motifs in processing systems children can more easily make sense of the dynamics of the situation. How to make the learning content more personal and dramatic?

2. How to add more scaffolding in the role and imaginary play?

There are very few cases of scaffolded role or imaginary play in Finnish day care centers. The educator needs to be aware of what the children are up to, to understand what is important in children's activities and enrich children's play when needed. What would a plan for a scaffolded role or imaginary play look like?

3. How to take advantage in role and imaginary play during basic care?

There are basically two ways to use imagination during basic care. 1) Children can imagine themselves in different roles and activities doing motivated basic care and 2) children can imagine the clothes and tools of basic care having roles. How to make basic care situations more motivated, exciting and creative for a better and more effective basic care? How to use roles in learning the different tasks needed in basic care? How to use roles to help children master their tasks more autonomously? How the roles could help children to self-direct their basic care chores?

4. How to apply role and imaginary play in eating situations?

Using role or imaginative play is almost non-existent during eating situations. How to change eating situations into dramas with celebrations, packed lunches, excursions, different roles and cultures? In different roles children could participate in the regulation of the eating situation both on personal level and on group level. What kind of situations and roles would help the eating situation to become a collectively designed process?

5. Should the roles of educators in Finnish day care centers during outdoor free play be reconsidered?

Children play a lot of role play or imaginary play during free outdoor play, but the educators are far away and do not attend to those situations at least in Finnish day care centers. The good thing is that children have the possibility to play their creative plays without adult interfering. The downside is that the educator is not aware of children's processes and the inner life and needs of the children remain unknown. Moreover, children that can not get role play started or can not maintain it do not get help. Children that are happily playing creative role play do not need additional help.

6. Would it be possible for the educator to acquire more versatile roles in day care?

A motivated and dynamic image helps children to integrate the action into their personal point of view. Early childhood educators can use different roles consciously to create certain moods, to get the message through and to give perspective to an issue. Give examples of different roles and situations to inspire more versatile educator roles in day care.

7. How to enhance children's participation in the role creation and theme building in the group?

In role play children use and develop their own schemas to create new social systems. Different children's roles can be used consciously to help children in their participation. Children can be directors, guides, teachers, nurses, polices or movie stars. A role helps children to try new things, for example, a wounded animal can let others to comfort and come close. Different roles give children perspective and help them to find new qualities in themselves. What kind of themes would make it possible for children to participate in the theme and role production on a group level? Give an example.

8. How to protect children's privacy in their rich role and imaginary play?

The results show that children's role play is best alive and kicking in private hideaways. This precious quality should be maintained. There is no need of adult intervening when things develop well. Children need secluded places and enough time for their plays to develop. How to do this concretely in the busy and crowded everyday?

9. How to help the educators to get a better contact to children's imagination?

The children can only interact with things that they can perceive. Moreover, children can perceive only things that they can imagine; otherwise the things are just senseless stimulus or noise. To get in contact with children's imagination is to get in contact with children's tools of producing their life. If adult and children can meet within a shared view, the adult gets in contact with children's inner life. With entangled and multifaceted role play the adult can contact the child as deep as possible. How can this be acquired? Give an example.

10. What skills does the educator need to participate in children's role play?

To play role play is not teaching and it is not care. The educator needs to be open to children's ideas and ready to do a constructive input in the shared process. The educator needs to prepare for surprises, alternatives and dead ends. The teacher needs to be ready to throw away the ready-made objectives, as any of the children's initiative might be an enriching new development making it possible for the teacher to get in contact with even the most fundamental and basic driving forces of children's life. What kind of preparation, attitude or situation would help the adult to meet children in a common process? Try to give examples.

11. How to work with children's social strategies during role of imaginary play?

Children can use only those schemas in their role play they can have a connection to or they can create (cf. Reunamo, 2007b). Children who are used to role play have strong images that they defend if necessary. Nevertheless, even children who are not equipped with forceful strategies use those strategies they have in their toolbox. With role play these tools can be exposed, developed and tested in different situations. The teacher can confront children with different tensions and enrich their toolbox. Try to give practical examples of role play situations, in which children have to create alternative paths to advance.

12. How to help children who do not play role or imaginative play to get started in the play?

Withdrawn children may have a rich imaginative mind just waiting to be exposed and blossomed. Dominating children with their determined minds can open up their strategies in creative situations. Adapting children with their consideration for others are easily drawn into processes with others. Some children need educator's help in getting friends to play, getting their imagination flowing or to share their ideas. Children with not so definitive driving ideas need more refined help in realizing their ideas. Give examples of motivation and nourishment.

13. How to help children who have difficulty in sustaining role or imaginary play to get more engaged in the play?

Sometimes it is not enough that children are given an undisturbed place for role play. Some children get frustrated easily if the play does not advance. Some children need several experiences of successful imaginary processes to keep on giving effort to the development of the play. Role play needs determination and the possibility to prevent impacts from the environment. Role playing can be learned. How can the educator help in this learning? Give examples.

14. How to help less popular children to get skills to enhance social processes among peers?

Children who cannot create and sustain engaging and creative plays are less popular and have less friends. There is a danger of a vicious circle: Popular children get even better in their skills. Children with less skills and determination get no practice in building socially interesting constructs. The less popular children need educator's help to get involved and acquire valuable experiences of supplying content to a shared cultural development. True and sustaining self-esteem is built on the fact that one can feel to be a contributing member of the group. How can this be done in? Give concrete examples.

15. How to involve children under 5 in role and imaginary play?

Children under 5 are less involved in role and imaginary play (see **Virhe. Viitteen lähde ei löytynyt.**), probably because developmental reasons. Younger children probably need help in getting involved in the play. What kind of things, activities, properties and toys would keep young children involved in role play. Describe examples.

16. How to involve children over 5 more in drama play?

Children over 5 seem to lose some of the intensity of role or imaginary play as they grow older. The educator could provide children with new ways to play, for example in different kinds of drama play. Older children can also perhaps give way to considering others' feelings also during the drama and the play could be a more conscious way to build a shared presentation. Children with less practice with expressing their ideas can perhaps get more room for their less robust ideas in a group of older children and get bolder.

