Exploring young children's voices

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Appendix C

C.1 Coding Systems

Coding system 1. Categories, Subcategories, and Properties Used for Coding Children's Expressions

Category	Subcategory	Properties	NV	V	C
1. School activities	01. Knowledge & skills	Commenting			
		Cooperating			
		Judging			
		Demonstrating			
		Suggesting			
	02. Attitude	Showing			
		Collaborating			
		Adjusting			
		Rejecting			
		Inviting			
		Assigning			
		Moving			
		Choosing			
		Helping			
		Persisting			
		Competing			
		Postulating			
		Preferring			
2. Classroom organization	03. Rules	Accepting			
		Adopting			
		Stepping over			
		Rebelling			
	04. Routines	Following			
		Fitting in			
3. Teacher's roles	05. Cultural Mediator	Conveying			
	06. Educator	Sanctioning			
		Confirming			
		Passing on			
		Correcting			
		Attending			
	07. Supporter	Mediating			
		Equipping			
		Connecting			
		Paying attention			
		Initiating			
		Inquiring			
		Assisting			
	08. Manager	Intervening			
		Learning			
		Adding			
		Obliging			
	09. Conversation partner	Hearing out			
	10. Designer	Devising			
		Preparing			
4. Relations	11. (With) Peers	Narrating			
		Showing			
		Demonstrating			
		Inviting			
		Role playing			
		Interchanging			
		Competing			
		Rejecting			

12. (About) Family	Narrating
	Showing
	Demonstrating
	Inviting
	Preferring
	Questioning
	Accepting
13. (Towards) Others	Narrating
	Showing
	Demonstrating
	Questioning
	Devising
	Mediating
14. (On) Specific issues	Narrating
	Showing
	Demonstrating
	Preferring

Note. Kinds of expressions: NV (non-verbal) – V (verbal) – C (conation: feeling, wanting, thinking)

Coding system 2. Categories, Subcategories, and Properties Used for Coding Children's Expressions

Category	Subcategory	Properties (and Relations)	P/F/O	(N)V	C
1.(Attitude towards) School activities	01.Affect	Suggesting			
		Preferring			
		Rejecting			
		Assigning			
		Revealing			
	02. Cognition	Demonstrating			
		Commenting			
		Questioning			
		Narrating			
	03. Behavior	Collaborating			
		Postulating			
		Showing			
2. Classroom organization	04. Adoption	Following			
		Accepting			
		Imposing			
	05. Modification	Ignoring			
		Adjusting			
		Opposing			
			i / r / a		
3. Teacher's roles	06. Instructor	Obliging			
		Learning			
		Adding			
	07. Facilitator	Initiating			
		Assisting			
		According			
	08. Educator	Mediating			
		Attending			
		Complimenting			
		Correcting			
		Passing on			
		Care taking			
	09. Cultural Mediator	Conveying			
		Exchanging			

Note. A relational component, or a combination of relational components, can be added to all the properties for: P (Peers) / F (Family) / O (Other(s), including the researcher, but not the own teacher of the child). (N)V: (non) verbal. C: Conation (feeling, wanting, thinking). The kind of the child's expression, in relation to his teacher, is added to the properties in Category 3 by: i (in interaction with), r (in the role of), or a (about, without the teacher being present).

C.2 Instructions For the Use of the Coding System

Case studies 4 and 5: Play in the Play Area, Propositions and Semi-Structured Interview

Tools:

- Video recordings (play in the play area, propositions and semi-structured interview)
- Transcribed data of the video recordings
- Structure of analysis (scheme of steps in coding system, Appendix C.3)
- Definition of the coding system (Appendix C.4)

Step-by-step plan:

1. Watching the video recordings

The first part of the recordings shows children playing in the play area. Lennart (at the start standing in front of two children, wearing a purple colored t-shirt) and besides him stands Bernadette (long hair, black and white dress and a black cardigan). The other two children are Jan (friend of Lennart) and Elza (friend of Bernadette). Time of recording: 70 minutes.

The second part of the recordings consists of the (non-)verbal responses to propositions and the semi-structured interview. Lennart (brown shirt) and Bernadette (purple shirt) are sitting next to each other at the table in the play area. Jan is sitting on the opposite side of the table, next to the researcher. Time of recording: 20 minutes.

2. Coding transcribed recordings

The coding of the activities in which the focal children, Lennart and Bernadette, are involved, is based on the transcribed data. Although the aim was to transcribe as literally and concrete as possible of what is shown in the recordings, it is impossible to guarantee total objectivity. Interpretations of what is shown, choices in what is and is not transcribed, and confrontations with inaudible expressions by the children, are unavoidable to some extent. Watching the video recordings is, also for that reason, always a necessary first step in coding the data.

The coding of the data, as a second step, has to be performed for each child separately.

3. Using the structure of analysis: construction of the codes and the coding system

By each code that is linked to transcribed expressions, the case study child (Lennart or

Bernadette) is the focus in the coding processes.

The codes are constructed in such a way that coders have to follow each level and each step within each level of the hierarchical coding system to guarantee that all options in choosing the best code(s) are considered (see Appendix C.3).

Codes, for example, look like:

1_02_nv_a_demonstrating_P

In this case the child's expression is related to *school activities* (category 1), in which the child apparently shows knowledge about how something has to be performed: *cognition* (subcategory 02) in a *non-verbal* way (nv) of *acting* (a), showing of a certain *skill* (demonstrating) to a *peer* (P).

Another example:

3_06_a_v_c_learning_O

This example refers to the child's expression about *the involvement of the teacher* (category 3: teacher's roles), with the teacher acting as an *instructor* (subcategory 06). The expression of child is about the teacher, while the teacher is probably not present at the moment (the a of about), and is expressed verbally (v) in which also an element of *conation* (c) is audible, like: "*I think* (conation) that it is quite good, that miss X *teaches* us how to write letters (learning)." As this expression is addressed to the *researcher*, an O (Other) is attributed to the code as well.

The c of conation is attributed to a code when the child expresses elements of meaning or sense in literally using forms of *wanting, feeling, thinking:*

Focal child: "I don't want to…" or: "I think, X (peer) is right, for…."

Thinking here is used in the meaning of *to reflect on* or *to consider*.

The c of conation is also attributed to a code, when the child's expression is an answer to a question or remark of somebody else, who is referring to wanting, feeling or thinking. For instance, when the researcher is asking the child: "how do you feel when you…" and the child answers with: "sad", the answer is rephrased from the perspective of the child as: "then I *feel* sad" and so a c is attributed to the code linked to the child's expression.

The properties (demonstrating, learning et cetera) are in fact the heart of the codes. The properties are fixed parts of the subcategories, and subcategories are exclusively linked to categories. So it is, for instance impossible to link a property, like *assigning,* as a fixed part of subcategory 01 to subcategory 03, nor it is possible to link, for instance, subcategory 04

(fixed part of category 2) to another category. On the other hand, it is possible to link more than one code to one and the same expression of a child.
For instance:

> Focal child to a peer: "You'll have to start all over again, when you have made a mistake."

Contributing a code in category 1 (school activities), subcategory 02 (cognition), with an adequate property is likely, but at the same time contributing a code in category 1 (school activities), subcategory 03 (behavior) and an adequate property is also possible. Two separate codes are then linked to one and the same expression.

It is also possible that two separate codes, from two different categories are linked to one and the same expression.

For instance:

> Focal child to a peer: "Let's get a canvas first" (cutting and sticking activity)

Contributing a code in category 1 (school activities), subcategory 03 (behavior), with an adequate property is likely. At the same time contributing a code in category 2 (school organization), subcategory 04 (adoption) and an adequate property is also possible. Again, two separate codes are then linked to one and the same expression.

When the child's uses expressions or is acting and others are involved: other children (peers, siblings et cetera) or adults (other teachers, his parents, the parents of peers, the researcher and so on) the letters, *P (peers), F (family members)* and/or *O (others)* are added to the codes. Attribution of P, F, O is possible for all codes related to the properties in de the three categories. With the attribution of these letters the relational aspects of the child's expressions is noted. The relation with the own teacher(s) of the child is not recorded with any of these letters. The third category is focused on the teacher – child relationships.

Category 3 with the different subcategories and properties is developed for coding the different roles of the teacher from the perspective of the child. In what way does the child approach the teacher, seeks her attention, what are the child's views on his teacher, how does he respond to his teacher, and what is the child telling about his teacher? These images, expressed by the child, may be contradicted to the teachers own opinions, as well of those of the coders. In that sense, the teacher's acting is not coded as such, but only from the perspective of the child during the daily activities, play in the play area, in interviews et cetera. To distinguish the different manifestations of the relational aspect of teacher and child, different letters are added to the codes in category 3.

For instance:
- Focal child to the teacher: "Can you help me?"
  Code: 3_07_i_v_a_assisting
  (the i from in *interaction with* is attributed after the number of the subcategory, which is 07 in this case).
- Focal child as a teacher in the play area to a peer: "I am going to help you."
  Code: 3_07_r_v_a_assisting_P
  (the r of *in the role of* the teacher is attributed after the number of the category, which is 07 in this case).
- Focal child to the researcher about the teacher: "Miss X is helping me with a difficult task."
  Code: 3_07_a_v_a_assisting_O
  (the a of *about the teacher*, without the teacher being present or interfering, is attributed after the number of the subcategory, which is 07 in this case)

The letters *i, r and a* are only added to codes in category 3, not to codes in the categories 1 and 2.

4. Using the descriptions of the categories, subcategories and properties

To ensure a level of inter and intra-reliability in the coding processes as high as possible, all the elements of the coding system are provided with a written definition. Coders have to consult these definitions, for deciding which codes are the most adequate to describe the child's verbal and non-verbal expressions. It is of major importance to take concrete perceptible behavior as a starting point for coding, and to avoid interpretations of expressions as much as possible. The interpretation of expressions will take place afterwards.

Coding play in the play area may lead to some complications in referring to category 3. This category is used in relation to the role the child is taking. When the child is acting as the teacher, the expressions are coded in category 3, adding an r (of the child in the role of the teacher) after the appropriate subcategory as an element of coding. The interference of the child's teacher is probably limited while the child is playing in the play area. The child may refer to the teacher, talking about her and then an a is added to a coded expression. In playing the teacher, the child may show in his expressions images of a real or imaginary teacher, but at this point it is of no importance. Coding child's expressions in any category, including the third category, should only be based on what is perceptible in the child's acting and not on what is or is not presumed.

For instance:
> Focal child, in the play area, to a peer: "You have to draw a circle first." Peer: "Do I?" Focal child: "Yes, for I am the teacher."
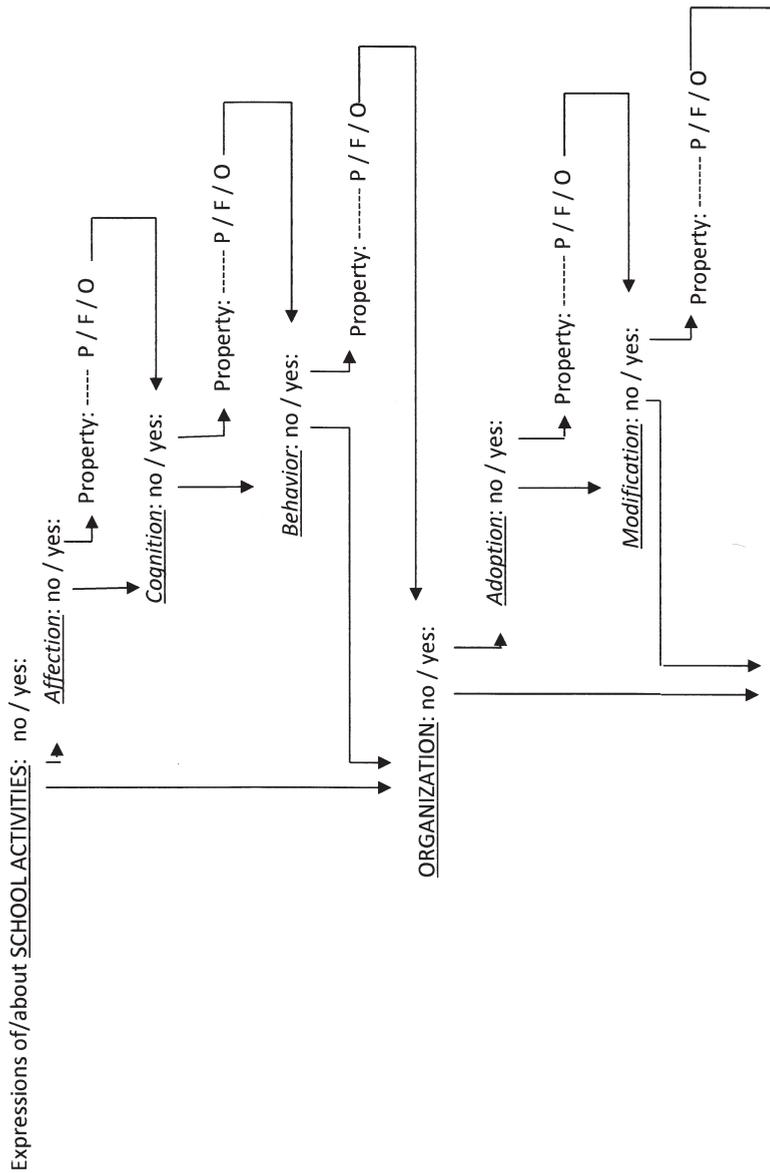
Looking at the first expression of the focal child, a code related to the third category is
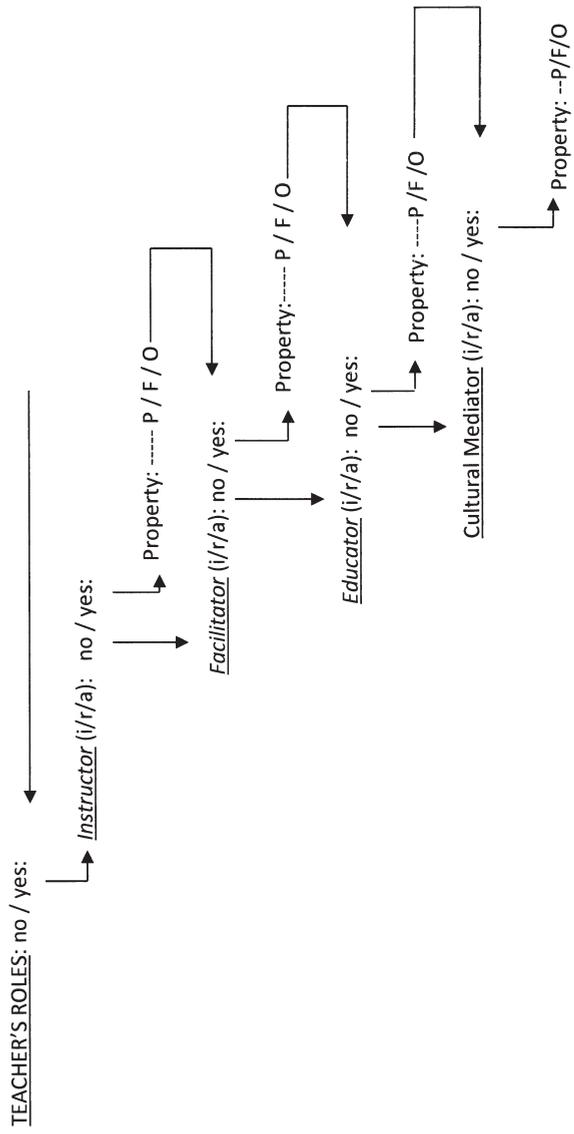
obvious, knowing the context and the following expressions of the peer, as well as of the focal child. If it not for certain whether the child is or is not performing as a teacher, because the child does not confirm or mention his acting as playing the teacher (for instance, another child is playing the teacher already, or changing of roles has taking place more or less implicitly), coding an expression in category 3 is not appropriate. On the other hand, coding the same expression by the child in category 1 and/or 2 is obvious.

C.3 Scheme of Steps in Coding

In using the coding system for coding expressions of children and adults *all* the steps, indicated by the arrows, have to be followed:

TEACHER'S ROLES: no / yes:

Instructor (i/r/a): no / yes:

Property: ----- P / F / O

Facilitator (i/r/a): no / yes:

Property: ----- P / F / O

Educator (i/r/a): no / yes:

Property: -----P /F /O

Cultural Mediator (i/r/a): no / yes:

Property: --P/F/O

C.4 Definition of the Coding System[11]

Introduction

The coding system provides a systematic and transparent approach to define an actor's utterances about school issues. In the first place, the coding system is meant to code school children's utterances (in this research, the utterances of the focal children), but the system is used for adults' utterances - the parents and teachers of the focal children - as well.

The coding system consists of three categories with nine subcategories, and each subcategory contains several properties. All these elements in the coding system have their own definition. Some examples are added to defined properties, showing how to use the coding system in an adequate way.

In coding the actor's utterances it is possible to add a symbol, representing the relationships of interaction the actor is referring to. When the actor, a focal school child, is involved with or referring to a peer, a P is added to the code. When the focal child is referring to family members, a F is added, and when he is referring to others than peers or family members an O is added.

With P (for peers) the other school children in class are meant, with whom the focal child is in interaction or referring to, including the ones who are also involved in the research, and school friends.

With F (for family) the focal child refers to family members, who are not present in school most of the time, like parents, grandparents, and little or much older siblings. On the other hand, at some occasions family members are in school, for instance when they take their (grand)children to school or are participating in some special school activities, and some of the focal children have siblings in school.

An O (for others) is used for relationships with everybody who is not a peer, family or the focal child's own teacher. It concerns most of the time adults, like family members of peers, or neighbors, all outside schools, or other teachers and professionals in schools, as well as the researcher.

It is possible to add more than one symbol to a certain utterance of the focal child, for instance when he is interaction with his own mother and the mother of a peer at the start of the school day (F / O). Or when a focal child is telling a peer a story in which one of his family members was involved (P / F) et cetera.

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11   The coding system is used for coding all the expressions of the focal children. Examples are derived from their expressions, but the coding system could in fact be used for all young children in the school context. Every time the child is referred to as 'he', is also meant the child as 'she'. As the coding system is used for coding teachers' and parents' expressions as well, later on in the research, some examples of their expressions in relation to the coding system are added in de description of the system too.

Category 1: Attitude towards school activities

Category 1 refers to the whole of educational content and school activities, the focal child is confronted with during school times, and the way he is dealing with the school program.

Subcategory 01: Affect[12]

The feelings and preferences a focal child expresses about the school program, verbally and non- verbally, to himself or to others.

Properties:

Suggesting

The focal child responds to an invitation of the teacher: "*who knows; who would like to…?*" (answer of the focal child: "*let's play tag!*") or to an invitation of a peer to play some kind of game. The focal child may invite a child himself: "*look!*" or present a concrete proposal to a peer: "*shall we play a game of numeracy? No? What else?*" In those utterances words like: "shall we, can we, let's" et cetera are often used. The focal child may also invite peers in a non-verbal way, for instance by tapping on a peer's shoulder and pointing at some school materials.

   The focal child often refers to activities and materials, but it is also possible that the child refers to some kind of dilemma or conflict. It is not necessary for the focal child to provide argumentations for expressed proposals. Another person is always involved, at least referred to, though the other may neglect or reject the invitation, when the focal child is suggesting: *["I want to be the father] and then you are the mother."* If the focal child does not accept the peer's (negative) response, nor is interested in a presented alternative, then a code like *assigning* could be more appropriate.

   An example of a teacher's expression connected with the property suggesting:
   "When children come up with something, have a fine idea, they are allowed to tell me and then we may find the time to explore it."

Preferring

The focal child chooses a certain activity from an offered program of activities and/or chooses a peer to share the activity with: "*I would like…*" It is possible that a peer is undertaking some kind of activity and the focal child expresses: "*me too*" or: "*that's what I want to do also.*" An explanation for the preference is not necessary. The preference is visible in an action (choosing a jigsaw puzzle from the shelve) or as a response to the teacher's announcement that is free play time, or the invitation to choose from a range of

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12   The three subcategories as part of category 1 are derived from the research of Vyverman and Vettenburg about children's perspectives. Vyverman, V. & Vettenburg, N. (2009). Parent Participation at school. A research study on the perspectives of children. *Childhood,* 16(1), 105–123.

activities by raising a hand, or putting a name tag on a board with activities. Preferences could be shown also when a focal child is repeatedly choosing an activity and/or a peer to play or work with.

Preferences could be expressed in here and now, but also in de the near future: *'"later on we are going to…"* Preferring could also point at activity-related preferences: "*purple is my favorite color."* In the utterances coded with *preferring,* there is often an indication with conation (thinking, feeling or wanting): "*I want to be the father [and then you are the mother]."* The focal child is often using a superlative such as: "*most beautiful"*, or "*sweetest"* in comparison to other activities, materials or peers *("I like playing in the sand pit the most"*). When the focal child is expressing some feelings of his own without referring to a preference, or he expresses feelings of peers or others, the property *revealing* is more appropriate.

> An example of a parent's expression connected with the property preferring:
> "I'd prefer activities like more theatre and more dressing up in class, and my child does so as well."
> "I'd prefer the children to be outside far more, jolly muddling in nature, which is a fine way of educating children too."

> An example of a teacher's expression connected with the property preferring:
> "Or a very young child who really would like to solve a jigsaw puzzle and he is not capable yet, then I'll say: 'well, have a try'. [And later on another child might help him when necessary.]"

Rejecting
The focal child turns down a certain remark, activity, invitation, or suggestion: "*not at all! No, really no!"* It may concern a reaction to an expression of the teacher, peers or others. The response of the focal child may be verbal or non-verbal, and implicit (without comment): "*no, I'll go…"* as well as explicit: "*but I have made this jigsaw puzzle twice already!"* Rejecting is formulated as denial, correction, acting as an authority (making own rules), neglecting or using the other as an authority: "*No, you can't, for Jan (a peer) won't allow it*." Words such as "no, not" and "never" are often used: "*no!! Don't want to"* or "*we won't do it"* or the opposite is expressed, as a response to the denial of somebody else: "*yes, it is really true*." Rejecting could also be a physical response, like pushing the hand of a peer aside (often in connection with subcategory 3: behavior).

> An example of a possible parent's expression connected with the property rejecting:
> "She [daughter] prefers more difficult jigsaw puzzles. At school it is not possible. And I say: she is allowed, if she wants to."

> An example of a teacher's expression connected with the property rejecting:
> "Or a child who is telling me: 'I can't, I can't, I won't.' I don't want them to use these kind of expressions. [I'd like them to try anyway]."

Assigning

The focal child uses an expression with an obligation in it, leaving no room for the other, or forcing the other to act or respond in a way the focal child would like to. It is a kind of talking in exclamation marks: "*You have to… you must! Now, start coloring!*" The focal child acts as an authority, putting himself in front at the cost of the other: "*I am going to… and so you have to…*" The focal child may indicate to certain (real or supposed) rules and routines: "*first like this, and then like that! Get out of the class room!*" or to a sense of general customs, leaving no room for discussion. Assigning is a directive for getting things done by pointing at someone else: "*[we want so sit here], you get a chair at the table over there*", even literally taking something which belongs to somebody else at the time.

An example of a parent's expression connected with the property assigning:
"I expect the school to offer my child a pleasant time in school."

Revealing

The focal child expresses feelings concerning the school program of activities or the feelings that are provoked by the program, the children, and/or the teacher: "*I think, that is sad.*" Connotations like: "nice, sweet, pity, happy" are also part of those kind of expressions, and also feelings of adoration: "*I am not in love anymore with Jordan (peer)*" or expressions like: "*isn't she cute?*" The same goes for expressions of appreciation or acknowledgement: "*well done, haven't I?*" or: "*I have won the football cup!*" and exclamations like: "*jeeeh; beeeh; ooooh; mwah-mwah*", even: "*au!*" Repetitions of words, mantra-like, could be used by focal children to express feelings towards others or to the children themselves: "*I am good at, I am good at, I am good at…*" or as a qualification of the expressions by others: "*they are being nasty to us.*" Revealing can be expressed verbally or non-verbally. When it comes to non-verbal revealing there is often a relation to certain behavior, like *showing* (subcategory: 03) such as: giggling or laughing, acting short-tempered, hesitating (doubting), crying, screaming (for fun or anger), but also stamping on the ground (acting impatient), hitting on the table (enthusiasm or irritation), putting out one's tongue, clapping hands (while finding the last piece of a jigsaw puzzle). When expressed feelings are linked to own, specific preferences, and often accompanied by a superlative (the most, the least), the property *preferring* is more appropriate.

An example of a possible parent's expression about her child connected with the property revealing:
"[Working, drawing, coloring… He is doing quite well.] Fortunately so."

Examples of a teacher's expression connected with the property revealing:
"To me, the most important thing is: children being happy and feeling glad."
"I have to be careful about thinking too much: 'oh, this is nice… about water for instance. How is water getting into a tap? Where does it come from?' The technical side of it. That is information I really like to share."

Subcategory 02: Cognition

The focal child expresses information and insight about (certain aspects) of activities in the school program by showing his intellectual knowledge and skills, verbally and non-verbally.

Properties:

Demonstrating
The focal child shows visibly and/or audibly what he knows and has learned (correct or incorrect), for instance about mathematics and language, like mentioning the letters or reading: "*it says hop-o'-my-thump"* [pointing at a book title], mentioning numbers, concepts, stories and knowledge of materials - invited or uninvited - : "*I am able to do that; I know how it works."* Word combinations such as: "I can, I know, I need to", are often used, occasionally followed by: "because" or "for". Demonstrating refers to skills as well, acting, and using strategies (intellectual and motorial): showing how, alone or with others: "*first, we make the frame of the jigsaw puzzle"* or: "*we have to look at the examples."* The focal child may show what he knows by raising his hand after a question, to point out, to investigate, to help a peer out or take over, being an example, to find a solution. Demonstrating can also refer to a deliberately expressed certain degree of incompetence: "*I don't get it; I haven't finished yet."*

    Examples of a parent's expression about her child connected with the property demonstrating:
    "[He visits the class of miss X for so long now –] he knows everything."
    "Lately she is very busy playing with words. Making rhymes."

    Examples of a teacher's expression connected with the property demonstrating:
    "Children need certain subjects, certain language and numeracy skills before they are able to move up to the next grade."
    "I notice that girls with a non-Dutch speaking background often like storybooks. It contributes to their language development."

Commenting
The focal child expresses a view or a judgement by adding qualifications to utterances: "really, perfectly well, though, all right, not so [bad], stupid, take it easy, nice! [in the sense of good], best, very, a bit like" or by exclamations like: "*yes!; oh no; so what?; well-well-well; hop it."* The focal child may offer an explanation about his approach of an activity or performance, invited or uninvited: "*all in line neatly; you have to take a good look at your own work; but we have also sweet songs."* Commenting refers to own activities and also to activities performed by others or situations outside the focal child, as a moral judgement: "*for otherwise it is a waste; you are not allowed to take it."* Sometimes expressions show elements of criticism or overruling, and are more or less presented firmly or checking: "*I am good at it and you're not; I know for so long already; then you have to start all over again; a*

green sun is not possible; that is correct, isn't it?"

Examples of a parent's expression about her child connected with the property commenting:
"According to me: a pre-schooler is a pre-schooler. But if he has an interest in initial reading, it is all right with me."

An example of a teacher's expression connected with the property commenting:
"[I think it is a pity that] nowadays the focus is mainly on children's cognitive development. It seems to be the number one aim in education. [And I think it disposes of the other good sides of life]."

Questioning
The focal child asks questions about a situation, an event, a view to gather information about activities, materials, or people. Questions about people are sometimes related to a person around: "*what is your name?"* or to what they do or bring in*: "can you blow that trumpet?; what if there aren't enough?; do I have to do it again?"* Expressions are usually started with: "who, how, what, where, when": "*may I?; you know what?; who is taller?; miss, miss?"*, but also with words like how "many" and "why". When the question of the focal child is also related to his schoolteacher, category 3 is also appropriate.

Narrating
The focal child covers a story to peers or others about an event he was involved in, or heard about, and in which he also may express a view or a judgment. Such a story reveals a certain development or shows a series of connected expressions. When only one remark about an event is shared, the property *revealing* is often more appropriate (subcategory 01). An example of narrating by one of the focal children: "*My mother's father and mother live in M. There is a meadow, rabbits, sheep and cats. There is also a snake. You are not allowed to wander about. There is also a black fly. When it bites, you'll die. So you'll have to be careful."*

Subcategory 03: Behavior

The focal child shows by concrete, visible doing, how he responds to school activities and with whom.

Verbal aspects can play their part, but most of the expressions in subcategory 03 are non-verbal by character.

Properties:

Collaborating
The focal child is involved in activities in cooperation with others: "*he and I play memory"*

or share, borrow and exchange materials. Often there is some kind of social emotional relationship between focal child and peer, when they are interacting together more than once in and outside school, and sometimes physically expressed (walking arm in arm). Collaborating may also refer to helping: "*I am going to help you* [addressing a peer who has dropped a bottle with beads]" or seeking each other's company, and imitation: "*I am going to wait for you; I am going to make a boat just like you; shall we…",* indicating to: we, us or together. Collaborating could also indicate to functional relationships, as children change ideas, come to agreements, take over, support, and bring in their knowledge and skills to achieve collective results. The property collaborating is often connected to properties in subcategory 01 (affect) and/or 02 (cognition).

An example of a teacher's expression connected with the property collaborating:
"[Or a very young child who really would like to do a jigsaw puzzle and he is not capable to do so yet, I'll say: 'well, have a try']. Later on another child might help him when necessary."

Postulating
The focal child makes clear where he stands, often expressing intentions with "always" or "never", and indicating which role is meant for him by acting in a certain way, formulating demands, or assuming what belongs to him: "*no, we are going to do it like this; we didn't hear you, because we don't want to*." A competitive element may be expressed: "*that's what I was going to say too!; I have won*" or the focal child makes sure he is the first to reach the door, when it is time to leave the classroom, taking priority, abandoning a peer, rejecting a peer or something, or arguing and acting to the contrary, as the teacher says "it is time to tidy up" and the focal child responds with "*I want to finish this*", and continues his activity. Postulating is also referring to a situation when the focal child acts as a protector of a peer, for instance by comforting a child, who is crying.

There is always some kind of relationship with somebody or something and the focal child determines the relationship at that moment. The occasion or circumstances may not always be clear, but the acting of the focal child is visible, for instance: taking away a chair of another child; standing in front of somebody (obstruction); pushing somebody aside; taking him by the shoulder; kicking a peer's foot; pulling something out of a peer's hand, or doubting somebody's capacities: "*you really think, you are capable of doing it?*" An element of conation (wanting) is often involved in a positive or in a negative way, for instance in the sense of making an end to it: "*we don't want to do it anymore. It is finished!*"

Examples of a parent's expression about her child connected with the property postulating:
"When he sees opportunities, he prefers to take the lead. In school and at home as well, he is really present […] To me, it is important that the school supports children to stand up for themselves."
"I saw him imitating some boys in his class; acting tough. [And I don't approve.]"

Showing
The focal child expresses in a concrete action how he handles materials, makes a

movement within an activity or as a response to an activity with a certain aim. The action may have some ground, but will not always be expressed. By showing certain (physical) behavior, the focal child may express a view or notion about an activity or event: by sighing, keeping a hand under his head, nodding yes or no, hopping up and down his chair, starting to sing out of the blue, pulling shoulders up, laughing, stamping feet, making faces, hiding, putting hands over ears, walking away, seeking help, crossing arms firmly et cetera. Those examples of behavior are illustrations accompanying formal actions: the focal child says: "*look*" and seeks a peers attention, represents something, expresses a physical condition, or points out to behavior according to the rules and routines in school. Often obvious, sometimes in line with an activity: the focal child claps his hands when he sees a missing part of a jigsaw puzzle, and sometimes as an uncommon act: the focal child holds his package with soft drink to his ear, saying: "*hello? Hello?*"

Examples of a parent's expression about her child connected with the property showing:
"[Miss X once gave her a task with more responsibilities. She was really flattered] and then she started to talk more about school."
"She is a real dreamer. [Sometimes, you'll have to push her a bit]."

Category 2: School and/or class organization

Category 2 refers to the arranged measurements and provided requirements in class and school to support the educational processes in an adequate way. School organization also refers to the routines in class: flexible conducts, according to certain scripts, supporting teachers and children efficiently to achieve a common goal[13].

Subcategory 04: Adoption

The focal child shows in his (non) verbal expressions and behavior that he is aware of the rules and routines in the educational context, knows what is and is not allowed, and how he conforms to the rules and routines in school and class.

Properties:

Following
De focal child acts, while he is involved in activities or between activities, in line with the rules (structure) in the class, without questioning them. Or the child expresses his knowledge of the rules: "*first we have to tidy up*" or the routines in class: "*after playing outside, we're*

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13   The description of category 2 is derived from the work of Leenders, Y., Meijer, P., & Sanders, M. (2000). *Effectieve instructie. Leren onderwijzen met behulp van het Directe-Instructiemodel.* [Effective Instruction. Learning to teach with the help of the Direct Instruction-approach]. Hoevelaken: CPS.

going to eat and drink", and eventually how to perform the rules without judgment: raising your hand when you want to speak up during circle time, putting your arms together before starting an activity, washing your hands after an art activity, helping peers or offering them assistance, showing your work to the teacher when you have finished, or tidying up (using the dustpan and brush to clean the floor near the sand tray). Acting according to the rules and routines is – partly – normative or value-based: shaking hands while leaving the school, speaking with two words ("yes, miss"), performing neatly, asking for permission.

An example of a parent's expression about her child connected with the property following:
"[I am not really familiar with the school rules. But they have rules of course, about what is or isn't allowed]. In my opinion, she is keeping to the rules very well."

An example of a teacher's expression connected with the property following:
"[I create the frame in which children play and learn] as well as the rules to which children have to be committed."

Accepting
The focal child knows about the rules and routines in class and points them out to others, like peers: "*you are not allowed to play at the water tray, for there are four children already"*, or in response to the teacher: "*you said yesterday, it was only meant for the older children"*, when peers or teacher are trespassing some rules or routines. The focal child may also share his accordance with the rules and routines, expressing some form of judgment: "*I am starting to tidy up already"* (without the teacher's sign that is time to tidy up), or: "*I have just said, I am sorry, didn't I"'* (without the teacher being present to instruct the child). It is also possible that the child acts in his own interest – and the interest of others – to the rules: "*come on, let's tidy up now, or we won't be allowed to play outside."* The opposite is also possible: the focal child goes along with a rule, indicated by a peer, without any discussion *("okay"*). The focal child may also transfer the common rules and routines in class to imaginary activities, like playing school, acting as a teacher, while expressing and arguing certain rules and routines: *"you are one of the oldest now, so you are allowed to use the felt tips."*

Examples of a parent's expression about her child connected with the property accepting:
"[Last year there was much more bullying among the kids. It is better now.] And I am telling always: no hitting. That's a rule."
"The school is small and well-organized. The children know each other. I like that. Some moments of quietness around."

An example of a teacher's expression connected with the property accepting:
"Children probably imitate me in the desired acts too: the way in which I hold a chair, open the door, or put a pair of scissors away."

Imposing
The focal child copies more or less the teacher's conduct in living up to the rules and routines, but forces others to act according to the rules: "*get off!*", sometimes even physically - by pulling a peer by his arm -. By using the words: "you have to" or "you must" the obligation of the rules and routines is underlined: "*you have to put it here!" or "now go, and get a pair of scissors and a canvas first."* The focal child leaves no room for a peer to argue.

Subcategory 05: Modification

The focal child is not (exactly) acting according to the rules and routines in class and school. It is possible that the child is not fully aware of the rules and routines, or the child is not able or does not want to act according to the rules and routines, based on explicit or implicit grounds.

Properties:

Ignoring
The focal child does not object against the rules in class openly, but leaves the realization to others or is pretending to be "deaf" for what he is expected to be, do or leave off. A link with category 3 (Teacher's roles) is possible, for instance when the teacher is explicitly asking the focal child to act in a certain way, and the child refuses to sing along with the others during circle time, continues coloring a drawing when it is time to tidy up, to run away from an activity, or to try to sneak away to the playground outside. It is also possible that the child is not aware of certain rules or routines, because he is new in school for instance.

Adjusting
The focal child has a – global - image of the rules and routines in school, but has (explicit) grounds for not keeping to them and to interpret the rules or routines in his own behalf. For instance, when a peer says to the focal child: "you are not allowed to go into the bushes" and the focal child answers: "*yes, I do, for my ball rolled into the bushes."* The focal child acts on his own accord, or informs the teacher: "*we don't want to continue in making this jigsaw puzzle"*, consults peers or the teacher: "*but is it possible then that we....?"* or starts to negotiate with the teacher. When the teacher says to the focal child: "you'll have to make two pages in your workbook" and the child says: "*okay, one page!"*
Sometimes the child makes his own interpretation of a rule. As the teacher orders the children to walk quietly to the door, and the child, instead, more or less dances on his way to the door. It is also possible that the child apparently acts according to the rules, but in fact does not: nodding yes, but is not acting, when the teacher gives the sign to tidy up.

An example of a parent's expression about her child connected with the property adjusting:
"[No hitting at school. That is a rule.] But when your child has been hit four times in school, then you are allowed to hit back. That is what his father is telling too: then you'll have to hit back."

An example of a teacher's expression connected with the property adjusting:
"There are children, who…, well, in my opinion, go overboard."

Opposing
The focal child acts in a way by obstructing the rules and routines of the teacher, verbally or physically. Showing confronting behavior, which is exactly the opposite of what the focal child is supposed to do, and so trespasses boundaries. The teacher: "When we enter the playroom, we are always quiet", and the focal child screams: "*hey-hey-hey-hey-hey!!!*" Provocative behavior or denial is also possible: "*we don't hear you*", when the teacher is saying that it is time to tidy up, and as she replies with: "yes, you heard me", the focal child says: "*no, we don't, we are asleep."* A link with category 3 (Teacher's roles) is possible, when the child takes no notice of the teacher's referring to rules and routines and turns away from those rules, and in fact from the teacher as well, stating firmly: "*no! Never!"*

An example of a parent's expression connected with the property opposing:
"[Why do the children have to start every morning by saying: 'good morning, dear miss X'?] I think, that is silly."

An example of a teacher's expression connected with the property opposing:
"Apparently outside school some behavior is accepted, but in school it is not allowed. Hitting or so, throwing things."

Category 3: Teacher's roles

Category 3 refers to the different kinds of professional relationships of the teacher towards the children in school and class from the perspective of the children as well as from the perspectives of the teachers and parents of the focal children.

Attributed codes to children's expressions referring to teacher's roles are always combined with an indication of the nature the teacher's involvement in the child's expressions, by using one of the following letters referring to possible different kinds of involvement:

i stands for: (in) *interaction* (with). There is contact between the focal child and the teacher, verbally or non-verbally. So the teacher is present and the child responds or appeals to the teacher.

r stands for: (in the) *role* (of). The focal child takes the role of the teacher and the role is mentioned by the child and others in interaction accordingly. This kind of

role play is performed in the play area for instance, in "playing school".

a stands for: *about* (the teacher). The focal child refers to the teacher, makes judgments about the teacher's conduct, or expresses feelings towards the teacher to others, like peers, without the teacher's presence.

Subcategory 06: The teacher as instructor

The teacher takes the lead in or supports curriculum contents and activities, which are offered by the teacher or chosen by the children. The teacher intervenes intentional and goal-oriented, when she considers it necessary or is invited by the child to act in this way.

Properties:

Obliging
The teacher orders the focal child to undertake a certain activity (enforces, assigns, directs) openly or presents directive requests: "*Look at me now! Get a workbook from the shelve. Pick up this piece of paper. Listen for a moment…"* It is also possible that the teacher interferes in the child's acting or conduct to lead the child to the desired goals or results. The child experiences no or very little space to ignore the teacher's wishes or demands, though the child might try to oppose to the teacher. Teacher: "*You are doing well. Just finish it quickly*." The child: "*I would like to stop."* Teacher: "*No, you have to finish your work first."*

Obliging as a property is appropriate when it concerns the organization of curriculum contents. The child: "*I want to play in the block corner."* The teacher: "*No, I want you to do you workbook first."* When it about the instruction of, or to support how to perform a certain activity than the property *learning,* is more appropriate.

> An example of a teacher's expression connected with the property obliging:
> "There are a lot of things children are not familiar with and so then they won't choose them. It will take too long before they get started. So sometimes, we just oblige them to fulfill certain tasks, offering them activities, which they'll just have to perform."

Learning
The teacher devises or chooses beforehand an activity and offers it to a child or some children. The teacher has decided also how the activity has to be performed and/or what the outcome should be. The teacher's interference is concrete, visible in the strategy, the advancement and/or the results. The teacher informs, asks questions *("What is this called?"* Or: "W*hat does it say?"*), explains, demonstrates (for instance: the use of the letterbox), evaluates with the children *("How did it go?"*) or points out to certain aspects of the performance: for instance urging children to copy the teacher's example in the (exact) same way. The teacher might also propose an activity to the children such as: "w*e are going to make some daffodils."* She shows the example and the teacher says: "*Who would*

like to be involved right now?" Focal child: *"Me!"* But the space for children to say no is limited. When children do not want to be involved in the activity at this moment, they will have to perform the same activity at another moment. During activities children may ask the teacher for support, and the teacher responses with appropriate suggestions or actions. Child: *"Miss, look! What next?"* Teacher: *"First, you'll have to make a sharp crease, then open the folded paper and […]."*

> Examples of a teacher's expression connected with the property learning:
> "It appears that children have to be older, but still, you can educate children by the age of four in many social skills."
> "Once we accidently talked about a farm. Farmers, things, wheats and so. And then I brought in a mill and the children were allowed to grind. 'Take a look! What does wheat look like? Just take a bite.'"

Adding
The focal child is performing an activity and the teacher provides some suggestions in line with the performed activity. The child: *"Miss, I have made three drawings already!"* The teacher: *"How nice! You could make a book now, a booklet."* The child nods and returns to his table. The setting leaves room for teacher's instructions, but also room for the children to make own choices. The suggestions by the teacher are not made beforehand, but are developed during the activity. The child may use or ignore these suggestions The teacher may also consult with the children or provide tools. For instance, word strips when a child wants to write some words on his drawing and needs examples of correct spelling.

> Examples of a teacher's expression connected with the property adding:
> "About what children are interested in, there you'll find opportunities. Then you are able to contribute, for at those moments they are involved. They are open minded to education."
> "It is important to have an eye for talented children, and how you can support them forwards step by step."

Subcategory 07: The teacher as facilitator

The teacher provides the children with an appropriate arrangement of an educational context and materials for educational activities and curriculum contents. The teacher may provide new materials and different contents during the activities on her own initiative or at the children's requests.
Properties:

Initiating
The teacher provides materials and tools and offers the children suggestions for activities, enriching the context. The focal child decides whether he agrees to the (new) suggestions:

he is allowed to, but he does not need to. Focal child: "*We would like to make a jigsaw puzzle!*" Teacher: "*Let's see if we can find a puzzle in another classroom, which you haven't made before.*" Child: "*Yes! A difficult one!*"

The teacher mag invite children to get involved, by starting to participate in a new activity or using new materials. For instance, the teacher brings in a game of goose from home, starts to unpack the box, chooses a goose to play with, and the focal child asks: "*Can I join?*" The teacher may also invite children directly: "*Who would like to play…?*" or ask the children for suggestions: "*What would you like to have to…, what do you need…?*"

> Examples of a teacher's expression connected with the property initiating:
> "[I used to make educational arrangements all the time.] And now, everything is there also, but children themselves take whatever they need. Now I arrange freedom for children."
> "We offer them a large choice of activities and a rich environment."

Assisting

The teacher's actions are intended to support children in their activities. Children can ask for the teacher's support. Focal child: "*Miss, there is no blue [pencil]. Could you sharpen one?*" The teacher can also support children at her own initiative. For instance, the children are busy with cutting and sticking and the teacher fills up the gluepots. The teacher, on the other hand, could also guide the children, helping them out verbally. For instance, when the focal child is searching for the right answer, the teacher might support by: "*It starts with roo…",* while pointing at the roots of a plant or spelling a word when a child is trying to read words: "*d-r-y*", while pointing at the letters in a book.

> An example of a teacher's expression connected with the property assisting:
> "We let them 'taste' al possibilities [mathematics, language, social contacts] and see whether children show low achievement, and then how you might assist them."

According

The teacher offers children the opportunity to make own choices for activities. The room for choices may be limited, for instance by organizational rules. Teacher: "*What are you going to do?*" Focal child: "*I want to play with the dinosaurs.*" Teacher: "*There are two children already playing with the dinosaurs.*" Child: "*Then I'll choose the computer.*" Teacher: "*Yes, that's possible. All right.*" So the child is allowed to choose with some restrictions, and the teacher agrees or not, after questioning or offering suggestions.

> An example of a teacher's expression connected with the property according:
> "You have to be open minded to and welcome particular contributions children bring in the educational activities."

Managing

All remarks or actions related to arrangements, structures and rules within and outside the class in school are coded with *managing.* Those arrangements, structures and rules are set in cooperation with and negotiated by colleagues and schoolboard for the implementation and realization of educational processes to cater for children's development and well-being, executed by teachers. This code *managing* is added to the coding system, after the interviews with parents and teachers were held. They brought in aspects of *managing* in their responses to the interview questions. The children, involved in the research, did not bring in these aspects, nor during their daily school activities, play or in interviews, and conversations during the research.

> Examples of a parent's expression connected with the property managing:
> "Communication within school needs some improvement. Notes are passed on rather lately."
> "The school corridors are often very crowded. When you are taking your children to school or picking them up the corridors seem almost blocked with parents, children and teachers."

> Examples of a teacher's expression connected with the property managing:
> "We have a certain teaching method, well, you are using it. But then you are confronted with two extra books, which you'll have to use as well and everything has to be done at the same time, and then you'll just have to cope with it."
> "We communicate a lot about the children. We are really concerned, certainly about some children. We keep a close eye and keep strict records on them, and act in their behalf."

Subcategory 08: The teacher as educator

The teacher contributes to children's educational development and moral education, by paying attention to certain norms and values in line with the school's educational philosophy. The teacher also has a care taking role, appropriate to children's level of development (independency and responsibility).

Properties:

Mediating

The teacher supports the focal child when he is insufficiently capable of performing on his own, or unwillingly to do so. Mediating is related to behavioral and relational aspects of the child himself or a peer. When it is about performing parts of the curriculum and the child needs support, the code *assisting* (subcategory 07) is more appropriate. The child himself can ask for interference of the teacher, for instance when he sees a child crying: "*Miss, X has fallen and he is crying!"* Or the teacher takes the initiative herself. Often the child will argue why he needs the teacher's mediation: the child has a certain interest and/ or something has to be accomplished. The child might want to show his competences to

others, wants to solve a problem (for instance when two children try to obtain different things or, according to the child, a peer does not cooperate fully), demands authority to force children to act in line with the child's own needs or the needs of others. Child: "*Miss, I am in charge. Miss!!*"

An example of a teacher's expression connected with the property mediating:
"I consider it important to make children aware of their taking part in a conflict. Asking them: how did it happen? What could you do?"

Attending

The teacher pays attention to the focal child, for instance, by listening to a child's story during circle time at the child's own initiative. Or the teacher takes the initiative and is asking questions about what the child has been involved in, is observing the child or is seated next to the child and stimulating him while he is at work. She may inquire about children's experiences and perceptions: "*Do you like it? Do you think it is difficult? How is it going?*" or just paying attention by being around. The child may also draw the teacher's attention by approaching the teacher, verbally or non-verbally: "*Look miss, we are doing the same. Green and blue and then yellow!*", asking for response to a certain behavior, activity or story, including answering questions, meant for peers to answer or seeking the teacher's neighborhood, while the teacher is talking to a peer next to the child. The child may draw the teacher's attention to something the child wants to initiate, to the process and/or the results. The teacher offers the children space, goes into the children's remarks or experiences, has eyes and ears for children's planned and unplanned activities, and does not judge (see for judging, the codes *complimenting* and *correcting*).

Examples of a parent's expression connected with the property attending:
"I expect them (teachers) to pay a lot of attention to the children and keep the parents well informed and in time."
"There was a time, she was rather bored at school and then I said you'll have to discuss this with your teachers. They complied to her request."

An example of a teacher's expression connected with the property attending:
"To me it is important to notice talented children from an ethnic minority, who don't always get support at home, and so I really want to be on top of it."

Complimenting

The teacher approves of or appreciates a focal child by praising his acting and behavior. Child: "*Miss, we have finished the jigsaw puzzle already.*" Teacher: "*You are much too good in making puzzles!*"
The teacher is not only listening or looking at children (paying attention), but the remarks of the teacher are related to the (expected) quality of children's performances. The child

may ask for the teacher's approval, or the teacher praises the child at her own initiative. For instance, the child may hand over the teacher a paper on which the child has been doing sums at her own initiative. The teacher may look at the piece of paper and respond with: "*Very good! You are a clever girl!"* The child nods and hops back to her table.

An example of a teacher's expression connected with the property complimenting:
"I like to get children on the right track for instance by saying: 'Oh, you are really good at it…' [Sometimes it works for those children who are showing off.]"

Correcting
The teacher reprimands the child and argues why, by pointing at the undesired consequences of the child's behavior. For instance, a child is leaning over to the teacher to look in her picture book. Teacher: "*X, sit straight, for Y can't see anything.*" The teacher may intend to keep order and keep to certain rules in and outside the classroom (see also: category 2: school and/or class organization) and punishes children when they are trespassing the rules. For instance, the focal child is running ahead to the door of the playroom. Teacher: "*You go and sit on the bench, if you can't keep the line.*" The teacher may adjust the child's behavior: "d*on't be so curious!*", caution children when they do not live up to the teacher's expectations: *"no, first finish the leaves"* or *"that is not how you were supposed to cut the paper. Go and fetch the adhesive tape.*" The teacher's intervention may also be directed to dangerous behavior or activities, telling children to stop the activities for safety reasons. The child's undesired behavior may be adjusted by the teacher, or the opposite: desired behavior may be named, showed, or indicated.

Examples of a teacher's expression connected with the property correcting:
"You have to be specific and rules and punishment are allowed. Not bad, just sit aside for a while, very clear."
"I have also a role as a controller, and yes, a police officer as well."

Passing on
The teacher passes on values, conventions, and views about decent behavior, implicitly or explicitly, to the focal child. Values which are considered important by the teacher herself, as well as considered as a school task. Teacher: "*You said, you have hit X, because he hit you?*" The focal child: "*No, I thought X hit me.*" Teacher: "*Then you'll have to say sorry.*" Child: "*Sorry.*"

Passing on is also the case when the teacher asks the child to tidy up some materials when it is time to tidy up, which the child did not, or to hang the tea towel on its hook near the sink, as it was laying on the floor, probably left there by another child. And in a pedagogical way, the teacher may request to the focal child: "*Could you assist X with his very difficult jigsaw puzzle?*" In this sense the teacher is also complimenting the focal child implicitly, because she is referring to the focal child as capable of making difficult jigsaw puzzles.

An example of a possible parent's expression connected with the property passing on:

"Safety is very important. Children have to feel safe at school. As a child you spend a great deal of the day in school and so you'll have to feel safe."

Examples of a teacher's expression connected with the property passing on:

"I am afraid children become aware of the importance of completing tests. Tests aren't important. People are important."

"Confidence in themselves. That is what I like to offer the children."

Care taking

De teacher is looking after the children, taking care of the physical and mental well-being of the children. For instance by taking care that the children do not catch a cold, take their rest, and other needs. Teacher: "*X, it is time for your medicine!*" Child: "*No… o, yes!*"

The child can also ask for the teacher to act to his needs, as the focal child sniffs and says: "*Miss, I don't have a handkerchief.*"

An example of a parent's expression connected with the property care taking:

"Now X is having ear problems again, I am worrying about his hearing [This might influence his vocabulary development, when the teacher doesn't pay enough attention]."

An example of a teacher's expression connected with the property care taking:

"I have the role of a first aid assistant, and a role as a mother, as a comforter."

Subcategory 09: The teacher as cultural mediator

It is the teacher's task to educate children about societal, cultural, and social issues from the past and the present, suitable to children's social environment and their perception of the social environment.

Properties:

Conveying

The teacher shares information about cultural, societal and social issues. Conveying refers to actual information, without discussing it. Teacher: "*Today it is Halloween. Who knows what Halloween is about?*" Focal child: "*I do!*"

Examples of a parent's expression connected with the property conveying:

"[A few days ago, X is holding his hands like this – covering his eyes], I asked him what he was doing. He told me that miss X had explained you could talk with dead people in this manner."

"[They organize a lot at school] They take the children to the theatre; they organize a poems competition."

An example of a teacher's expression connected with the property exchanging:

"School is about initiating children in what is expected in this society too."

Exchanging

The teacher, or a child, starts a conversation with children about cultural, societal, and social issues. Information that is brought in by the teacher and the children is discussed and argued. Philosophical questions could be asked. Teacher: "*Why is a chair called a chair?*" Implicitly or explicitly, aspects of philosophies of life may be expressed as well.