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Evaluation of a Fairytale-Based
Pretend-Play Intervention to
Foster Socioemotional Competences in
Preschool Children

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Evaluation of a Fairytale-Based Pretend-Play Intervention to Foster Socioemotional Competences in Preschool Children

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Summary

Socioemotional competences are central for human development. Specifically, in the first six years of their lives children make great progress in their emotional development, which enables them to react emotionally competent in social situations, building their socioemotional competences. A central ability of socioemotional competences that also starts to develop in preschool age is the independent use of volitional emotion regulation strategies. Volitional emotion regulation requires children to be aware of their inner feelings, reflect on their emotions, which enables reflective emotion regulation. A lack of emotion regulation abilities and socioemotional competences in general can have negative consequences across ontogenesis. One way to foster socioemotional competences and at the same time promote emotion awareness is the elaborate pretend-play with peers.

The present dissertation addresses the child-appropriateness of pretend-play and the need for a preventative intervention approach that would promote socioemotional competences in preschool children. Accordingly, this dissertation presents the development and conceptualization of a unique fairytale-based pretend-play intervention. The pretend-role-play of fairytales provides children with the opportunity to explore emotional episodes within an as-if mode, which enables them to reflect on their real current emotion and the play-emotion, because the re-enactment of emotion episodes challenges children to regulate their currently triggered emotion, in order to play out the intended plot and the play-emotion.

The conceptualized intervention program presented in this dissertation was evaluated in three steps. First we conducted a Pilot Study to formatively evaluate the conductibility of the intervention approach. Second, we realized a quasi-experimental pre-post control group design to test the efficacy of the intervention in Study 1. Third, we applied an experimental pre-post-follow-up-control group design, with a treated and an untreated control group in Study 2, to investigate the effect of play and long-term effects of the intervention.

The Pilot Study showed that the conceptualized intervention was realizable by trained Play Leaders as intended and well accepted by participating children, hence a promising approach, but certain adaptations and improvements were necessary to ensure standardized implementation and to make the intervention more child-appropriate.

In Study 1 those adaptations were made and evaluation results revealed that the improved pretend-play intervention significantly increased the level of teacher rated socioemotional competences and children's general pretend-role-play abilities. However, the videotaped play sessions and experiences of the Play Leaders revealed that certain adaptations of the program were still necessary.

II

In Study 2 the optimized intervention was evaluated, but results did not show an improvement of teacher rated socioemotional competences or the general role-play ability, as it was found in Study 1. However, Study 2 revealed that the pretend-play intervention fostered children cognitive role-play abilities, with increasing effects towards follow-up-test. Also, results from Study 2 showed that participation in the pretend-play intervention increased emotion knowledge, specifically the understanding of social situations, with stable effects at follow-up-test.

In sum, all three studies together demonstrated that pretend-play training enhances different aspects of socioemotional competences, which has implications for the understanding of how these skills develop and provides support for the conclusion that at least one means by which children learn these important socioemotional skills is through pretend-play. In conclusion, the present dissertation introduces an innovative and unique pretend-play intervention as a promising approach emphasizing the intentional development of pretend-play competences as a prerequisite for the development of socioemotional competences and demonstrates that play has a fundamental place in early childhood education.

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List of Abbreviations

APS-P	Affect-in-Play-Scale – Preschool Version
CG	Control Group
DDP	Dialogical Drama with Puppets
EPT	Emotional-Perspective-Taking
IG	Intervention Group
KEEI	Knowledge of Emotional Expression Indicators
LRRH	Little Red Riding Hood
NCG	No-Treatment Control Group
PL	Play Leader
RE	Recognizing Emotions
SEC	Socioemotional Competence
SES	Socio-Economic Status
TCG	Treated Control Group
ToM	Theory of Mind
TOPS	Tools of the Play Scale
USS	Understanding of Social Situations
ZPD	Zone of Proximal Development

1 Introduction

"Man only plays when he is in the fullest sense of the word a human being, and he is only fully a human being when he plays."

(Friedrich Schiller, 1967, p.107).

The development of socioemotional competence presents an essential developmental task for children at preschool age (Holodynski, Seeger, Kortas-Hartmann, & Wörmann, 2013). The term socioemotional competence already entails the definition, because every emotional experience is developmentally embedded in social experiences, therefore the development of emotional and social competences are reciprocally influential (Saarni, 1999). Socioemotional competences are highly relevant for the development of children, they predict and are associated with resilience (Saarni, 2000), general mental health, and academic performance, they are predictive of social and workplace success (Denham, 2006; Seifert, 2014; Tremblay, 2000). Children who lack socioemotional competence have a higher risk for mental and behavioral problems (Cytryn, McKnew, Zahn-Waxler, & Gershon, 1986; Spence, 2003; Zahn-Waxler, Iannotti, Cummings, & Denham, 1990). But how can the development of socioemotional competences be fostered early on and in a child-oriented fashion?

An abundance of studies have addressed this topic and many programs have been developed and implemented in preschools that aim to foster socioemotional competences, such as *Lubo aus dem All*, *Faustlos*, or *Papilio*, to only name a few (see chap. 2.4.1). Many of these programs are effective, but they mostly neglect the appropriateness for children, because they apply instructional methods, cognitive learning strategies, and behavioral conditioning that were formerly reserved for school settings. These school-like conditions in preschools have caused concerns in parents and authorities, who now make a case for the importance of play (Hauser, 2013). Not only do preschool children need time to play for entertainment, but play serves a crucial purpose in the acquisition of socioemotional and emotion regulation competences in young children. Emotion regulation, in turn, is a crucial aspect of socioemotional competences (Halberstadt, Denham, & Dunsmore, 2001), at the same time socioemotional competences have been linked to children's pretend-play levels and is essential in children's acquisition of self- and emotion regulation (Berk, Mann, & Ogan, 2006; Bodrova & Leong, 2010; Howes & Matheson, 1992). Pretend-play can support the development of self-regulation, because it continuously creates situations in which children need to volitionally

regulate their immediate impulses and emotion urges in order to follow the rules of the play. For volitional emotion regulation, the child has to create a psychological distance from the immediate impulse of the emotion and interpret it as a classifiable emotion, by matching external expression signs to inner sensations. Pretend-play can function as a “school” of psychological distancing, because children gradually learn to interpret current situations within a completely different frame of reference, thus enabling them to distance themselves from the immediate impulse and the stimulus for acting on the impulse (Holodynski, Seeger et al., 2013).

Hence, play is a promising and child-oriented approach for fostering socioemotional competences and emotion regulation, but the positive impact of certain play styles, specifically pretend-role-play, on emotion regulation abilities has mostly been examined in correlational studies (Elias & Berk, 2002; de Lorimier, Doyle, & Tessier, 1995). Pretend-play always has a ‘pretense’ or an ‘as-if’ aspect to it (Lillard et al., 2013), and develops in preschool age from simple imitative acts into more elaborate play (Berk et al., 2006; Singer & Singer, 1990).

Therefore, the main objective of this dissertation is the conceptualization and evaluation of an innovative play-based intervention program for preschool settings, where children are trained in the pretend-role-play of fairytales. Fairytales address existential themes and fundamental conflicts that are relevant to children’s conflicts, problems, fears, and desires, but at the same time providing solutions (Bettelheim, 2015). We hypothesize that a child-oriented training of pretend-play competences could lead to growth in both play competences and emotion regulation, which in turn enhances children’s socioemotional competences. Therefore, after a theoretic introduction of the relevant constructs (chap. 2), the conception of a fairytale-based pretend-play intervention is introduced (chap. 3). Following this, a framework for the scientific testing of the efficacy of our intervention approach is proposed (chap. 4) and realized in three consecutive studies. The conceptualized intervention approach was formatively evaluated in the Pilot Study (chap. 5) and identified weaknesses revised. The efficacy of the revised pretend-play intervention was then evaluated in a pre-post-control-group design in Study 1 (chap. 6) and the results used for a final revision of the intervention program. This optimized intervention was subsequently evaluated in a pre-post-follow-up-control-group design Study 2 (chap. 7), where a treated control group was also realized.

This dissertation closes with an outlook (chap. 8), where suggestions are made for further improvements of the intervention program and hands-on instructions provided for how to impart the intervention to preschool teachers, who are intended to eventually conduct the program.

2 Theoretical Background

The aim of this dissertation project was to construct and evaluate a fairytale-based pretend-play intervention for preschool children to promote socioemotional competences. Social and emotional competences are closely related and the central link between the two is emotion regulation (Denham et al., 2003). Therefore, socioemotional competence, emotions, and emotion regulation will be explained in more detail at the beginning of this chapter, since only with that understanding the efficacy of pretend-play as a means to foster these competences can be comprehensible. The chapter concludes with a presentation and discussion of three different approaches for fostering socioemotional competences in preschool settings.

2.1 Socioemotional Competence

Socioemotional competence is widely acknowledged by researchers to be central for human development and growth (Malti & Noam, 2016). Specifically, in the first six years of their lives children make great progress in their emotional development, which enables them to react emotionally competent in social situations, building their socioemotional competences (Petermann & Wiedebusch, 2016). The development of socioemotional competences is an important developmental step in preschool, because it helps children interact and form relationships, helps support children's mental and physical health and helps protect against psychopathology and risk across ontogenesis (Denham et al., 2001; Garner, 2010; Malti & Noam, 2016). Problems regarding socioemotional competences and mental health are prevalent in children all over the globe, problems such as anxiety, depression, attention problems, and aggressive behavior disorders (Malti & Noam, 2008), all of which can negatively affect academic motivation and functioning (Masten et al., 2005; Oberle, Schonert-Reichl, Hertzman, & Zumbo, 2014).

2.1.1 Definition of Socioemotional Competence

The term socioemotional competence combines two inextricably linked constructs, *emotional* and *social* competence. Since every emotional experience is developmentally embedded in social experience (or the lack thereof) their development is inseparable and the two are reciprocally influential (Saarni, 1999). Both constructs present essential developmental tasks for children at preschool age (Holodynski, Seeger, et al., 2013), which is why they will at first be discussed separately, before the significance of the whole construct is laid out.

Emotional competence is the ability to feel effective at mastering emotions in different social situations (Saarni, Campos, Camras, & Witherington, 2006). In more detail, aspects of

emotional competence are the awareness of emotions in oneself and the ability to mimically or verbally express them, recognizing and interpreting emotions in others, and the ability to regulate emotions in social interactions (Petermann & Wiedebusch, 2016; Saarni et al., 2006). In other words, emotional competence is emerging from an emotion-eliciting social interaction with the feeling of having accomplished what we set out to do (Saarni, 1999). Emotional competence can be segmented into eight key components, of all of which develop over the course of ontogenesis and are shaped by familial and cultural influences (Koglin & Petermann, 2013; Saarni, 1999):

- (1) *Awareness of one's own emotional state*, including the possibility of experiencing multiple emotions at once that are dissenting each other. Saarni (1999) describes this ability as the most elementary, since it requires an awareness of self.
- (2) *Ability to recognize others' emotions*, based on expressive cues. This includes the ability to detect and interpret emotions in others, an understanding of common situational emotion-eliciting causes, and a certain Theory of Mind (ToM), e.g., the knowledge that other people have their own inner states.
- (3) *Ability to use culture-specific vocabulary of emotion*, including the use of emotion and expression language, the sharing and communication of own emotions and the acquisition of emotional scripts, i.e. learning a range of conclusions how certain situations should go off.
- (4) *Ability to be empathic*, the potential for empathic and sympathetic participation in others' emotional experiences. For Saarni (1999) this skill is the most important one for social interactions, since it is empathy that connects us with other people.
- (5) *Realization that inner emotional states and outer expression does not always correspond* (in self and others). In addition, this skill includes the ability to manage one's impression, and the knowledge that one must not show every emotion in any given situation.
- (6) *Capacity for adaptive coping with aversive emotions*, by using self-regulatory emotion regulation strategies, such as regulating actions, thoughts and feelings socially and physically, and regulating subjective perception and expression of emotion.
- (7) *Awareness that relationships are largely defined by emotional communication, emotional immediacy, and reciprocity*, i.e. emotion-related communication can define and form relationships with others, presupposing the knowledge that verbal and non-verbal communication of emotions has interpersonal consequences and the

ability to adjust the emotional communication according to the respective relationships.

- (8) *Capacity for emotional self-efficacy*, i.e. the individual accepts his or her emotional experience and feels in control of them. This skill is accompanied by high self-esteem and enables to live thru strong aversive emotions without being overwhelmed. This skill is the foundation of competent self-regulation in emotion-eliciting social encounters and therefore influences the successful realization of emotional competence.

These eight components of emotional competence dynamically interact and are reciprocally influential, but they do not develop all at the same time. For example, some components can develop at preschool age, such as increasing emotion knowledge and emotional perspective taking, while others are not even detectable yet, for instance emotional self-efficacy (Petermann & Wiedebusch, 2016). Especially the ‘Capacity for adaptive coping with aversive emotions’ is a central ability that starts to develop in preschool age, children start to use self-regulatory emotion regulation strategies for the first time and learn to regulate their actions and emotions.

Emotional competence influences various developmental outcomes: It is closely associated with positive peer relationships, since emotional competent children can effectively regulate their emotions and control their emotional responses in social interactions, they can identify emotions in others, while responding more effectively. Moreover, emotional competence is associated with academic success, through emotion regulation and social competence (Elias & Haynes, 2008; Ladd, 2003; Saarni, 1999; Saarni et al., 2006), demonstrating the interconnectedness of the two constructs.

Social competence, on a very general level, is the skill in negotiating social relationships, i.e. reaching individual goals in social interactions, without infringing culture-specific rights and norms (Jerusalem & Klein-Heßling, 2002). In more detail, social competence includes a variety of social skills, all requiring the cognitive ability to differentiate oneself from others, enabling role- and perspective-taking, both of which are prerequisites for empathy as the key facilitator for prosocial behavior, such as comforting or befriending someone (Rubin & Rose-Krasnor, 1992). Further aspects of social competence are reacting adequately to criticism, apologizing, or admitting to weaknesses in social interactions (Hinsch & Pfingsten, 2002). In sum, social competence encompasses at least the following five aspects, as proposed by Eisenberg and Harris (1984): (1) perspective taking, (2) conceptions of friendship, (3) interpersonal strategies, and problem solving, (4) moral judgment, (5) communication skills.

Moreover, social competence also influences various developmental outcomes: Socially competent children exhibit more positive school behaviors and fewer diagnosis of psychopathology than children with deficits in social competence (Galejs & Stockdale, 1982; Spence, 2003). Deficits in social competence increase vulnerability for social phobia, schizophrenia, and numerous other behavioral disorders (Ingram & Price, 2001).

Socioemotional competence is constituted by emotional and social competence, with emotional competences facilitating the development of appropriate social behavior (Denham et al., 2001; Halberstadt et al., 2001; Saarni, 1999). This close connection between the two constructs is addressed in Halberstadt and colleagues (2001) structured and hierarchical concept of *affective social competence*. According to this concept affective social competence is comprised of three basic components: sending affective messages, receiving affective messages, and experiencing affect. Central and interconnected abilities within each of these components include (a) awareness and (b) identification of emotions, (c) working within a complex and constantly changing social context (ability to recognize and interpret others' emotions) and (d) management and regulation of emotions, all of which are progressive and essential to successful social interactions. These four abilities develop in sequence as children mature and gain more experience with their own emotionality and social encounters (Halberstadt et al., 2001). Each ability is hierarchically linked within each component. At first, children gain awareness, i.e. they learn to "send" emotions to others in social interactions, to "receive" emotions from others and only then are they able to identify, understand and subsequently regulate their own emotions (Koglin & Petermann, 2013). Additionally, the model shows how affective social competence is shaped and influenced by, for example, familial, cultural, and interpersonal influences.

This model of affective social competence has been criticized in regard to neglecting both emotion regulation and cognitive representations of emotions and further the unspecific wording and explanation of contextual influences has been censured (Petermann & Wiedebusch, 2016). Nevertheless, the concept of affective social competence demonstrated in Halberstadt and colleagues' (2001) model establishes the reciprocity between social and emotional competence, identifies leverage points for intervention programs and shows what groundwork must be laid first to enable a stable developmental sequence (Koglin & Petermann, 2013). The model also demonstrates the key role of *awareness* as a fundamental ability for social and emotional competence, successful social interactions, and the development of emotion regulation. Only the ability to regulate emotions volitionally enables the effective and flexible organization of social interactions (Halberstadt et al., 2001), making emotion regulation

an important part of social competence. In summary, socioemotional competence entails all abilities concerning the perception, expression, appraisal, and regulation of emotions, always in relation to social interactions (Koglin & Petermann, 2006). Positive correlations between emotional competences and higher social competence have been found in numerous studies (for an overview see Petermann & Wiedebusch, 2016). Therefore, in the following both competences will be addressed and named as one construct: *Socioemotional competence*.

The crucial nature of socioemotional functioning for development is confirmed in numerous studies. Socioemotional functioning predicts and is associated with adaptive resilience in stressful circumstances (Saarni, 2000), mental health, classroom learning, and academic performance, it promotes positive peer-relationships and is decisive for social and workplace success (Denham, 2006; Seifert, 2014; Tremblay, 2000). Children who lack socioemotional competence have a higher risk for delinquency, substance abuse (ibid.), psychopathology, and multiple other behavior problems (Cytryn et al., 1986; Spence, 2003; Zahn-Waxler et al., 1990). Furthermore, Denham, Bassett, Thayer, Mincic, Sirotkin, and Zinsser (2012) revealed that differentiated knowledge of emotion determined well-marked prosocial behavior. The latter is an important aspect of the transition from kindergarten to school, the success or failure at this transition often sets children on a cycle of success or failure in social and academic domains (Ryan, Fauth, & Brooks-Gunn, 2006). In summary, these studies substantiate the importance of addressing socioemotional competences at an early stage, as to prevent children from entering a cycle of failure and help them succeed in life. One way of helping children become well adapted individuals is by teaching them about emotions and fostering emotion regulation.

2.2 Emotion and Emotion Regulation

An important aspect of socioemotional competence is the ability to recognize and regulate emotions in oneself and in others (Halberstadt et al., 2001), which is a central ability that starts to develop in preschool age and was defined by Saarni (1999) as the *Capacity for adaptive coping with aversive emotions* (chap. 2.1.1). What an emotion is, how to recognize it, which aspects influence emotion regulation and which prerequisites apply will be presented in the following.

2.2.1 A Functional Model of Emotions

Emotions are a fundamental phenomenon of human behavior and at the core of emotional competence. In layman's terms emotions are often referred to as 'feelings'. 'Feeling' is a vague term, whilst an indication of the complexity of the construct, though insufficient from a

scientific perspective (Damasio, 2004; Traue, Horn, & Kessler, 2005; Siegler, DeLoche, & Eisenberg, 2005). However, even in science there is neither a uniform theory, nor an interdisciplinary accepted definition of emotions, but several partly overlapping emotion theories (Brandstätter & Otto, 2009; Traue et al., 2005). These emotion theories share the understanding that emotions have a formal aspect, by which they can be identified and a functional aspect, which psychological function the emotion serves in the activity of a person (Holodynski, 2006). They also agree on four essential components of an emotion: Physical changes, such as heartrate, breathing, skin resistance, and hormones; subjective sensations or feelings; related cognitions; and the urge to act and change something, which is shown in the expression and action readiness (Ekman, 1984; Frijda, 1986; Holodynski, 2006; Izard & Malatesta, 1987).

In relation to these four components, emotions are described by Holodynski, Hermann, and Kromm (2013) as an action readiness that is triggered by the appraisal of a situation regarding its relevance for personal motives. Emotions are reactions, aiming to either establish, maintain or change the relation between the individual and the surrounding. They evolved to deal with fundamental life tasks (Ekman, 1984; Saarni et al., 2006). In order for an emotion to fulfill that task, four components have to dynamically interact. These components are the appraisal of the cause, the physical body reaction, the facial and bodily expression, and the directional sensation (Holodynski, 2006). These four components together form an emotion. In preschool children emotions are mostly still non-reflective, which are “emotions of which there is no explicit awareness” (Lambie, 2009, p. 274). One development task in preschool is starting the transition from non-reflective to reflective emotions. Reflective emotions are emotions of which the subject is explicitly aware (*ibid.*), which enables the volitional regulation of emotions. In case of non-reflective emotions, where no volitional regulation takes place yet, the emotion episode proceeds in a fixed sequence.

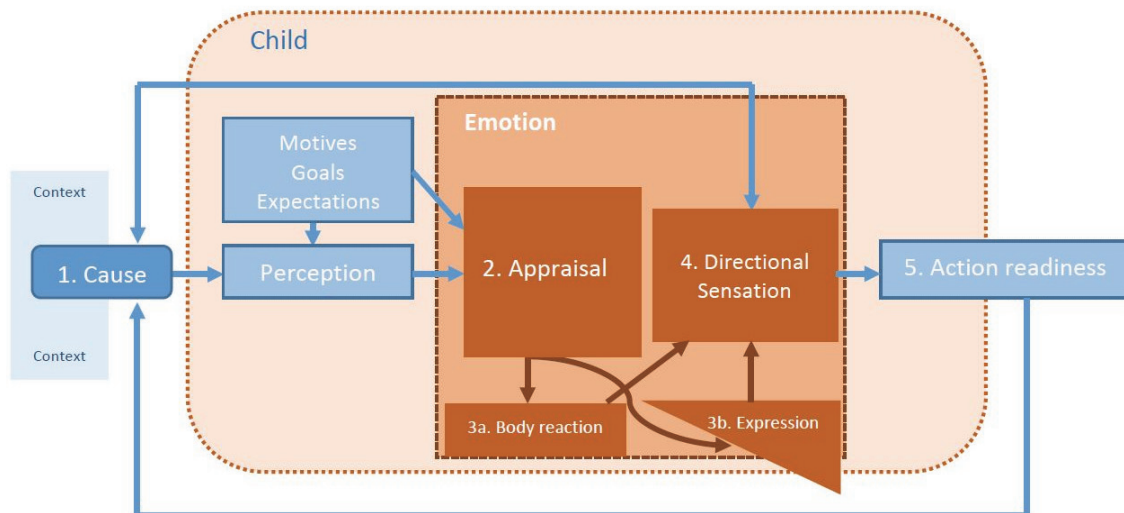


Figure 1. Course of a non-reflective emotion episode of a child (Holodynski, 2006; Lambie, 2009).

As seen in Figure 1, within this framework, the course of a non-reflective emotion episode starts with (1) the perception of a cause (as a preceding condition) that is somehow relevant for individual motives. The relation between cause and motive is being (2) appraised, it is estimated whether the cause is “good or bad” and the notion of appraisal is closely linked to motivational concepts such as that of concern, goal or motive. Appraisal processes are presumably unconscious and reflexive and can be conceived of as a series of automatic evaluations (Mesquita, Frijda, & Scherer, 1997).

This appraisal triggers adaptive (3a) body reactions, which are elicited by processes of the autonomic nervous system and by endocrinologic processes, e.g., increased heartbeat, breathing, sweating), with the underlying hypothesis that different emotions are universally accompanied by specific and unique patterns of physiological responses. At the same time, the appraisal can be displayed as a perceivable (3b) expression (e.g., smiling, erected body, raised eyebrows, foot-stomping, arms crossed over chest). These emotional expressions involve multiple signals, including the voice as well as the face (Ekman, 1984).

Both the body reaction and the expression are subjectively sensible through body feedback as (4) an inner sensation experienced as triggered by the cause of the emotion episode. This inner sensation is what is experienced as a ‘feeling’ (Holodynski, 2006; Holodynski, 2009b). This subjective inner sensation of an emotion is fed by various sources, e. g. the feedback of afferent information from mimic muscles, what the child feels is the emotion as a (facial) feedback sensation, i.e. the interoception of physiological reactions and the proprioceptive reactions of muscle activity (Holodynski, 2006; Traue et al., 2005). The inner sensation is directional, because it elicits an (5) action readiness to change the situation in a way that serves the individual motive, an increase or decrease in the general state of activation, or

the emergence of particular action tendencies, which is best described in terms of the relational meaning, e.g., joy is a pleasant feeling with a strong convergence tendency towards people or objects, whereas fear is unpleasant and elicits avoidance behavior and the search for safeguard, other action tendencies could be rejection, withdrawal, help-seeking, etc. (Frijda, 1986; Holodynski, 2006; Mesquita et al., 1997; Traue et al., 2005).

Furthermore, this model follows Damasio's theory of somatic markers, in contrast to the model of parallel processing by Rolls (as cited in Holodynski, 2006). According to Damasio's (2004) theory, inner sensations are caused by bodily reactions and expressions. The motive-related appraisal elicits an emotion-specific action readiness in the motoric and body-regulative subsystem, which serves as input for the emotion system in form of an internal feedback-loop.

However, this experienced inner sensation is not yet accompanied by an awareness of the emotion, making it non-reflective. In a non-reflective emotion episode the child experiences his or her autonomous body processes through interoceptive sensations (also called body sensations) and - and he or she experiences the action-readiness through proprioceptive sensations (also called expression sensations), together with the cause-directedness they are regarded as necessary emotion-indicators, but the child is not aware of it as an emotion (Holodynski, 2006; Lambie, 2009). "Nonreflective emotions influence action, but they play no rational role in action selection. At best they are nonrational, and frequently they are irrational with regard to action selection." (Lambie, 2009, p. 275). This describes how in early emotion development each sensation directs to an emotion-driven action readiness or emotion urge, which is impulsively executed right away. The execution of the emotional action readiness is the function of the complex emotion system and serves as a motive-oriented action regulation (Lazarus, 1991). Emotions as such, or the behaviors triggered by emotions, affect the environment, therefore changing the situation by which the emotions were elicited in the first place, in other words, emotions represent transactions with the environment (*ibid.*; Mesquita et al., 1997).

The importance of emotions for the developing child is emphasized by Denham and colleagues (2001). They state that experiencing and expressing emotions signal whether the child or other people need to modify their goal-directed behavior and therefore, emotions can shape the child's behavior. As mentioned before, emotions involve action urges, for instance joy as a pleasant feeling involves an urge to converge, whereas fear as an aversive feeling can involve an urge to escape, or anger could elicit an attack (Lambie, 2009). Denham et al. (2001) provide the example of a preschool boy experiencing happiness while playing blocks with another child. This emotional experience of happiness would lead to increased contact between

the two, because it is a desirable state they intend to experience again, so their behavior might be influenced insofar as they might ask for play-dates outside of kindergarten. This example shows how the emotional experience of happiness provides the boy with important information and affects his subsequent behavior. Denham and colleagues (2001) underline the importance of emotions even further, in stating how emotions provide social information to other people and affect their behaviors, how peers benefit from observing emotional expressions of their friends and how the expression and regulation of emotions is important interpersonally as well as intrapersonally. Hence, emotions affect all aspects of our lives and if we want to influence the way emotions affect our behavior and our relationships with other people, we must learn how to regulate them, instead of remaining in a non-reflective emotional state.

2.2.2 Reflective Emotion Regulation

The emotion model shown in Figure 2 displays the course of a non-reflective emotion of a child that is not aware of the emotion, where no volitional regulation can take place yet. However, in order to be an accepted member of society, one needs to be able to regulate emotions volitionally on a daily basis and act rationally, as not to be succumbed to every occurring emotional urge and respective impulse/action readiness. There are plenty of social situations requiring the regulation of emotions and expression, where achieving personal goals is connected with emotional conflicts. Three situations, in which a person needs the capacity of a reflective emotion regulation are presented by Holodynski, Hermann, and Kromm (2013): (1) delay of motive satisfaction, for instance a child sitting at lunch, seeing the cookie, and having to wait until everyone has finished lunch, before eating the cookie. (2) Adaption to cultural display rules for expressing emotions, an example would be a child receiving itchy wool socks from the grandmother for Christmas and showing happiness and gratitude, despite the felt sadness and disappointment, as to be polite and not upset her. (3) Conflicts of motives can occur intrapersonally and interpersonally, an intrapersonal conflict of motive could be a child who wants to join two other children playing house, but they only offer the undesired role of the baby, when pursuing his or her motive the child has to accept that unpreferred role; an interpersonal conflict of motive occurs when the teacher asks the child to clean up the blocks, but the child is still very engaged in his or her play, hence teacher and child have conflicting ideas.

Positive developments in reflective emotion regulation can be observed in preschool aged children, they go from frustration, anger and tantrum behavior, to monitoring and inhibiting behavior, expressing emotions verbally and using language and emotional expression to persuade others to satisfy their motives (Bretherton, Fritz, Zahn-Waxler, & Ridgeway, 1986;

Kuczynski & Kochanska, 1990; LaFreniere, 2013). The ability to regulate emotions volitionally is a milestone in the development of socioemotional competence (Denham, 2006), it refers to all processes of monitoring and controlling emotional states and the expression of these states in an attempt to adapt to social situations and demands (LaFreniere, 2013). In order to regulate emotions, an emotion's action readiness, expression, and/or bodily reactions, one must become aware of the felt action readiness and distance oneself from the urge of acting, instead of surrendering to it, and interpret it as an indicator of a classifiable emotion.

This classification requires for the language system to process all emotions of the cognitive-affective emotion system that require the consideration of norms, attitudes, appraisals, and anticipations (Traue et al., 2005). Such a categorical classification (4b. in Figure 2) of an elicited sensation means becoming aware of the current emotion, shifting "to the level of categorical awareness" (Lambie, 2009, p. 274), which means "knowing how to recognize anger, fear, jealousy, and so forth, in oneself" (ibid., p. 274). This categorization of the sensation as an emotion means the subject is aware of the emotion, making it a *reflective* emotion. Awareness of emotion is an "attentional state that enables report of one's emotion, when in an emotion state" (ibid., p. 274), hence enabling the subject to judge whether the emotion is motive-appropriate in the long run. If it is, the elicited action readiness has to be modified so that it serves the individual motive in the long run, meaning that it has to be replaced by a subdominant more appropriate action. Initiating a subdominant reaction requires that the emotion is being modified in terms of its quality, intensity, and course. Such a modification requires reflective emotion awareness and is only possible thru a reflective emotion regulation (Holodynski, Hermann, et al., 2013; Thompson, 1994).

Reflective emotion regulation requires for the emotional action tendency to be under inhibitory control, which allows for a rational action selection (Lambie, 2009), modifying the course of the emotion. This modification of an emotion can address different aspects of an emotion episode (indicated by red arrows in Figure 2). The situation in which (1) the cause appeared could be changed, meaning that the circumstances of the situation are changed in such a way that no emotion episode is elicited. Also, (2) the appraisal could be reevaluated and a new perspective on the cause be generated, the emotion is regulated through components of information processing, for instance by altering interpretations, construal of information, or by reinterpreting the internal indicators of the emotional arousal, which in turn alters the body reaction (e.g., slowing down the increased heart rate). When emotion regulation addresses the appraisal, what is regulated is the interpretation of emotionally meaningful information or internal indicators. Another starting-point for reflective emotion regulation is (3b) the

expression. The expression could be masked, an adaptive response alternative chosen (emotional expressions can be convincingly simulated, though similarity of a simulated emotion to a felt emotion makes it easier to simulate) or the intensity varied.

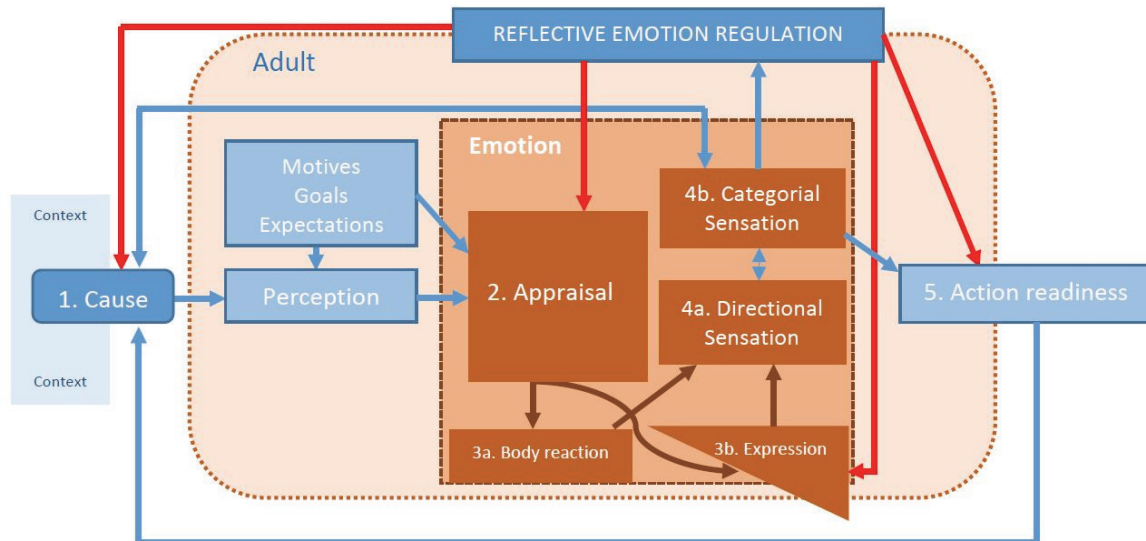


Figure 2. Sequence of a reflective emotion and reflective emotion regulation as exhibited by adults (based on Holodynski, 2006; Lambie, 2009).

When emotion regulation addresses the expression, what is regulated is the activity of facial muscles, pitch of voice, and/or body language, possibly going as far as concealing an emotion all together (Holodynski, Hermann, et al., 2013; Ekman, 1984). However, Ekman (1984) hypothesized that it is harder to inhibit some modes of expression than others, according to him signs of emotions in the voice are harder to inhibit than in facial expressions and it is harder to inhibit facial expressions than signs of an emotion in body movement. Finally, the reflective emotion regulation could target the dominant (5) action readiness, inhibit it through inhibitory control, and replace it by a more goal-appropriate one, what is regulated is the response tendency.

Competent emotion regulation can encompass any of these processes, taken individually or in combination. Reflective emotion regulation entails a moment of stepping back from the directional sensation, becoming aware of the sensation on a level of categorical awareness, classifying it, and contemplating, whether and how the outcome could be changed – hence the name, because it entails a moment of reflection (Holodynski, Hermann, et al., 2013; Thompson, 1994). Consequently, reflective emotion regulation allows individuals to take charge of the effects that emotions have on their lives, instead of being controlled by them. The development of reflective emotion regulation starts at preschool age, but takes a many developmental steps and requires children’s active effort (Holodynski, Hermann, et al., 2013).

Supporting that development in children is challenging, because only the expression component of an emotion is visible from the outside, but the subjective inner sensation is not accessible for an observer. The subjective perception of an undifferentiated sensual sensation is not a definable entity for children at first. Children need to learn that emotion vocabulary not only related to the facial expression, but also to the subjective inner sensation. Initially, young children do not understand how these bodily sensations are related to the expression of another person, or what expression they themselves show when feeling an emotion. This invisibility of inner sensations makes fostering emotional awareness (as a prerequisite for reflective emotion regulation) so difficult, because it requires teaching children to perceive subjective inner sensations and outer expression signs as facets of the same emotion episode and teach them the necessary emotion vocabulary.

The young child is not yet able to reflect upon the sensation and needs to gain conscious access to the subjective sensation, and learn the connection between sensation and expression. This is an important developmental task for children to match expression signs to inner sensations while experiencing an emotion episode, recognizing emotion expressions in others and themselves and expressing emotions verbally (Holodynski, in press). Taking this developmental step enables children to become aware of their emotions, ergo reflective emotions, express them via language, recognize emotions in others and regulate own emotions, by distancing themselves from their own emotional impulses. This distancing from the directional sensation towards a categorial sensation can be fostered by different means, which will be discussed further down (see chapter 3.4 *Gaining emotion awareness in the roleplay of fairytales* for more details).

The vast impact emotion regulation has on the developing child can be seen in many studies. It has implications far beyond childhood, concerns every human being and is an ability necessary for life in any social context. Numerous cross-sectional and longitudinal studies have provided evidence for a correlative connection between socioemotional competence and emotion regulation (Eisenberg, Fabes, Guthrie, & Reiser, 2000; Eisenberg et al., 2001; Lengua, 2002). Emotion regulation and observed positivity of emotion are associated with preschoolers' social effectiveness and popularity with peers (Blair, Denham, Kochanoff, & Whipple, 2004; Denham et al., 2003; Smith, 2001). Howse, Calkins, Anastopoulos, Keane, and Shelton (2003) found that preschoolers' emotion regulation predicted kindergarten achievement, even though this effect was mediated by the contribution of behavioral regulation. Further studies found that emotion regulation is especially crucial for children's academic and social success, because children who have problems in dealing with negative emotions have less individual resources

to focus on their classroom tasks, whereas those who can uphold a positive emotional tone can remain positively engaged with learning (Denhamn, Bassett, & Zinsser, 2012a).

Also, Head Start studies show that emotion regulation (including emotional flexibility, equanimity, situational appropriateness of emotional expression) evaluated early in the school year can predict facets of later school success (Denham et al., 2012b; Shields et al., 2001). Miller, Seifer, Stroud, Sheinkopf, and Dickstein (2006) found in their classroom observation study that emotional dysregulation was negatively related to teachers' ratings of children's motivation to learn. In conclusion, implications of emotion regulation far beyond childhood can be drawn from Murphy, Shepard, Eisenberg, and Fabes (2004), who showed that early emotion regulation is related to adolescent social skills, prosocial behavior, popularity, disruptive behavior, and aggression. Emotion regulation is therefore an important aspect of being a socioemotionally well-regulated human being (Halberstadt et al., 2001). Emotion regulation and other aspects of socioemotional competences start to develop in preschool age, but not every child is fortunate enough to learn all necessary skills at home, which could have immense consequences for those children's future lives. Therefore, interventions for fostering socioemotional competences in early childhood should be given more consideration.

2.3 Reasons for Fostering Socioemotional Competence

Socioemotional competences are at the core of human development (Malti & Noam, 2016), but current research gives reason for concern, because it shows that many school children already suffer from stress. Recent studies show that children who suffer from stress have more emotional problems and negative emotions such as anger, anxiety, nervousness, loneliness, aggression, and rage, and physical stress-symptoms, such as exhaustion, fatigue, and head- and stomach-aches (Seiffge-Krenke & Lohaus, 2007; Ziegler, 2015), hence less socioemotional competences. Related research shows that children's everyday lives have changed towards more media consumption, an increased pressure to perform and achieve, an increased weight of expectations, from both parents and institutions, which could be reasons for the elevated stress-levels in young children (Bertram, 2013; Seiffge-Krenke & Lohaus, 2007; Singer, Singer, A'Agostino, & DeLong, 2009).

The UNICEF-report on the state of children in Germany claims that in consequence of social structural changes the familial lifestyle has also changed. This change can be expressed in numbers; In 2009 19% of all families in Germany were raised by single parents (with the single parent often being full-time employed or unemployed), and two-parent households both parents are often full time employed, leaving children unattended (Bertram, 2013),

approximately 20% of all German children suffer from high stress, and 17.2-19.3% of children between 3 and 6 years are at increased risk of developing mental health problems (Hölling, Schlack, Petermann, Ravens-Sieberer, & Mauz, 2014; Ziegler, 2015). The prevalence of mental-, behavioral- and developmental problems in preschools was assessed by Tröster and Reineke (2007), they found that every fifth child showed problems in their emotional behavior or did not possess age-appropriate social competences, as rated by preschool teachers. They also found that the risk for behavioral and developmental problems is higher for boys than for girls, with boys exhibiting more external behavior problems and having higher deficits in their socio-emotional competences (ibid.).

A development that is potentially detrimental to children's coping with stress is the observed decline in play abilities. Researchers report a decline in play activities and regresses in the development of mature forms of play (Bodrova & Leong, 2003; 2007). A study of the role of play beyond school contexts in 16 nations (Singer et al., 2009), with data collection from the mothers with comparable socioeconomic status of 2400 children from Argentina, Brazil, China, France, India, Indonesia, Ireland, Morocco, Pakistan, Portugal, South Africa, Thailand, Turkey, the United Kingdom, the United States, and Vietnam, confirmed the decline in preschool children's imaginative play and the increase in media consumption, which often replaces play in all 16 nations. Singer et al. (2009) focused on children aged one to twelve and asked the participating mothers to recall their own childhood play experiences and contrast them with those of their children. One major finding of the study is that children's main free-time activity is watching television across all 16 nations.

Pretend and imaginative play normally peaks at the ages of 5 and 6, but nowadays children that age show the immature play of toddlers instead. These primitive play scenarios (with a limited spectrum of themes and roles) are even displayed by school children. The current decline in pretend-play can further be seen in children sticking to the same theme in play for months, instead of varying and exploring more complex scenarios. Additionally, the decline in pretend-play in preschools is worsened by the lack of urgently needed teacher-support in play, preventing children from progressing in play (Bodrova, 2008; Brèdikytè & Hakkarainen, 2011; Gudareva as cited by Bodrova et al., 2013; Singer et al., 2009). Further studies in preschool settings show that children nowadays display less self-regulation in play than previous generations have. One possibility is that the decline in self-regulation could be attributed to the decrease in both quantity and quality of play found in preschools and kindergartens nowadays (Gudareva as cited by Bodrova et al., 2013). This assumed connection between self-regulation and play-levels is supported by correlative findings (Berk et al., 2006).

Obviously, there are potential reasons for the alarming findings in current research. Scientists agree that one reason both for the decline in self-regulation and the decrease in pretend-play levels is that at home as well as in preschool, children's time is mostly structured by adults (Singer et al., 2009; Ziegler, 2015). This highly structured time leaves children with a lack of unstructured free time and self-determined quality time (Singer et al., 2009; Ziegler, 2015), leaving children other-directed most of the time. Additionally, Bodrova (2008) provides a potential reason; in the past play mostly existed in mixed aged groups, where younger children had the opportunity to learn from older, more competent peers, who in turn would pass on their play competence to the younger. Today, however, children spend most of their time in same-age groups, leaving them with play partners as inexperienced as themselves. As a result, many of the play skills that children in past times were able to learn by observing and imitating their older peers now have to be modeled and taught by the teachers. (Bodrova, 2008). This statement is supported by Brėdikytė (2011, p. 104)

...that the ability to play is not ingrained in our biological nature, but "learned" from the social environment (especially higher, developed forms). Traditionally, different forms of play were passed from generation to generation through participation in joint play activities of multi-aged children. Due to the rapid socio-economic and technological changes in developing societies, young children have fewer opportunities to participate in joint play activities in mixed age groups. As a consequence, there are fewer possibilities to learn play skills from each other.

Taken the current situation and the potential reasons together it becomes obvious that in preschool settings more attention should be directed to play and socioemotional competences and interventions implemented that compensate the deficits that children haven in these domains. The development of socioemotional competences is one of the central developmental tasks in preschool (Wiedebusch & Petermann, 2011) and is positively associated with pretend-play (Berk et al., 2006; Weisberg, Hirsh-Pasek, & Golinkoff, 2013b). However, in most of the educational plans of the federal states in Germany, the fostering of socioemotional competences is explicitly demanded (Fthenakis, 2007), but play is not explicitly taken into account. Despite the educational plans, for pedagogic professionals the question often remains, how to translate the political demands into everyday preschool practices (Wiedebusch & Petermann, 2011). Different possibilities for how to answer the demand exist; pedagogic professionals can choose from a wide range of structured, preventive, and universal support programs for fostering socioemotional competences in preschool settings. The ones used most often will be discussed in the following.

2.4 Three Approaches to Foster Socioemotional Competences in Preschool Settings

Preschool is an appropriate setting for fostering socioemotional competences, because central developmental steps of socioemotional competence occur at preschool age (Holodynski, Hermann, et al., 2013). Therefore, this chapter will address three different, child-appropriate approaches suitable to foster socioemotional competences in the preschool setting. At first instructional intervention programs will be discussed, then Emotion Coaching as a program applicable by both parents and p teachers (caregivers in general) will be introduced, and lastly pretend-play as a means to foster socioemotional competence will be presented.

2.4.1 Existing Programs for Preschool Settings

Only programs suitable for the preschool context will be presented in the following. For reasons of relevance *Lubo aus dem All*, *Faustlos*, *Papilio*, *Kindergarten plus*, and *Verhaltenstraining im Kindergarten* as well known and adequately evaluated programs in Germany (Bickenbach, 2013) will be discussed in more detail, then a brief overview of further programs will be given. When judging intervention programs the appropriateness of aims, methods, and materials, the practicability of implementation and the empirically proven efficacy of the program are of importance (Hermann & Holodynski, 2014), hence these aspects were taken into account when reviewing programs for the present chapter.

2.4.1.1 *Lubo aus dem All*

Lubo aus dem All (Hillenbrand, Hennemann, & Heckler-Schell, 2009) is a universal prevention program aiming to foster socioemotional competences in preschool children, with the help of “Lubo”, a little alien trying to make friends on earth. The program is best be implemented in a small group of 10-12 children, of which only half should exhibit behavioral problems. The materials of the program include a handbook, an audio CD with templates, and Lubo-songs, 30 laminated, colored pictures, two colored posters, and the hand puppet “Lubo”. *Lubo aus dem All* consist of 34 lessons and is organized in five units: (1) introduction of rituals and strengthening camaraderie – lessons 1-3, (2) expansion of attention and perception skills – lessons 4-9, (3) perception, recognition and comprehension of emotions in self and others and fostering emotion regulation lessons 10-20, (4) emotion regulation strategies for appropriate ways of dealing with emotions and emotionally challenging situations – lessons 21-25, and (5) behavior regulation for appropriate conduct in social situations – lessons 26-34. Each lesson takes approximately 40 minutes and it is recommended to carry out three lessons per week in the mornings from 9-10am, with one days in-between lessons. All lessons proceed in a

ritualized fashion, always starting with a predefined greeting and ending with a closing ritual. The main part of a lesson consists of active tasks and the practice of solution strategies, alternating with more mellow drawing-, cut-and-paste-activities, and conversations. There are four main activities, the “emotion-weather-forecast”, where children associate feelings with weather conditions, the “star-circle”, where desired behavior is reinforced by star-tokens, the “buddy-principal”, where more competent children function as behavior models and are matched with children that are at risk for socioemotional delays and the “problem-solving-cycle”, where cognitive strategies for solving conflicts and problems are being trained. These experience-oriented activities are supposed to facilitate resource-oriented learning, where children are motivated to engage in cognitive learning. Learning is being realized mostly through conversations about emotions, where teachers and children analyze the appropriateness of various emotions in different situations (Hillenbrand et al., 2009).

Lubo aus dem All was evaluated with 222 children, ages 4 to 6, from 15 kindergartens, using a pre-post-follow-up-control-group design (ibid.). For evaluation purposes Hillenbrand and colleagues (2009) questioned children and kindergarten teachers before, after and again 4-5 months after the intervention. As measures, they used the “Caregiver-Teacher-Report Form – German version” (C-TRF/ 1^{1/2}-5, Achenbach, 1997 and Arbeitsgruppe-Deutsche-Child-Behavior-Checklist, 2000) and the „Preschool Social Behavior Questionnaire“ (PSBQ, Tremblay, Vitaro, Gagnon, Piché, & Royer, 1992). Hillenbrand and colleagues (2009) found a significant decrease in behavioral problems in the treatment group, with a stronger effect for children at risk. Results further indicate a significant increase in socially acceptable behavior strategies in the child-interview at post- and follow-up time of measurement for the treatment group. However, it must be critically noted that the teachers conducting the child-interviews assessing the socioemotional competence-development were the same ones executing the intervention program (Hillenbrand et al., 2009), posing the risk of an experimenter-bias. Furthermore, experimenters were not blind to the condition and since socioemotional competence was not experimentally assessed it is questionable if children could only reproduce the strategies in question verbally or if they could actually apply them. Furthermore, actual effects of the program are yet to be proven, since no treated-control group was implemented so that positive effects of the intervention could be attributed to the stimulating effects of the extracurricular activity.

2.4.1.2 *Faustlos*

Faustlos (Cierpka, 2014) is a social-emotional learning curriculum, with the goal to prevent aggressive and impulsive behavior in children, while strengthening their social and

emotional competences (Schick & Cierpka, 2006). The program can be executed with the whole group/class. *Faustlos* was adapted from the American *Second Step*® violence-prevention program (Beland, 1988). There are three curricula for the German equivalent of *Second Step*®: (1) for early learning (*Faustlos*-Kindergarten), (2) for elementary school (*Faustlos*-Grundschule) and (3) for middle school (*Faustlos*-Sekundarstufe). The latter two will be neglected here, due to the age range that is irrelevant for this dissertation. All original materials for *Faustlos*-kindergarten were revised and adapted in a multi-level process before being implemented in Germany.

The materials include a handbook, a detailed instruction-manual for each lesson, 28 laminated, colored pictures, a CD with the pictorial material, and two hand puppets (Low, Cook, Smolkowski, & Buntain-Ricklefs, 2015). A one-day training is required before *Faustlos* can be purchased and implemented (Klinkhammer, 2013). *Faustlos*-kindergarten consists of a total of 28 lessons that are organized in three units: (1) Empathy - 12 lessons, (2) Impulse Control and Problem Solving - 10 lessons, and (3) Managing Emotions (anger and rage) - 6 lessons. Each lesson takes 20-40 minutes, one time per week. *Faustlos* is implemented as part of the normal kindergarten activity and lasts about 6 months to a year. The time in-between sessions is supposed to be used for transferring the learned behavior onto everyday-life-situations by using positive reinforcement, reminders, opportunities to participate, and active support from the teacher (Schick & Cierpka, 2006). All lessons proceed in a standardized fashion; after the warm-up game with the hand-puppets, the kindergarten teacher introduces a topic by showing and discussing a provided picture of a problem situation, following the standardized prescribed questions. After this cognitive introduction and verbal discussion of the problem situation the teacher demonstrates the desired model-behavior for solving the situation, followed by the children practicing this desired behavior in ‘role-play’ (Schick & Cierpka, 2006). It is called role-play, but the manual explicitly says that it is only used for children practicing the socially competent behavior that the teacher demonstrated, therefore it is no play at all.

Evaluation studies were first conducted for *Second Step*® (Beland, 1988), with results indicating that participation in the program increased empathy. The first German version of *Faustlos*-Kindergarten was evaluated by Hahlweg, Hoyer, Naumann, and Ruschke (1998), finding an increase in social competences. The most recent version of *Faustlos*-Kindergarten was evaluated with 124 children, ages 4 to 6, from 14 kindergartens, using a pre-post-control-group design (Schick & Cierpka, 2006). Amongst other measures, the teacher and parent version of the “Strength and Difficulties Questionnaire – German version” (SDQ-deu, Goodman, 1997) was conducted.

Findings reveal an increase in socio-cognitive competences from the children's perspective, but no effects from neither the parents, nor the teacher's perspective. Results from behavior observations show one significant time \times group interaction, indicating a decrease in verbal aggression for the children that participated in the program, the additional five behavior variables showed no effects. The overall appraisal/judgement by teachers conducting *Faustlos* was "rather good". At the same time, teachers made critical comments that *Faustlos* was overly time-consuming, too top-heavy, and not enough child-friendly. The teachers recommended to include more playful elements, songs, picture books, and an overall child-orientation (Schick & Cierpka, 2006). Furthermore needs to be noted that age and risk-status were not controlled for and there was a big drop-out in the parents sample, limiting the validity of the results. The conducted child-interview was very closely related to the lessons with regards to content, questioning the transfer of the progress the children have made into their everyday lives (Klinkhammer, 2013). Moreover, long-term effects of the program are yet to be proven, no follow-up testing has taken place and a treated-control group has yet to prove that positive results are not due to the stimulating effects of the extracurricular activity.

2.4.1.3 *Papilio*

Papilio (Mayer, Heim, & Scheithauer, 2012) is a prevention program developed in cooperation with the Augsburger Puppenkiste (a marionette theater in Augsburg, Germany). *Papilio* does not have a manualized curriculum, instead it provides educational methods and a basic attitude/approach to be integrated by trained educators in the daily routines in kindergartens throughout the year. The materials of the program include a handbook covering the underlying theories and principals, a "Paula Box", including a reading-booklet, an audio play CD, a gremlin-song CD, 4 CDs with gremlin voices, gremlin templates, and one handbook with guidelines and methods for pedagogical professionals. Additional materials can be purchased if desired. An intensive training, consisting of 43 teaching units, is required before *Papilio* can be implemented (Klinkhammer, 2013).

The program has three main goals; (1) a primary prevention for behavioral problems and containing risk conditions, (2) fostering risk-mellowing conditions, and (3) supporting the accomplishment of age-specific developmental tasks (Mayer, Heim, Barquero, & Scheithauer, 2005). *Papilio* states to have an impact on three levels. The first level are the kindergarten teachers, they function as a key facilitator in promoting educational techniques and as role models. Their self-efficacy and collegial cooperation are being fostered in the training and they are trained to clearly verbalize routines and praise as positive reinforcement, to ignore undesired behavior, to avoid negative reinforcement, to use time-outs, to establish rules, and handle

disobedience of rules. The second level are the parents, they are provided with supportive educational materials to use at home at regular parent-teacher conferences and made aware of problems, as to support the transfer from learned behavior at kindergarten into the home environment. There is educational material for parents that can be purchased for the use at home. And the third level are the children, where a reduction of problem behavior, an increase of socially desired behavior, fostering emotional, and prosocial competences and strengthening peer interactions (Klinkhammer, 2013). Child-oriented means are; “Toys-on-vacation-day”, where all toys in class are put away one day a week to promote peer-interactions, “Paula and the gremlins from the box”, a story with supporting picture material, where children are trained in self-perception and external perception of emotions by sorting pictures of gremlins expressing various emotions in the corresponding box, and “mine-yours-yours-our-game”, based on the “Good Behavior Game”, to foster prosocial behavior by reinforcing children for observing predefined social rules and drawing on observational learning (Mayer et al., 2005).

Evidence from longitudinal evaluation studies with 645 children suggest that *Papilio* reduces problem behavior, strengthens prosocial behavior, and increases acceptance by peers. No effects on emotional competences were found (Scheithauer, Bondü, Niebank, & Mayer, 2007). However, these results were only found in teacher ratings, the same teachers that conducted the program in their kindergarten groups, limiting the validity of the results (Klinkhammer, 2013). Mayer Heim and Scheithauer (2007) used the teacher version of the subscales measuring behavioral problems and prosocial behavior from the “Strength and Difficulties Questionnaire – German version” (SDQ-deu, Goodman, 1997) and the subscale socioemotional competence from the “Verhaltensbeurteilungsbogen für Vorschulkinder“ (VBV 3-6, Döpfner, Berner, Fleischmann, & Schmidt, 1993), a differentiated assessment of behavioral problems, finding an improvement of social behavior and a decrease in a global problem score. In addition, teachers were given a questionnaire to evaluate the program (Mayer et al. (2007), with results showing that *Papilio* is perceived by educational professionals as being burdensome and causing labor unrest (Klinkhammer, 2013). There remains a need for further proof of the efficacy of the program, since Scheithauer et al. (2007) did not conduct follow-up testing’s, leaving the long-term effect in question. It is moreover necessary to apply a treated-control group, as to unequivocally reduce the positive effects to the program. Furthermore, since no experimental assessment or objective behavior observation of behavioral problems or personality development has taken place, it remains unclear if *Papilio* has any promoting effects on children’s behavior.

2.4.1.4 *Kindergarten plus*

Kindergarten plus (Maywald & Valentien, 2009) is a program for personality development and socioemotional development. As a universal prevention program, it addresses all children between 4.5 and 6 years of age in kindergartens and is best implemented in a small group of 8 to 12 children. It was developed in reaction to the poor performance of Germany in the PISA-study and the following discussion about the importance of early education (Deutsche Liga für das Kind, 2011).

The materials of the program are rather complex, they consist of a handbook for educators, hand puppets, name tags, nine emotion pictures, ten pictures of faces with emotional expressions, an emotion-barometer, anger-pillows, wooden frames, cotton cloths, 30 little wooden figures, wooden beads, CD with children songs, booklet with children songs, book with educational stories, written parent information, a movie on emotional intelligence, a poster, and evaluation sheets. *Kindergarten plus* pursues six sub goals; (1) fostering socioemotional competences, (2) supporting observation and documentation of personality, development and behavior of each individual child, (3) education and sensitization of parents, (4) qualification of pedagogical professionals, (5) profiling of kindergartens, and (6) strengthening public awareness for early education (Deutsche Liga für das Kind, 2011; Klinkhammer, 2013). Each lesson takes 90-120 minutes, one time per week and is conducted by an external trained educator and the familiar kindergarten teacher. *Kindergarten plus* is implemented with a fixed group and the nine lessons should be held within three to four months. *Kindergarten plus* consist of nine lessons and is organized in four units: (1) sensomotoric competences – lessons 1 and 2, (2) emotional competences – lessons 3-6, (3) social competences – lessons 7 and 8 and, (4) learn/study-methodic competence – lesson 9. All lessons proceed in a ritualized fashion, fixed elements of each lesson are the predefined greeting, a discussion circle, a song, a dance or movement game, a fruit-break, a creative task, and a predefined closing ritual (Klinkhammer, 2013).

At the beginning of the program children are introduced to sensory- and movement-experiences, before recognition, expression, and regulation of emotions are addressed. The mimic, bodily and verbal expressions of emotions are being trained by identifying emotions in pictures and staging them, social competences are being trained by imitating social situations with finger-puppets and the learned behavior is deepened in educational stories. However, the playful aspect is restricted to movement games, where the children can dance to a song, and imitating social situations and desired behavior with finger-puppets. This means that children practice the desired model-behavior only in the role-play with finger puppets, where not the

children themselves perform the socially competent behavior, but the puppets.

Kindergarten plus was evaluated with 424 children, ages 3 to 6, from 37 kindergartens, using a pre-post-follow-up-control-group design, with 228 children in the treatment and 196 children in the control group. The teacher version of the “Strength and Difficulties Questionnaire – German version” (SDQ-deu, Goodman, 1997) and the „Skala zur Erfassung des Emotionswissens“ (SEW- Kinderinterview; Janke, 2006; German translation of „Test of Emotion Comprehension“ by Pons & Harris, 2002) were used as outcome measures. Additionally, teachers were questioned regarding the children’s positive conflict behavior (Klinkhammer, 2013). At post-time of measurement children of the treatment group showed a significant decrease in externalizing problem behavior, however this effect was not found on follow-up, indicating only a short-term effect of the program (ibid.). Nonetheless, possible effects of the *Kindergarten plus* are yet to be proven, since no treated-control group was realized with the result that positive effects of the intervention could be accredited to the stimulating effect of the extracurricular activity. The validity of the evaluation is further impaired by the fact that effects were only found in teacher ratings, the same teachers that conducted the program. Additionally, since no experimental assessment of socioemotional competence has taken place, it remains unclear if *Kindergarten plus* has any promoting effects on a behavioral level.

2.4.1.5 *Verhaltenstraining im Kindergarten*

Verhaltenstraining im Kindergarten (Koglin & Petermann, 2013) is a universal prevention program, with the goal to reduce behavior problems (social insecurity and oppositional-aggressive behavior) in children, while fostering their social and emotional competences. The training group should not exceed 18 children. *Verhaltenstraining im Kindergarten* consist of 25 lessons and is organized in six units: (1) basic emotions, lessons 3-10, (2) social emotions, lessons 11 and 12, (3) emotion knowledge, lessons 13 and 14, (4) perception and interpretation of conflicts, lessons 15-17, (5) finding action alternatives for conflicts, lessons 18-20, (6) finding and evaluating consequences of own actions, lessons 21-23. With the first and last two sessions serving as introductory and closing elements respectively (ibdi.).

The training is held by a kindergarten teacher for 30 minutes, two times per week and it lasts about three months. At the beginning of the program children are trained in perceiving and differentiating between basic emotions, elicitors are being discussed, as well as different forms of emotion regulation (Wadepohl, Koglin, Vonderlin, & Petermann, 2011). Later in the program, problem-solving skills, alternative strategies for solving social conflicts, and appraisal

of action alternatives are being trained. One intervention means is positive reinforcement, children are being rewarded with stickers for ‘sitting’ and ‘watching’, both are considered prerequisites for following the content of the program (Koglin & Petermann, 2013). Other means are coloring pictures from a coloring book, movement games, puzzles, and ‘role-play’. Again, the role-play aspect is limited to children practicing the desired target behavior in role-play. If children show the correct behavior in role-play the teacher reinforces them, if they deviate from the script the teacher intervenes and prompts the desired target behavior. Observational learning and operant conditioning seem to be the chief subjects of the training.

Verhaltenstraining im Kindergarten was evaluated with 311 children from 20 kindergartens, using a pre-post-control-group design, with 127 children in the treatment and 129 children in the control group and children in the control group being significantly younger (Wadepohl et al., 2011). Outcome measures were the teacher version of the “Strength and Difficulties Questionnaire – German version” (SDQ-deu; Goodman, 1997) and the „Fragebogen zur Erfassung emotionaler Kompetenz” (FEEK; Koglin & Petermann, 2004).

Results indicate that socioemotional competences, assessed with SDQ-deu and FEEK, increased in both groups, while problem behavior decreased. There were significant time × group interactions on some subscales, indicating that children from the treatment group had less problems with peers and more prosocial behavior after the intervention, with a stronger effect for children at risk. It needs to be critically noted that all measures were teacher questionnaires, no experimental assessment of any interesting outcome variables were assessed, plus the rating teachers were the same ones leading the lessons, their answers could therefore be biased. There remains need for further proof of the efficacy of the program, since Wadepohl et al. (2011) did not carry out follow-up testings, leaving the long-term effect in question. It is furthermore necessary to apply a treated-control group, as to unambiguously attribute the positive effects to the program. Plus, the significant age difference between treatment and control group was not accounted for, since age was not partialled out in the analyses. These shortcomings leave the validity of the evaluation study questionable.

2.4.1.6 Further programs

PriK (Fröhlich-Gildhoff, Dörner, & Rönnau-Böse, 2012) is a primary mental health prevention program for preschool children between 4 and 6 years of age, with the goals to promote resilience and foster competences needed to cope with life events. *PriK* consists of 22 lessons, 35-45 minutes each, conducted by two kindergarten teachers on a fixed day in the week. In 22 lessons, a group of eight to ten children is trained in stress management, problem-solving skills, social competence, self-perception, self-control, and self-efficacy. Also, parents are

being advised on education techniques, while pedagogical professionals are offered further training to qualify them in conducting the program and handling children's emotions. The content structure of each lesson is systematic and each lesson follows the same pattern, while giving educators the freedom to choose their own greeting and closing ritual. Playful and musical elements are part of the curriculum, but the thematic relatedness remains unclear (Linkert, 2012). Evaluations of the first edition of PriK reveal an improvement of self-esteem and cognitive development in the treatment group (Fröhlich-Gildhoff, Mischo, & Castello, 2009).

Ich kann Probleme lösen (IKPL; Beelmann, Jaurusch, & Lösel, 2004) was developed as part of the parent training EFFEKT and represents a social competence group training, addressing children between 4 and 7 years of age. *IKPL* consist of 15 lessons, 45-60 minutes each, to be carried out by two educators in three to five weeks in kindergarten. It is best be implemented in a small group of 6-10 children. Children are trained in socio-cognitive problem solving using methods like looking at pictures with subsequent inquiry-response cycles, movement games, role-play for imitating and training adequate behavior, coloring pictures from a coloring book, and singing (ibid.). *EFFEKT-parent training* and *-child training IKLP* were evaluated using a quasi-experimental pre-post-follow-up-control-group design. The child training by itself showed short term effects regarding social behavior, hyperactivity, and emotional problems, however, effects were the strongest in the combined training condition (parent- and child-training). Long-term effects were inconsistent (Lösel, Beelmann, Stemmler, & Jaurusch, 2006). No active control group was implemented and no experimental assessment of target behavior was realized, leaving the efficacy and validity of the program and its evaluation debatable.

Smile Keepers (Ignjatović-Savić, 2007a) is a universal prevention program, developed in Serbia and Montenegro in 1990, with the initial goal to prevent post-traumatic stress disorder in children traumatized by war. *Smile Keepers* was found to be adequate for universal use as a program to support personality development outside of (post-)war zones, with the overall goals to promote perception, expression, and regulation of emotions and non-violent communication (Ignjatović-Savić, 2007b). There are three curricula for *Smile Keepers* that can be implemented in curricula at regular/public schools; (1) *Smile Keepers I*, for children between five and ten, (2) *Smile Keepers II*, for children between 11 and 15, and (3) *Smile Keepers III*, for adolescents between 15 and 18 (Hermann, Sauter, Roth, & Baumgartner, 2015). The latter two will be neglected here, due to the addressees' age range. *Smile Keepers I* applies playful methods, such as drawing (e.g., 'My circle of worries', where children are instructed to draw things that worry

them or problems they think about in a circle on a piece of paper, afterwards the group discusses what can be done to stop the worries), role-play (e.g., role-play about a case of telltale in small groups, where children are divided in groups of five, four a playing the children, one is playing the teacher who is trying to make peace among the four), and symbolic expression (for instance the ‘Guessing feelings game’, where one child is instructed to think of something that happened to him or her and to demonstrate that feeling with an expression, the other children have to guess what the feeling is). These methods enrich children’s play outside the intervention considerably (Hermann & Holodynski, 2014). Moreover, in the program children are encouraged to share their experiences and emotions in a discussing circle, giving the opportunity for introspection and empathy (Hermann et al., 2015). Hence, *Smile Keepers* is the only program so far not only using cognitive learning strategies and one of the few programs that make no use of extrinsic reward characteristics found in most (cognitive-) behavioral programs listed here. *Smile Keepers* was evaluated using a pre-post-control-group design, with self- and teacher-questionnaires. Results show a significant decrease in depression- and anxiety scores, improvement of emotion regulation, increase in empathy, and self-confidence and an enhancement of child-teacher relationships (Ignjatović-Savić, 2007a; Hermann & Holodynski, 2014). It needs to be noted that the rating teachers were the same ones leading the lessons, their answers could therefore be biased.

Emotion-Based Prevention Program (Izard, Trentacosta, King, & Mostow, 2004) is a 20-week-treatment designed to be implemented by teachers in Head Start classrooms (preschool setting). *EBP* is a theoretically-coherent program, primarily guided by emotion theory. The goals are to increase emotion competence and to decrease maladaptive behavior, with these goals to be reached by training emotion knowledge and emotion regulation (Izard et al., 2008). The program also involves parents, they learn about *EBP*’s content in four 4-hour meetings and are educated about the importance of recognizing and dealing with emotions in parent-child interactions. *EBP* is the other program listed here that makes no use of extrinsic reward characteristics (ibid.). *EBP* was evaluated in two studies, one using a pre-post-control-group design and the other using a pre-post-treated-control-group-design (Izard et al., 2008). Both studies found that *EBP* increases emotion knowledge and emotion regulation in only some of the children in the treatment group, while reducing negative emotionality, anxious and depressed behavior, and maladaptive behavior (Izard et al., 2008). Izard and colleagues (2008) results are partly inconclusive and no follow-up testing was conducted, leaving the (long-)term effect of *EBP* moot.

2.4.1.7 Conclusion

All above-mentioned programs are development-oriented prevention programs that are based on findings from developmental science. They attempt to be age appropriate and their declared goal is to foster social and emotional competences. These programs have in common that they are ‘universal’, meaning that they address the whole group/class instead of only targeting children at risk for socioemotional delays or deficits, and they are ‘preventative’, i.e. that they apply before children have developed a pathological condition (Hermann & Holodynski, 2014). All mentioned programs emphasize the competent handling of emotions in order to succeed in social interactions and interpersonal relationships, since fostering these competences is believed to prevent aggressive and anti-social behavior and the development of mental problems (Hermann & Holodynski, 2014; Klinkhammer, 2013).

The introduced programs try to impart the general values of cooperative and socially accepted behavior and adequate emotion expression and aim to achieve a positive atmosphere in class, integrate outsiders, and children that are at risk (Hermann & Holodynski, 2014). Also, all above-mentioned programs (except for *Papilio*) facilitate the implementation in educational settings by providing structured manuals. Such structured manuals ensure a somewhat consistent and gradual implementation of the programs contents, because the sequence of the units is clearly prescribed based on logical criteria, without leaving too much room for individual interpretation, maintaining a certain quality.

In an attempt to judge these programs, it has to be critically noted that they all have a strong communicative focus and rely heavily on verbal instructions of cognitive strategies, posing a disadvantage for non-native speakers and children with language impairments. These children might have difficulties profiting from the programs, since most of the applied activities are verbal discussions. These verbal discussions are problematic, because language is linked to the quality of peer interactions and the cycle of poor communication skills leading to difficult peer-interactions, leading to an increase in problem behavior is likely to persist, if language skills are not addressed or language deficits are not accounted for in early interventions (Clarizo as cited in Craig-Unkefer & Kaiser, 2002). In addition to being language-loaden, curricula such as *Lubo*, *Faustlos*, *Kindergarten Plus*, *Verhaltenstraining im Kindergarten*, *PriK* and *EFFEKT* have strong behavioral, cognitive and verbal foci, while lacking play- and body-oriented exercises. They mainly rely on instructional, cognitive imparting of knowledge, are overly “top-heavy”, and primarily use conditioning to reinforce desirable behavior. The only programs not using operant conditioning for reinforcing desired behavior are *Smile Keepers* and *EBD*. Reinforcing desired behavior is generally a questionable approach, since in contemporary early

education it is essential to follow children's interests and thereby promote their development, instead of expecting them to study assignments from learning curricula and train desired behavior, especially since the transfer into everyday lives remains questionable (Linkert, 2012).

Moreover, it can be assumed that most of the introduced programs teach about emotions by cognitively training the recognition of emotion expression, labeling of emotions, emotion regulation strategies, and cooperative solutions of conflicts (which requires a functioning self-regulation), but fail to ensure that children understand how a complete emotion episode unfolds, how it feels to experience an emotion, and how to regulate emotions. However, the experience of an emotion is necessary in order to sense emotion indicators in oneself. Only when the recognition of inner sensations of emotion indicators is given can an emotion become reflective, which is needed in order to distance oneself from the sensation, to become aware of the emotion, and consequently develop the ability for a functioning emotional self-regulation (Holodynski, 2006; Lambie, 2009). Thus, it would be a promising intervention approach to focus on emotion awareness, by training the ability to distance oneself from an emotion's dominant actions readiness, because it is the necessary first step on the way to successful reflective emotion regulation. Emotion awareness develops in preschool (Holodynski, Seeger, et al. 2013) and can be promoted in two ways; (1) thru Emotion Coaching (Gottmann & Gottman, 2013) and (2) by pretend-play (Galyer & Evans, 2001).

2.4.2 Emotion Coaching

Emotion Coaching (Gottman & Gottman, 2013) is a program that aims to teach parents and caregivers how to become emotionally more responsive to children, which would in turn, create *emotional intelligence*. Promoting emotional intelligence means helping the child understand and identify their own emotions by recognizing what they are feeling and why. Emotional intelligence is defined by Gottman & Gottman (2013) as someone listening to their inner voice, who is able to put their feelings into words, and can empathize with another person's feelings, while responding to emotions with appropriate behaviors in a cooperative, functional, and empathetic manner, all of which are prerequisites for emotional competent behavior. Promoting emotional intelligence thru Emotion Coaching means listening to the child, trying to feel what the child is experiencing and then putting what the child is feeling into words, validating the child's right to have those feelings (ibid.). Havighurst and Harley (2007) explain that what is called 'emotional competence' in child development literature is often called 'emotional intelligence' in the adult personality and popular literature, but both consist of the same skills and can be used equivalently.

Emotion Coaches teach children to manage feelings in a positive way, with the goal to enable them to regulate their own behavior (Gottman & Gottman, 2013), it basically describes one form of promoting emotion awareness in children. Learning emotion awareness can be supported by the Emotion Coach (a sensitive adult, whose attention is focused on the child's feelings in a given situation) while the child is experiencing an emotion. Becoming an Emotion Coach can be realized by applying the following five steps: (1) being aware of a child's emotion, by recognizing facial expressions, body language and pitch of voice, (2) seeing the emotional moments as an opportunity for establishing a positive relationship, intimacy and teaching, (3) helping the child to find words to label the feeling, hence categorizing it, (4) listening empathetically, validating feelings verbally and thereby demonstrating the child that his or her emotions are being seen and accepted, (5) setting limits to unacceptable behaviors and actions, while generating options and teaching problem-solving methods (ibid.). Specifically, the Emotion Coach realizes emotion awareness thru the empathetically mirroring of affect, naming and mirroring the emotional expression displayed by the child, giving the child access to his or her emotions. With the Emotion Coaches guidance, the child learns over time to distance himself from the directional sensation of his or her emotion, to categorize it and then regulate it. "A child can only manage an emotion that they understand." (Gottman & Gottman, 2013, p. 69).

Empirical evaluations of Emotion Coaching have found links to the emotional competence of children, although these links are somewhat weak and should be interpreted with caution. Lagacé-Séguin and d'Entremont (2006) explored the links between parenting styles (self-report of parental emotional and disciplinary styles), negative affect (mothers completed the negative affect subscale of the Positive and Negative Affect Schedule, PANAS; Watson, Clark, & Tellegen, 1988) and children's play behaviors (teachers completed the Preschool Play Behaviour Scale, PPBS; Coplan & Rubin, 1998) by applying moderated regression analyses. They found a significant interaction between an emotion coaching parenting style and children's negative affect to predict rough-and-tumble play for children low in negative affect but not for children high in negative affect. "Specifically, an emotion coaching parenting style was negatively related to engaging in rough-and-tumble play among children low in negative affect." (ibid., p. 472). Ramsden and Hubbard (2002) investigated the link between family emotion variables (i.e., positive and negative family expressiveness, and parental emotion coaching) and child aggression. They did not find a direct link between the self-reported family emotion variables (interview of mothers' coaching of the child's emotions and Family Expressiveness Questionnaire (FEQ; Halberstadt, 1986) and teacher-rated child aggression,

however, these constructs were indirectly linked through children's emotion regulation (teacher and parent report of Emotion Regulation Checklist, ERC; Shields & Cicchetti, 1997).

Other studies found children receiving Emotion Coaching were better able to inhibit negative affect and to focus attention, more likely to have good cognitive abilities, better social skills, they also showed more prosocial behavior, were less often sick than children who did not experience this parenting style at home (Eisenberg, Cumberland, & Spinrad, 1998; Gottman, Katz, & Hooven, 1997). All empirical evidence hints towards a positive effect Emotion Coaching can have on children's social and emotional skills.

However, in order to be able to coach a child's emotions, the adult must wait for an emotion moment to occur, before he or she can emotion-coach. Hence, only people who are continuously in contact with the child in everyday life can provide this kind of emotion coaching. Plus, even in everyday life situations not all emotions occur in similar frequency, for instance between one and six years joy and anger occur almost exclusively (Hartmann & Holodynski, 2008). As Gottman and colleagues (1997) stated themselves, Emotion Coaching has a strong focus on language, primarily educating the child verbally about emotions. Again, verbal instructions of cognitive strategies are at the core of the program, but in contrast to the above-mentioned programs, Emotion Coaching allows for a complete emotional episode to be at the center of the discussion, allowing the child to link his or her own inner sensations to the expression visible in the adult's face and associate that with the verbal label provided by the adult. As mentioned before, the Emotion Coach realizes emotion awareness through mirroring and naming the emotional expression displayed by the child, giving the child access to his or her emotions, enabling the child to distance him- or herself from the emotion urge, to categorize the feeling on a level of categorical awareness and subsequently regulate the emotion. An alternative to teach emotion awareness to children, where one does not have to wait for an emotion episode to occur, is guided pretend play.

2.4.3 Pretend-Play

Pretend-play is another means to promote emotion awareness in children, with the latter being a vital prerequisite for functioning emotion regulation (Hermann & Holodynski, 2014). Pretend-play and emotion regulation are positively related, as shown by Galyer and Evans's (2001) correlative finding that children who engaged in pretend-play with their caregivers frequently, exhibited higher ratings of emotion regulation. Pretend-play also has a distinct advantage over Emotion Coaching, because it does not depend on an emotion episode to occur, but is free to create emotions in play at any time. Moreover, Brédikytė and Hakkarainen (2011) argue that play is the primary form of thinking in early childhood, while play actions function

as materialized, partly unconscious thoughts (like wishes and needs). Thru pretend-play actions, children can express their thoughts and ideas and the play actions can substitute for language, which is supported by Vygotsky's notion that "a child's symbolic play may be understood as a very complex system of speech aided by gestures." (as cited in Brédikytė & Hakkarainen, 2011, p. 61). Therefore, play as a system of speech can assist in moving from concrete operations (thinking in gestures and other symbolic media) to abstract thinking (thinking in words and narratives) (ibid.). Pretend-play is believed to have various positive impacts on the child's development, for instance evolved patterns of play help children acquire and practice cultural skills and social values, learn establish friendships, to get along with peers, and to regulate impulses and emotions (LaFreniere, 2013).

2.4.3.1 Defining Pretend-Play

Pretend-play is also called role-play, make-believe-play, or imaginative play (Hauser, 2013), all these expressions are used synonymously in the play literature. Pretend-play can broadly be defined as "a symbolic behavior in which one thing is playfully treated as if it were something else." (Fein, 1987, p. 281), it always has a 'pretense' or an 'as-if' aspect to it (Lillard et al., 2013), and is most prominent in preschool age (Singer & Singer, 1990). In the preschool period, pretend-play develops from simple imitative acts into more elaborate plots involving a more complex coordination of roles (Berk et al., 2006). However, there is no uniform definition of pretend play, but there is considerable agreement that pretend-play actions are nonliteral and simulative, that they always involve projecting an idea on an actual situation, and in addition to always engaging in 'as if'-actions, pretenders volitionally transform the 'here and now, the you and me' (Kavanaugh, 2013).

Pretend-play is also characterized by flexibility, positive affect, and intrinsic motivation (Sutton-Smith & Kelly-Byrne, 1984). Berk et al. (2006) further subsume that pretend-play is distinguishable from other preschool activities by two central elements: (1) imaginary situations in pretend-play help to separate mental representations from the objects and events for which they stand, they help to learn that symbols are distinct from reality, eventually enabling children to use symbols as tools for managing their impulses and behavior, and (2) pretend-play is always rule-based, children are following social rules, thereby practice to act in line with social expectations. These two elements enable that pretend-play can contribute significantly to the development of self-regulation, and that pretend-play is one of the socialization experiences that contribute to an emotionally well-regulated child (ibid.).

2.4.3.2 *Cultural Influences on Pretend-Play*

“Vygotskians view play as an imminently cultural activity...” (Bodrova et al., 2013, p. 118), always emerging in specific social and cultural contexts, imitating every-day life actions typical for the respective culture (Hauser, 2013). Hence, pretend-play is pervasively affected by the cultural setting, the abilities and the values of children’s playmates and therefore varies across social subsystems and cultures (Garvey, 1990). For instance, in industrial cultures children engage in more competitive play (which is presumably due to the achievement orientation in such countries) than in agricultural societies, where cooperative play forms prevail (Hauser, 2013). In our Western culture, children’s first pretend-play partners are mostly their parents, and pretend-play is often initiated by parents (Hauser, 2013). Also, in Western cultures young children gradually start to engage in spontaneous pretend-play with their peers, interacting with a range of different playmates, with varying levels of elaboration in their play. No matter the level of elaboration, Garvey (1990) suspects that each play partner supports the child’s development in complementary ways, because children who are encouraged to pretend-play frequently and are exposed to a broad variety of playmates, have a distinct advantage over those children who have had less opportunities and therefore a smaller repertoire of play styles. However, pretend-play does not have impact on development and emotion regulation per se, it is the developed forms of play that do, also called “mature play” (Bodrova, Germeroth, & Leong, 2013).

2.4.3.3 *Promoting Effects of Pretend-Play on the Development of Emotion Regulation*

Various theorists and researchers hold the opinion that pretend-play is pivotal in children’s acquisition of self- and emotion regulation, with most of the work being based on the sociocultural theory of the Russian developmental psychologist Lev Vygotsky, who viewed social experience (including pretend play) as a prime facilitator of development (Berk et al., 2006). Vygotsky also coined the term “mature play” and emphasized its importance for the development of socioemotional competences, according to him development can only be promoted in mature play (Bordova et al., 2013; Elkonin, 1978). Mature play is characterized by several features, such as that children create an imaginary situation, that they not only carry out as-if actions, but plan their play in advance, that they take on and act out roles, while following the set of rules determined by the respective role, all while re-enacting emotionally charged events of the plot. Mature play can be learned from engaging with more competent peers and from participating in play groups that are guided by an adult, who joins the play (Ashiabi, 2007; Bordova et al., 2013).

Mature play supports the development of self-regulation by creating a situation in which children cannot be driven by their need for instant gratification, but in order to follow the rules of the play and the rules of their role, they need to suppress their immediate impulses. Suppressing impulses requires children to volitionally inhibit behavior that is not part of their role, but to act deliberately and intentionally. "Play continually creates demands on the child to act against immediate impulse... Because to observe the rules of the play structure promises much greater pleasure from the game than the gratification of an immediate impulse." (Vygotsky, 1967, p. 14). Therefore, pretend-play is also characterized by the rules of the respective roles and the rules of the imaginary situation. A notion that is also supported by Elias and Berk (2002), who confirm that while playing, children must inhibit impulses in favor of following the social rules inherent in the pretend-play context. For instance, children playing 'house' follow the rules for maternal behavior for the child playing the mother (Bodrova, 2008). The role of the mother or the roles of other adults are mostly taken on by more competent players (mostly older children). This assuming of adult roles results in children adjusting their behavior to social norms, thus practicing planning, self-monitoring, and reflection, all of which are crucial for intentional behavior (Elkonin, 1978). This intentional behavior can be seen in mature play, when children plan their play in advance and discuss future actions, when they agree on a plot, roles, the relation between the specific roles and which props they want to use. This intentional behavior and planning can be seen as an antecedent to reflective thinking, which is an important aspect of self-regulation (Goldberg as cited in Bodrova et al., 2013). In sum, mature play can help develop motivation, perspective-taking, the development of imagination, volition, and self-regulation (El'konin, 2010).

Promoting mature play is beneficial for reflective emotion regulation. Fler and Hammer (2013) proposed guided pretend-play of fairytale as a means to promote exactly this mature play in children. The proposed fairytale based pretend-play intervention would need to involve repeated telling, acting, and role-playing of classical fairytales (Bettelheim as cited in Fler & Hammer, 2013) and would create joint *playworlds* with adult guidance (Baumer, Ferholt & Lecusay, 2005; Breidkyte, 2011). Playworld, a formulation minted by Lindqvist, (1995), describes a shared world of fiction through joint dramatizations of adults and children in a classroom. In these playworlds, imagination is vital to reliving the predictable but dramatic plots (Fler & Hammer, 2013). The predictability in combination with repetition enables emotional anticipation (*ibid.*), and anticipation of an emotion episode allows preparation, therefore it is less surprising and the child is less prone to act on his or her dominant action readiness. Predictability of how an emotion unfolds is also created by the repeated dramatizing

of an emotion episode, which allows for an early psychological distancing from the elicited emotion and the situational cause of the emotion can be consciously perceived.

Promoting effects of role-play with emotions can be drawn from Fleer and Hammer (2013), who explain Vygotsky's "double expression of feelings", relating to contradicting feelings in free play. This contradiction of feelings occurs when a child feels happy about being involved in play (joy of playing), but at the same time is playing a scared little goat who is terrified, because e.g., the wolf is knocking on the door (as in Grimm's fairytale 'The Wolf and the Seven Goats').

Here a child experiences the emotion fear and the emotion of joy simultaneously. We believe this doubleness of emotional expression in fantasy play and in drama are theoretically connected when they are consciously considered as feeling states. In free play where no adult involvement is planned, these emotions are experienced but not necessarily made conscious as feeling states. (Fleer & Hammer, 2013, p. 248).

In order to make those emotions conscious in play an adult needs to be involved, as to help children experience a contingency between the feeling state, the emotion expression, and the respective verbal designation of that feeling, allowing for emotional awareness to arise (Fleer & Hammer, 2013; Holodyski, 2009b). Hence, emotional awareness in pretend-play is possible, because the player reconstruct a complete emotion episode, while the involvement of an adult helps the child to connect the inner sensations to the external visible expression signs, by showing and naming the respective emotional expression that is being enacted (see chapter 3.4 *Gaining emotion awareness in the roleplay of fairytales* for more details). Furthermore, by enacting emotions in pretend play, multiple opportunities to enact and modify a wide variety of emotional experiences is possible, thus helping children to master negative emotions in a safe setting (Fein, 1989). Pretend-play is a context in which children have the chance to process, manifest and modify experiences that involve high levels of arousal (Galyer & Evans, 2001). And at the same time, pretend-play with emotions offers countless opportunities for children to practice emotion regulation strategies, because pretense allows for reality to be reinterpreted. This reinterpretation can help to satisfy unsatisfied motives in one's imagination, challenging or emotionally aversive experiences can be processed and reinterpreted as less threatening and a positive solution be found, and successes and impressive experiences can be relived (Holodyski, 2006).

2.4.3.4 *Pretend-play approaches in preschool settings*

In her qualitative research Lindqvist (1996), a researcher from Sweden, picks up on Vygotsky's cultural-historical theory and emphasizes the importance of play. She holds the view that play is a cultural activity and finds it widely neglected in preschools, which motivated

her to develop an approach to play which stresses the relation among play, art, and the cultural development process. According to Lindqvist (1995; 1996), play is an aesthetic and creative process, where children can carry out their imagination and create new meaning for their emotions and thoughts. In her research, Lindqvist minted the above-mentioned term *Playworld* and conducted a qualitative intervention study, where adults deliberately influenced the children's play progress in the ZPD, the 'Zone of Proximal Development' (Lindqvist, 1995).

The intervention was carried out in a Swedish day-care center over a 12 month-period and was supervised by a teacher of drama and a teacher of pedagogics, but carried out by the kindergarten teachers at the center. The intervention turned the kindergarten into a playworld (Lindqvist, 1996). Organized dramatizations and playing within the playworld were realized a few times a week. Apart from that, children played with one another or with the teachers in spontaneously formed groups (Lindqvist, 1995). According to Lindqvist (1996) this procedure challenged not only the children's ZPD, but also their imagination and problem solving. The underlying idea of the intervention was to introduce meaningful themes (e.g., emotions like fear and loneliness) by reading a dramatic story from children's literature, providing a dramatic plot and the basic structure, "through a dialogue with the children, the adults were to bring the literature to life by assuming different roles and make use of the intrinsic dynamism between world, action and character in drama and play." (Lindqvist, 1995, p. 72).

Each emotional theme of the intervention is introduced by first reading a story (sometimes supported by illustrations), then different parts of the stories are brought to life by the teachers (by enacting main characters and personifying feelings), thereupon the settings and side-scenes might be built or painted together, or costumes and props crafted, allowing for the stories to become the central points of the day-care center, accompanied by a joint enactment of the plot with the children. Jointly dramatizing the action provides play with meaning, creating a dialogue between children and teachers and creating a common playworld. Thru creating a playworld children become familiar with the story, the plot, and the setting and grow aware of the formula of play. This mutually created playworld (the common fiction, where the play action and characters from the stories are brought to life) remains in the main playroom throughout the duration of the theme, giving the children full access at all times and allowing for their own play ideas to emerge and be put into action.

Qualitative evaluations of the data (which was done by analyzing videotaped play sequences, observations, interviewing pedagogues and parents, and analyzing the classes' project reports) pointed towards an increase in play activities and improved teacher-child

interactions. The data also indicated that the teachers' ability to dramatize and improvise had improved and the frequency in which they did so had also increased.

However, a real evaluation of the intervention was not possible, since no structured data were collected, no indication of subjects and their demographic information is provided, and no systematic results are available. The lack of experimental evaluations leave the effects of the intervention questionable. The results presented are anecdotal and descriptive, indicating a rather poor qualitative analysis (Pope, Ziebland, & Mays, 2000). Nonetheless, it can be derived from the narrative description of parent and teacher comments that children's play had changed over the course of the intervention, children played much more and their play had become more harmonious (Lindqvist, 1995). Apparently, children had an easier time finding themes for their play and creating different playworlds, and the peer relationships had generally improved. Lindqvist further observed that the children's age played a crucial role in the development of play. Her observation was that children only started to show an interest in pretend-role-play at the age of six and she concluded that the ability to consciously dramatize different characters is probably not acquired until children are 6-7 years of age. Lindqvist (1995) concluded that in play it is quite fruitful, if not necessary, that children are not from the same age group, as to enable mutual learning.

Brėdikytė (2011), a researcher from Lithuania, also investigates the relationship between play and child development, with her theoretical framework also being based on Vygotsky's cultural-historical theories and his concept of the ZPD. Similar to Lindqvist's approach, Brėdikytė (2011) aims to demonstrate under which conditions play producing pedagogy can enhance creativity and joint play and how an adult's involvement in play can support child development, proposing a narrative play pedagogy approach, using a narrative intervention and a joint playworld, in accordance to Lindqvist. However, Brėdikytė's approach "takes into account the specific character of children's narrative culture, play as the leading activity in early childhood, as well as the creative and collaborative character of human development." (Brėdikytė, 2011, p. 16). Brėdikytė (2011) makes a strong case for the meaning of play in early childhood by arguing that it is the main age-appropriate form of learning for that age-group, by stressing the positive impact of mature play on academic and realistic learning and by emphasizing its unique impact on the child's cultural development.

The main foci of Brėdikytė's play intervention are joint creativity and improvisation, instead of academic learning. Therefore, she developed *dialogical drama with puppets* (DDP) as a play intervention suitable for preschools. DDP is embedded in a 'play generating narrative curriculum' and is based on creative drama and storytelling, with the main goal to start a dialog

between teacher and children and to encourage the children to join the play. In DDP adults are used as co-constructors of a joint playworld, because play is not biological inherited, but learned from social environment and passed on from one generation to the next (Brèdikytė & Hakkarainen, 2011). The underlying idea of DDP is to first present a story (fairytales and self-created stories), followed by a puppet theater of the story and finishing with a dialogical form of interaction, where the story is reflected and reconstructed as to ensure a full understanding of the contents, before the children can enact it in free play (Brèdikytė, 2011). In DDP teachers join the children's play at a later point in the day, either in role or with puppets with the goal to help them develop a joint playworld, by creating and organizing a cultural environment, demonstrating behavior models, and acting as co-players. As co-players, teachers promote play-development by extending the content and forms of activities (providing new ideas, puppet theater, etc.), by actively participating in the play and providing materials, props, etc., all of which are supposed to enrich children's experiences.

Over a period of six years 62 children from 30 families participated in the qualitative study. Children were 0-6 years old, but the researchers focused on children between 2 and 5 years. Once a week, a group of approx. 15 children attended the 'play club' at the play lab and stayed for four hours. Approximately 160 trained students conducted the intervention over the six years and even though the intervention followed a general schedule, the application of intervention was somewhat free (Brèdikytė, 2011), unstructured, and generally arbitrary. Data were collected by videotaping the sessions, written on-line reports, field notes of the students, written observations, and detailed play narratives. Data were analyzed qualitatively and alongside data collection over the six years. For evaluation purposes, the most successful play sessions were compared to the least successful ones, with the goal to define criteria for effective adult intervention strategies (Brèdikytė & Hakkarainen, 2011).

In contrast to Lindqvist (1995), Brèdikytė provides more information about the methodology of the study, the demographics of her subjects, and content analysis she used to generate categories. However, the presentation of results is also anecdotal and descriptive, also leaving the impression of a rather poor qualitative analysis (Pope et al., 2000). Nevertheless, the qualitative results can be interpreted somehow. First, the data indicate that adults can successfully intervene in the ZPD, if following certain steps, such as organizing, guiding, and observing children's activities, demonstrating new behavior models, introducing new knowledge and practicing new skills with the children, actively supporting children in participating in role-play, in taking on a role, only when needed, "Adults should support *the whole structure of play* when it is starting to fall apart." (Brèdikytė, 2011, p. 193). Second, the

data suggest that adult guidance in joint play is important for transitioning from simple to mature play, because children can imitate activities previously carried out and practiced with the adult, enabling the children to plan and organize themselves. “I can conclude that shared play activities with adults or competent peers prepare critical turning points and qualitative changes in play activity and child self-development.” (Brèdikytè, 2011, p. 196). Third, the data show that all children of the study took creative steps, because of the narrative adult intervention, in which cultural environments were created, in which children can carry out creative acts. And fourth, Brèdikytè drew from the data that participating in the narrative intervention and the collaborative co-construction of joint activity also promoted the adults professional growth. However, the lack of experimental evidence leaves the efficacy of the intervention uncertain.

2.4.3.5 Empiric Evidence for the Impact of Pretend-Play on Emotion Regulation

Many studies indicate a unique relationship between mature play and emotional self-regulation (Bodrova et al., 2013; Bodrova & Leong, 2010; Bretherton, 1989; Chinekesh, Kamalian, Eltemasi, Chinekesh, & Alavi, 2014; Denham et al., 2003; Eisenberg, 2003), but very few have used methodologically complete intervention designs to investigate that relation. However, correlative studies suggest a positive connection between sociodramatic pretend-play with peers and emotion regulation in preschool children, also, the quality of play interactions was positively associated with self-determination (Fantuzzo, Sekino, & Cohen, 2004). A small-sample study by Lemche et al. (2003) found that evoked play narratives are linked to emotion-regulatory processes. In another correlative study, Galyer and Evans (2001) explored children’s emotion regulation in pretend play, using a negatively valenced, experimenter-induced pretend-play scenario in a laboratory (a large crocodile puppet threatened to eat all the toys and buildings that the child had constructed, thus ending the game), which was supposed to elicit emotional arousal. Children who positively resolved this situation and continued playing were also rated in parental reports as having more effective emotion-regulation skills in their daily lives (Berk et al., 2006; Galyer & Evans, 2001).

In an observational correlation-study, de Lorimier and colleagues (1995) compared dyads of either 4- or 6-year old children and compared the quality of pretend and nonpretend social play in 30-minute free-play sessions. The researchers found positive correlations between the developmental level of emotion regulation and children’s social skills, indicating that pretend-play with peers can enhance socially mature behavior and provide a context for practicing socioemotional competences (ibdi.). In another observational correlation-study, Elias and Berk (2002) tested whether sociodramatic play contributes to the development of self-regulation,

using a short-term longitudinal design with 51 preschool children. Different play scenarios (dramatic play, complex sociodramatic play and solitary dramatic play) and two situations requiring self-regulation (clean-up periods and circle time) were naturalistically observed. Self-regulation observations were repeated a few months later in order to assess development. Correlative findings suggest a strong relationship between complex sociodramatic play and self-regulation, especially for children with highly impulsive behavior, indicating that children with the biggest challenges in the development of self-regulation could profit the most from pretend-play with peers (*ibid.*). However, the mentioned studies are merely suggestive, they report correlative or observational data, they did not use measures of emotion regulation and lack experimental manipulation in general. None of these studies directly answer the question of whether pretend-play can enhance self-regulation, making them non-conclusive.

In 1977, Saltz, Dixon and Johnson conducted one of the only intervention studies, where children were trained in one of three different fantasy activities; (1) thematic-fantasy play, where children dramatically enacted fairytales with adult support, (2) sociodramatic play, children were enacting more “realistic”, previous experiences, like going to the doctor or visiting a fire station, and (3) fantasy discussion, where the same fairytales from the first group were read aloud by adults and discussed, but not enacted, and compared to (4) an untreated control condition, where children engaged in regular preschool activities, such as crafting (Nicolopoulou & Ilgaz, 2013). All children participated in their respective training over the course of a school year and effects were evaluated using various measures of cognitive development and self-regulation (impulse control). Results of this intervention study indicate that pretend-play of fairytales lead to stronger increases in impulse control and other cognitive measures than sociodramatic play, sociodramatic play however, was still superior to simply reading and discussing fairytales and the control condition. These results give reason to believe that fantasy play is more suitable for fostering socioemotional competences than realistically oriented (sociodramatic) pretend play, supposedly because fairytales are remoter from reality and therefore less threatening for children, and they have themes that could be relevant to children’s conflicts and problems (Bettelheim, 2015; Saltz et al., 1977; see chap. 3.3 *Fairytales*).

The other training study was done by Moore and Russ (2008), where 50 children from 6 to 8 years were randomly assigned to one of three experimental groups, (1) affect play intervention, where children were given a set of toys and the experimenters used standardized scripts and prompts to have each child play out four stories with affective content per session and one of their own choosing, (2) imagination play intervention, where children were given

the same set of toys and standardized prompts, but were encouraged to play out four stories with high fantasy content, and (3) control condition, where children did puzzles and colored in coloring books. Each child participated in five, 30-minute sessions that were one-to-one with the examiner. The individual sessions were realized over the course of 3 to 5 weeks. The examiners used modeling and reinforcement to encourage play in both intervention groups. Effects were evaluated using three times of measurement and various measures of play assessment and affect assessments, using a multi-method approach including observational data, interviews, and self-reports. Results indicated that play only improved at follow-up in the imagination play group, but there were no differences on other measures of children's functioning (Moore & Russ, 2008). This training study failed to prove long-term effects of a pretend-play intervention on emotion regulation as rated by teachers. Also, the conducted tests were very closely related to the structure and contents of the interventions, leaving the impression as if children were taught to the test.

In an extensive review article Lillard et al. (2013) examine the evidence for the hypothesis that pretend-play is central and uniquely necessary for child development on various domains, such as several nonsocial cognitive abilities, different theory of mind domains, early language aspects, narrative, various social skills, and two aspects of self-regulation, executive functions and emotion regulation. For the purpose of this dissertation we will only focus on the connection between play and emotion regulation. Lillard et al. (2013) reported four studies on pretend-play and emotion regulation, three of those were experimental studies (Barnett, 1984; Barnett & Storm, 1981; Galyer & Evans, 2001) and only one was a training study (Moore & Russ, 2008). "Taken together these four studies leave open the case as to whether pretend-play assists emotion regulation..... and the single training study we found failed to find that pretend-play training increased emotion regulation as measured by teachers." (Lillard et al., 2013, p. 24). In summary, it is safe to say that the inconsistencies in the correlational studies cast doubt on whether there is a causal relationship between play and emotion regulation and the training study did not show that relationship either. "If this position were supported, then for any development pretend-play causes, strong, consistent, and unique correlations should be seen between pretend-play and the development." (ibid., p. 24). Lillard et al.'s (2013) review was strongly criticized by fellow researchers, Nicolopoulou and Ilgaz (2013) called their assessment overly negative and dismissive. In response to Lillard and colleagues review, Weisberg, Hirsh-Pasek, and Golinkoff (2013a) encouraged researchers to take a more holistic approach to the body of evidence on play and learning, instead of relying on fragmentary criticisms of individual studies. Harris and Jalloul (2013) reviewed the arguments of Lillard's review in an

attempt to reassess their negative conclusion, questioned the conceptual framework that was used, and critically noted “that studies emphasizing the frequency of pretend-play may not be able to tell us whether it serves a crucial role in healthy development.” (p. 29). Nonetheless, even Lillard and colleagues (2013) concluded that the causal account is possible, but further research is needed to examine this possibility.

2.4.4 Plea for Play-Based Fostering of Socioemotional Competences

“It seems to me that from the point of development, play is not the predominant form of activity, but is, in a certain sense, the leading source of development in preschool years.”

(Vygotsky, 1967, p. 6)

When trying to promote children’s development in early educational settings it is essential to follow and respect their scope of interest. In preschool, children’s scope of interest and only “task” is to play, it is their right that we should preserve and nurture, in counter reaction to the behavior-oriented learning curricula spreading in kindergartens and the alarming trend that imaginative play is disappearing from children’s lives (Brédikytė, 2011; Leong & Bodrova, 2012; Singer et al., 2009). To prevent that disappearance from happening, preschool development should be fostered thru guided pretend play, an activity that naturally occurs, develops and takes full effect in children of three to six years of age, providing appropriate child-orientation. Play is further child-oriented, because it is children’s first and most favorable activity, it taps into naturally occurring behavior, while providing important developmental support and at the same time it is the main form of learning in early childhood. However, we cannot expect for children to develop the necessary play skills on their own, because of the changes in childhood nowadays (Bodrova, 2008; Frost, 2007), preschool settings might be the only place left, where children have to opportunity to learn how to pretend-play (Hirsh-Pasek, Golinkoff, Berk, & Singer, 2008).

Learning how to play is threatened in our society by the overabundance of entertainment and media consumption, all leading to receptive activity and causing the need to actively support children’s play (Oerter, 2007). Supporting children’s play seems necessary, because it is the ‘leading source of development’, but preschool children are often stuck on primitive play levels and both quantity and quality of children’s play decline (Bodrova et al., 2013). Though, “With the main elements – imaginary situation, roles and rules – underdeveloped, this ‘immature’ play cannot serve as a source of child development or create ZPD...” (Bodrova, 2008, p. 364). Making it necessary, to scaffold children’s play abilities in the ZPD, in order to support the development of mature play forms and enable healthy development.

Now that it is established that children require active adult support to develop mature play competences, we can turn to Fler & Hammer (2013) who suggested that children's development of emotion awareness and regulation (which is an ability at the core of socioemotional competences) would benefit from an educational program featuring fairytales. Referring to Lindqvist's (1995) and Brédikytė and Hakkarainen's (2011) playworld approaches, neither of the two focuses on the explicit enhancement of emotion awareness and regulation thru guided pretend-play of classical fairytales, despite the abundance of positive connection between these abilities. Also, neither of the two playworld approaches collected experimental evidence of the interventions effects and no systematic and methodologically rigorous evaluation-designs were applied. This lack in scientific soundness is in line with the criticism by Lillard et al. (2013), stating that based on the inconclusive research available, we cannot conclude that pretend-play assists emotion awareness and regulation or promotes socioemotional competences and that this might be due to methodological research problems. These research problems must be avoided, in order to shed light on the potential relevance of pretend-play for child development. Research problems that would be relevant for evaluating a training study are the following, in accordance to Lillard et al. (2013):

- a) experimenters should be masked and not be allowed to conduct post- or follow-up tests with familiar children, as to avoid experimenter bias,
- b) children should be randomly assigned, as to avoid the influence of preexisting differences,
- c) active control groups are necessary, which are completely equal to the intervention condition, except for the pretense (the content and context must be the same, the intensity and degree of adult interaction must be held constant), in order to show that play itself is responsible for potential effects and that effects are not "due to a confounded variable such as an increased amount of adult attention." (Weisberg et al., 2013a, p. 35),
- d) experimental methods are always more favorable than correlational designs (Lillard et al., 2013).

In sum, there are instructional prevention programs that were evaluated, but they failed to include child-oriented means and fundamental modes of action, such as promoting emotion awareness. Then there are intervention approaches that aim to foster play competences, but they do not focus on fostering socioemotional competences and they lack scientific testing of their efficacy. Consequently, there remains a niche, needing to be filled. That niche is the development of an intervention approach that combines the fostering of socioemotional

competences, emotion awareness, and pretend-play. In an attempt to fill that niche and to provide evidence for the promoting effects that pretend-play can have on emotion awareness, emotion regulation and socioemotional competences, we first developed a holistic intervention approach, which we then evaluated using methodologically well designed and executed intervention studies and sound experiments to measure various outcomes, with the goal to proof the well-deserved place of pretend-play in early childhood education. After all, an effective way to prepare preschoolers for the academic and social challenges of school is through joint pretend-play with peers (Elias & Berk, 2002), which should therefore be considered as a child-appropriate intervention approach for preschool settings.

3 Conception of the Pretend-Play Intervention

As discussed earlier, findings from the literature and the empiric evidence of the positive relationship between pretend-play and emotion regulation are inconclusive, but highly promising. This promising outlook encouraged us to take a closer look into this relation and attempt to design a fairytale based pretend-play intervention, where we invited fixed groups of children into a ‘fairytale land’ twice a week, where we read and enacted classical fairytales (Seeger, Hermann, & Holodynski, 2016). The pretend-play intervention was hypothesized to foster role-play competences and thereby emotion awareness and regulation in preschool children, leading to positive changes in children’s socioemotional competences. The efficacy of the pretend-play intervention was investigated in several steps, we first designed an intervention approach, which we piloted (Pilot Study) and revised, then field tested using a pre-post-control-group design (Study 1) and after gaining positive results and fine-tuning a few aspects, we conducted a methodologically more rigorous evaluation using a pre-post-follow-up-design (Study 2) with an active and an untreated control group.

3.1 Elements from Preexisting Research and Intervention Programs

The conception of our intervention approach was started by going thru the existing intervention programs that claim to foster socioemotional competences in preschool children. While there were weak spots in all programs, they also exhibited several promising and well approved aspects, which we adopted for our intervention. The first aspect we adopted was the universal and preventative focus, meaning that we also designed our intervention to be universal, addressing a whole group or class of children, instead of only targeting children at risk, and our intervention was designed to be preventative, applying before children have developed a pathological condition (Hermann & Holodynski, 2014).

The second aspect we adopted from preexisting programs was to provide a structured manual. Such manuals are designed to ensure a consistent, standardized, qualitative implementation of the program by different teachers in different institutions. A third aspect we adopted from preexisting programs is the adult guidance. In regard to adult guidance we primarily adopted aspects from emotion coaching by Gottman and Gottman (2013), with the goal to teach children all aspects of an emotion episode, to discuss the cause (situation eliciting an emotion) of an emotion, and to provide affect-mirroring. By mirroring the affect, children are provided with repeated opportunities to match external expression signs to inner sensations, an ability which enables emotion awareness. “Coaching of the child’s emotion involves helping

the child verbally label the emotions being felt, ... teaching the child appropriate rules for expressing emotion, teaching the child strategies for dealing with the emotion..." (Gottman et al., 1997, pp. 48-49). Being able to label an emotion, knowing how to express an emotion and how to deal with an emotion are essential parts of reflective emotion regulation, which leads to better socioemotional competences.

Beyond the three aspects we adopted from preexisting programs, there are other aspects to be considered when designing an intervention approach. For instance, considering an underlying approach of development and learning, considering how intervention contents can be conveyed without being too language-heavy, considering which thematic framework to choose, considering which materials and props to use, considering how to efficiently lead a group of children, while providing enough flexibility to incorporate their own ideas. All those considerations that go beyond the three aspects we adopted from preexisting programs will be discussed in the following.

3.2 Vygotsky's Approach of Development and Learning

The underlying mode of fostering pretend-play competences and socioemotional competences in our intervention is derived from Vygotsky's (1978) ideas of early childhood education and his approach on development, specifically his idea of the 'Zone of Proximal Development' (ZPD). The ZPD is the distance between the actual developmental level as determined through independent problem solving abilities and the level of potential development as determined by problem solving with adult guidance or in collaboration with more capable peers (Vygotsky, 1978). The ZPD in play always manifests when an adult is involved in the play (Oerter, 2007) and children's greatest achievements are possible in play (Vygotsky, 1967). Consequently, in our intervention we aim to foster pretend-play and emotion awareness and regulation in the ZPD by means of adults being the competent play partners, providing guidance and support. In order to support children's development and guide them from assisted to independent performance, Bodrova and Leong (2007) propose teachers can use different tactics, two of which are relevant in this case; *using mediators* and *shared activities*.

Using mediators. "In Vygotsky's work, a *mediator* is something that stands as an intermediary between an environmental stimulus and an individual response to that stimulus." (Bodrova & Leong, 2007, p. 51). Mediators in that sense are called *mental tools* and are used to prompt a specific response and can assist different mental processes, such as perception, attention, memory, as well as certain social behavior. Abstract mediators can only be used by adults and they mostly do so automatically, for example when driving a familiar stick-shift, the

versed adult does not need to look at the numbers on the gear shift. Abstract mediators are difficult for young children, they need concrete and tangible mediators that are visible, because the use of mediators is not fully incorporated into their thought patterns yet (Bodrova & Leong, 2007).

Tangible mediators have two purposes as mental tools. First, they assist children in solving problems and enable them to do so independently in a situation that formerly required direct help from an adult. Second, they have long-term effects by restructuring children's minds, in such a form that they assist the process from lower to higher mental functions. By learning to use mediators, children become more and more capable of using the mental connection between the stimulus and the mental tool and use it as an auxiliary means to solve the problem systematically and independently, instead of impulsively. Overt mediators in play can help to relieve the working memory, because children do not have to mentally represent the playworld, instead their attention can be directed toward the play. Tangible, overt mediators should be concrete (Bodrova & Leong, 2007) and detachable from the adult to help create and maintain a playworld.

Therefore, to create a playworld in our intervention, we used abstract props to mark different locations in the pretend world, e.g., green cloths mark the forest where the Wolf lives in the Brothers Grimm's "The Wolf and the Seven Goats". Overt mediators should also be appropriate for the given situation, e.g., we used concrete props, such as white, felted ears to mark the little goats. Moreover, overt mediators should always be accompanied by verbal instructions, An example of how that was done in our intervention is: "Now we pretend that we are the little goats and we can tell by our white ears." Therefore, verbal instructions in the form of language is an important aspect of using mediators, for instance directed language can help us initiate play with others, while inward speech can help us to regulate our own behavior and thinking, and help us to remain in the playworld.

Using shared activities. The second tactic that can help move from assisted to independent performance in the ZPD in play is the shared activity. Shared activity means that all mental functions exist at first between two people, before they are internalized. "Thus, shared activity is a means of providing the assistance children need at the higher levels of the ZPD. To promote learning, teachers must create different types of assistance and consequently different types of shared activity." (Bodrova & Leong, 2007, p. 79). Shared activity is important for other-regulation, especially in an adult-child interaction, where the adult functions as a precursor for the child's emotion awareness and regulation, slowly fading it out over time, and promoting self-regulation (ibid.). As a shared activity, play promotes the development of self-

regulation, “because of the inherent relationship that exists between roles children play and rules they need to follow when playing these roles.” (Bodrova, 2008, p. 261). Hence, thru the shared activity in play, children also practice other-regulation, in such that they monitor their play partners, making sure that they abide by the rules, and thru that gain awareness of the rules, consequently enabling them to apply those rules to their own behavior (ibid.).

Translating the tactics of using mediators and shared activities to our pretend-play intervention, the adults conducting the intervention had the task to engage in shared activities, by initially creating the playworld, providing the story (e.g., “The Wolf and the Seven Goats”), planning the surrounding (e.g., where is the forest, where the house of the goats, and where is the well that the wolf drowns in) and providing the mediators (e.g., white felted ears for the goats, blue cloth for the well) to initiate and facilitate the play process. Shared activities were realized in our intervention, because the teacher is the *Play Leader* (PL), directly interacting with the children, planning and organizing the play, by asking pointed questions, using metalanguage, gestures and facial expressions, and acting as teacher-in-role (assuming a role and interacting with children from the perspective of the role), all in order to facilitate an expedient play process for the children. By using these tactics, as proposed by Bodrova and Leong (2007), we created play scenarios that initially children would not have been able to create on their own, but with interacting in the ZPD and gradually conveying the planning of the play process to the children and transferring them the necessary tools, they grow more and more independent of the adults guidance, and we aimed to enable them to pretend-play independently in their own playworlds outside the intervention setting.

3.3 Fairytales

The thematic framework we choose to embed our pretend-play intervention in are fairytales. As mentioned above, especially fairytales are suitable to promote emotion awareness and regulation in a play intervention, and such a play intervention would need to involve repeated telling, acting, and role-playing of classical fairytales and through repetition would create playworlds (Baumer, et al., 2005; Bettelheim, 2015; Fleeer & Hammer, 2013; Saltz et al., 1977). Fairytales address existential themes and fundamental conflicts that are relevant to children’s conflicts, problems, fears, and desires, such as being separated from the parents, the loss of home, to be on one’s own and assuming responsibility, the uncertainty which stranger is trustworthy, etc., but at the same time providing solutions. Fairytales provide suggestions for how to bring order to the inner and outer world (Bettelheim, 2015; Lindqvist, 1996), because life can be confusing and overwhelming, therefore, it is important to help children understand

themselves in a complex world, to help them find meaning in the chaos of their experiences and emotions.

In connection to the existential topics, fairytales contain prototypical emotion episodes, such as (fearing) the death of one or both parents, the need to be loved, the fear of being useless, the fear of evil, love of life and fear of death, relief at a happy ending etc. However, fairytales manage to present these existential dilemmas in a brief and pointed fashion. Thus, fairytales simplify every situation (they only mention important details, characters are never unique, but always generic), so that the child can deal with the problem in its essential form, instead of being confused by a long, complex story line (*ibid.*). In fairytales good and bad coexist in opposition, both personified (El'koninova, 2001b), just like good and bad exist in real life and within every person. But in fairytales, there is no ambivalence, characters are either good or bad, which facilitates the recognition of morally correct behavior for children (Bettelheim, 2015) and at the same time provides an early opportunity to grapple with right and wrong, leading to an alert mind and consciousness (Schieder, 1996).

As mentioned above, fairytales address existential themes, but in fairytales it is easier for children to deal with these existential topics, because a fairytale does not reflect reality directly (El'koninova, 2001b), it is an imaginary and predictable genre that is emotionally charged and contained at the same time (Fleer & Hammer, 2013, p. 243). This imaginary genre in combination with adult guided reenactment, can help children become aware of their emotions and subsequently promote emotion regulation (*ibid.*). Emotion regulation can especially be promoted by repeating the same fairytale several times, because repetition creates an emotional anticipation of the enfolding emotion episodes in the plot (El'koninova, 2001a).

The existence-themes in fairytales can seem scary, but it is a common misconception that these themes frighten children and should hence not be read to them, because they confront them with fear. Fear, however, is a very human emotion, one that we are born with, and it is not the fairytale that frightens the children. Preexisting fears can be expressed in reenacted fairytales and help children apprehend their emotions in the pictures of the story and express them in a regulated fashion (Schieder, 1996). Fear in its archetype in fairytales is often represented by the wolf, for example, by 'giving the feeling a face' it becomes possible to deal with children's vague fear in a visualized way (*ibid.*). Besides fear, other emotionally intense situations can be created and social conditions formed by telling and reenacting fairytales, which together give rise to emotional imagination (Zaporozhets as cited by Fleer, Hammer, & March, 2014) and promote emotional development of preschool children (Fleer et al., 2014). Creating emotionally intense situations is another advantage of using fairytales, because one

does not have to wait for “emotionally charged situations as they arise in early childhood setting as opportunities to support children’s emotion regulation” (Fleer et al., 2014, p. 63), like in the case of emotion coaching (Gottman & Gottman, 2013). Instead, Fleer et al. (2014) propose to systematically use fairytales for creating optimal conditions in which children’s development of emotions can be supported.

Through reliving well-known fairytales, emotional imagination is directly experienced in the reenactment, and conscious awareness of emotions as feeling states as children explicitly show in the performance expression of emotions. For example, when children are role-playing being Little Red Riding Hood, they must show the expression of being frightened of the wolf, and they must consciously consider this emotion and its expression, to successfully and convincingly role-play the fairytale character. (Fleer & Hammer, 2013, p. 252).

The development of emotions is further promoted thru the emotionally charged plot of fairytales, providing the opportunity to deal with prototypical emotions, while at the same time being remoter from reality and therefore less threatening (Saltz et al., 1977) and creating a distance to children’s reality of life. This distance to real life is partly maintained by the adult reading the fairytale, who has the task to help the child be drawn into the imaginary world, by dramatized reading and vivifying the stories characters, and at the same time help the child to stay outside that imaginary world, by pointing out that it is just a story that has nothing to do with reality (El’koninova, 2001a). This dynamic relation between real and imaginary worlds is called “flickering” (Fleer & Hammer, 2013). Flickering is characterized by the fact that by immersing themselves in the plot, children enter into the fairytale world, when it is too frightening they can cease participation and subside the empathizing (e.g., Fleer & Hammer, 2013; El’koninova, 2001a). Flickering means that when reenacting fairytales, emotional involvement can be controlled by the children themselves and emotional episodes can volitionally be produced and ended, which provides controlled opportunities to experiment with emotions and emotion-regulation can be build (Fleer & Hammer, 2013). In other words,

... it is possible to see that through fairytale, children must hold on to two things simultaneously if they wish to self-regulate their emotions – the children must be inside of the plot living the story, and outside of the plot as a real person, if the children do not wish to feel fear... .” (ibid., p. 252)

In summary, fairytales address existential themes relevant to children, but on a pretense level, making the emotional involvement controllable. The involvement and immersion in the emotionally charged plot is facilitated by the certainty that no matter what hardships the hero encounters and how awful the events are, it always ends well, providing models of morality.

Moral concepts, cultural worldviews, and conscientiousness can be developed in the play-frameworks that are provided by fairytales (El'koninova, 2001b). The fairytale symbolically states: "If you decide to act correctly (morally, nobly, with love), no matter what you undertake, you will succeed." (ibid., p. 71).

For our pretend-play intervention, we selected fairytales in accordance to certain criteria.

- (1) The first criterion was that the fairytales had to address existential topics that are relevant to children at preschool age, such as overcoming the fear of a threat, the wish of making friends, finding strength in companionship (Oerter, 2007).
- (2) The second criterion was that the fairytales contain prototypical emotion episodes in connection to those existential topics, such as joy and relief over fighting a threat successfully, the fear of evil, sadness over a loss, and the aggressiveness of evil characters.
- (3) The third criterion was that the fairytales had a simple plot, with unambiguous roles and a course of events that is easy to follow, as to grant children understand the fairytale right away and have an easy time enacting it.
- (4) The fourth criterion was that the fairytales had no gender stereotypes, such as Grimm's tales of 'Cinderella', 'Sleeping Beauty', or 'Rapunzel' (Seeger, Hermann, Holodynski, 2016).

In order to accommodate all four criterions, we chose fairytales where animals are the main characters of the story. Animal characters are very popular amongst preschoolers, they are far from reality and further increase the distance to children's real lives, and therefore facilitate the enactment of aversive emotions. Therefore, animals are the main characters in the three classical fairytales we chose for our play intervention, "The Wolf and the Seven Goats" by Grimm & Grimm (1857) was read and enacted in the Pilot Study, for Study 1 the "Town Musicians of Bremen", also by the Brothers Grimm, was added and, for Study 2 "The Three Little Pigs" by Joseph Jacobs (1890) was further added. In all three fairytales the language and the plot were simplified in some parts, but the characters and sequence of events remained intact (Brown & Pleydell, 1999).

3.4 Gaining Emotion Awareness in the Pretend-Play of Fairytales

This chapter will try and give an answer to the question on how the role-play of fairytales can be used to teach children emotional awareness, the prerequisite for reflective emotion regulation. As previously explained, in order to regulate emotions volitionally, the protagonist has to distance himself psychologically from the directional sensation (action readiness) of the emotion and interpret it as a classifiable emotion, by matching external expression signs to inner sensations. Achieving this matching is a major developmental challenge and especially difficult, since emotions are primarily perceivable as inner sensations and externally only observable in expression signs, but only with the ability to interpret the two as facets as belonging to the same emotion is the child able to volitionally regulate emotions. Reflective emotion regulation requires for the protagonist to distance himself from the directional sensation (emotion urge) and classify it as a categorial sensation, i.e. turning the non-reflective into a reflective emotion (as described in chap. 2.2.2 *Reflective emotion regulation*), which in our opinion can be fostered by the guided role-play of fairytales (Holodynski, 2006). Holodynski, Seeger, et al. (2013, p. 49) conclude:

Three- to 6-year-old children spend a lot of time engaging in pretend play. Its significance for learning reflective emotion regulation is that they use language (and initially also substitute objects) to create fictitious frames of reference toward which they then successfully direct their current actions. The extensive pretend-play in this age group can also be interpreted as a “school” of psychological distancing in which children learn to interpret current situations within a completely different frame of reference, thus enabling them to distance themselves from the immediate situational pressure to act.

As mentioned before, fairytales provide emotional plots, which can be used to artificially create emotion episodes, which in play can be dramatized volitionally with the help of a more competent play mate (in our case a scaffolding adult). When applying guided role-play of fairytales to the previously introduced model of reflective emotion regulation (chap. 2.2.2), the following aspects apply (Figure 3).

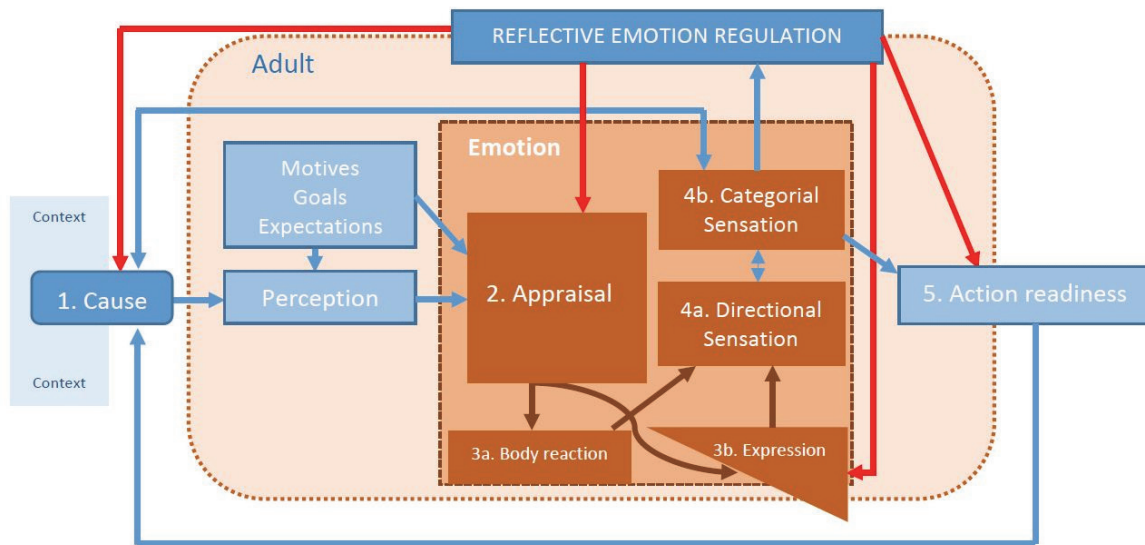


Figure 3. Sequence of reflective emotion regulation (based on Holodynski, 2006; Lambie, 2009).

The chosen character of the fairytale defines the guiding motives, goals and expectations, while the plot of the story and the play activities define the (1) cause and the (2) appraisal of the emotion-eliciting cause for each role. “Thus, engaging in self-regulated behaviors in play becomes possible because an inherent relationship exists between the roles children play and the rules they need to follow when playing these roles.” (Bodrova et al., 2013, p. 113). Following the rules of the role includes dramatizing the prototypical emotions that the character experiences in the fairytale, which contains the reenactment of the respective (3b) expression signs, causing remotely real (3a) body reactions, and eliciting (4a) cause-directed sensations. These emotion sensations are intense lived-through experiences, directly experiencing another person’s mental state, in pretend-play the mental state of the role (Stanslavski as cited by Baumer et al., 2005). “Stanslavski argued that inner emotions and feelings are aroused by physical action, and that by imitating another’s physical actions we are able to experience the emotions of the other...” (Baumer et al., 2005, p. 586).

In our guided pretend-play intervention, the experience of the role’s emotions was meta-communicatively scaffolded by the adult play leader (PL), which means that (4b) sensations were categorized beforehand, enabling an awareness of the elicited emotion. As mentioned before, the adult can make the experienced emotions conscious as feeling states, because the child simultaneously experiences contradicting emotions in play, which Vygotsky called *double expression of feelings* (Fleer & Hammer, 2013). In order to manage the double expression of feeling, children need numerous repetitions of the same plot, because only thru repetition become children more and more capable of distancing themselves from their dominant impulses and of regulating their own emotions for the sake of the story plot and the enactment thereof

(Bodrova et al., 2013; Carlson & Beck, 2009). The repeated enactment of the plot and the respective emotions provides numerous opportunities to practice psychological distancing, which enables emotion awareness, an indispensable presupposition for reflective emotion regulation (Holodynski, Seeger, et al., 2013).

Emotion regulation is further supported in pretend play, because play is preschoolers' first activity in which they are not driven by the need for instant gratification, which is prevalent at that age, but instead by the need to suppress their emotion urges and immediate impulses (Bodrova et al., 2013). Suppressing immediate impulses is also required when playing a role, because in order to uphold a play sequence children must act deliberately and inhibit any behavior that is not part of their role and they must volitionally follow the rules that dictate which actions are consistent with their respective role (Bodrova et al., 2013). Fleer et al., (2014) suggest that the role-play of fairytales supports children's emotional development. Especially fairytales are suitable to support the development of reflective emotion regulation, because experiencing and reenacting fairytales in a group setting, with adult support, increases the awareness of emotions for children (Fleer & Hammer, 2013). In turn, this risen awareness could lead to enhanced self-regulatory competences (ibid.). More systematic research is needed, to further proof how pretend-play of fairytales can contribute to children's awareness and regulation of emotions.

Table 1 gives an overview of typical childhood emotions that require reflective emotion regulation, the full spectrum of emotions that children experience in preschool is listed there. For the reconstruction of emotion episodes in the pretend-play intervention we drew on this spectrum and focused especially on the central negative emotions *fear* and *anger*, and the central positive emotions *joy* and *triumph*. These four emotions were used in different variations throughout the intervention. For instance, different anger-variations were drawn from the family of anger-related emotions and enacted in the intervention. Furthermore, the respective prototypical expression signs listed for each emotion in Table 1 were used for the reconstruction of the emotion episode, such as body reaction and expression in Figure 3. The prototypical expression signs were also used in the reading manuscripts (chap. 3.4.2) of the fairytales used in the intervention program.

Table 1. *Childhood emotions.* Classification of children's emotions, with corresponding appraisal and prototypical expression signs (based on Barrett (1998), Holodyski (2009a), Holodyski & Oerter (2012), and Magai & McFadden (1995)).

Emotion	Appraisal	Prototypical expression signs
Family of anger-related emotions		
Distress (starting at 0 months)	A need is not satisfied	Crying
Frustration (starting at 4 months)	A desired and expected effect does not occur	Contracting brows, foot stamping, swearing
Anger (starting at 7 months)	Intentional obstruction of achieving goal by another person	Contracting brows, baring teeth, threatening gesture, swearing, aggression against opponent
Jealousy (starting at 9 months)	Another person receives attention of reference person, whose attention oneself is seeking, but not getting	Edging out the opponent and imposing on reference person
Defiance (starting at 15 months)	Instead of supporting the accomplishment of one's goal, the reference person intentionally obstructs it or insists that one does something against one's will (goal obstruction by reference person)	Crying, refusing the request, aggression against reference person
Envy	Another person has something that one wants, but is not allowed to take or able to get	Anger-expression towards opponent and taking the desired object; grief-expression towards reference person
Indignation (starting at 36 months)	Another person obstructs a desired goal by violating norms (norm-contrary goal obstruction by another person)	Anger-expression with reference to the norm
Family of disgust-related emotions		
Disgust (starting at 0 months)	Perception of harmful substance nearby	Wrinkling nose, tongue sticking out, gagging, averting
Aversion	Perception of harmful person nearby	Wrinkling nose, averting
Boredom	Current situation does not satisfy any needs, but there are no alternatives	Looking and walking around aimlessly, drumming one's fingers on the table
Family of interest-related emotions		
Excitement/ interest (starting at 0 months)	Novelty, deviation, expectation	Turning towards novelty, open mouth
Surprise (starting at 9 months)	An anticipated event does not occur, or an unexpected event occurs, without being relevant for one's motives (events against expectations)	Open mouth, raised brows, eyes wide open
Family of joy-related emotions		
Pleasure (starting at 0 months)	Delightful stimulation	Smiling
Joy of effect (starting at 4 months)	A desired, but not certainly expected event occurs	Smiling, exuberant movements, high pitched voice, sing-song

Amusement (starting at 6 months)	A familiar contingency occurs in an unexpected context	Laughing
Affection	Reunion with a loved one	Hugging, kissing, stroking or other forms of positive body contact
Relief	Apprehensions does not happen	Strong exhalation, sighing
Family of grief-related emotions		
Grief (starting at 9 months)	A loved one leaves or a precious object gets lost	Saggy corners of the mouth, raised inner brows, weak intonation, pout
Family of fear-related emotions		
Shock/ fright	A sudden threat or over-stimulation	Startle, frozen body
Fear (starting at 9 months)	Perception of danger	Eyes wide open, motionless brows, hand to mouth, flight behavior
Family of social emotions		
Compassion (starting at 18 months)	Another person gets hurt	Facial expression of grief und giving comfort, helping behavior
Embarrassment (starting at 18 months)	Perception that one is being intensely eyed by someone else	Fake smile, fluctuating gaze, fiddling with fingers, scratching, restless touching one's own body, blushing
Pride (starting at 24 months)	Perception of own efficiency regarding a standard of value in the (imagined) presence of other people	Smiling, erected head and body, triumphant gestures, triumphant outcry
Shame (starting at 30 months)	Perception of own shortcomings regarding a standard of value in the (imagined) presence of other people	Pressed lips, avoiding gaze, collapsed body, lowered head, blushing
Guilt (starting at 36 months)	Realization of own wrong doing, especially harming other(s)	Attempting redemption, verbally apologizing, submissive posture
Dominance	Oneself is controlling another person's behavior, in order to increase own self-esteem	Elevated chin, sizing up of opponent, erected body
Sense of belonging	Experiencing that one is an accepted member of a (admired) group	Seeking physical proximity to group, belonging is signaled by group symbol, (joint) usage or wearing of group symbol
Contempt	Perception of being superior to someone else, who does not satisfy one's values	Laughing at reference person, teasing, ostracizing, treating as being not present

3.5 Goals of the Intervention

“Rich opportunities for make-believe, sensitively nurtured by... teachers, are among the best ways to ensure that young children acquire the self-regulatory skills essential for succeeding in school, academically and socially.” (Berk et al., 2006., p. 92). Therefore, actively supporting children in developing play skills was the superior goal of the intervention.

The particular goals of the pretend-play intervention were threefold and planned to occur in stages. First, we aimed to foster children's pretend-play competences, by equipping them

with the necessary Tools of the Play. Tools of the Play are all skills needed to independently and elaborately pretend-play (they will be introduced in the following section). Elaborate pretend-play is also called mature play by several researchers, it is the prerequisite for other developmental benefits of play, as defined in the next two goals. The second goal was to let emotions come alive in play in a way that children could cope with and enjoy. Third, as discussed before, we aimed to foster psychological distancing and emotional awareness in children, as prerequisites of emotion regulation. Mature pretend-play fosters psychological distancing, because the elicited emotions in play need to be regulated for the sake of the story plot and the enactment thereof.

3.6 Intervention Mediators

In the previous chapters (chapters 3.1 – 3.5) the theoretic framework, the aspects which support our proposition, and the goals of our pretend-play intervention were introduced; guided role-play of fairytales might help enhance and foster children's roleplay competences, their ability of becoming aware of their emotions and to regulate them, and thru that improve their socioemotional competences in general. However, in order to foster development of these competences in the ZPD, certain mediators and tools have to be used. In case of our intervention we applied mental and overt mediators (see chap. 3.2), supported children's development and guided them from assisted to independent performance. By applying the following mediators we wanted to capacitate children to engage in elaborate pretend-play and to reach their next level of competence in the ZPD.

In this sense we share Brèdikytè's (2011) mindset, who believes "that the best ways to acquire and develop play skills are: modeling of higher forms of play (that of elder children or students), providing the opportunity for joint play activities, and providing all necessary support for successful play participation." (p. 85). Today, this support in learning how to play is needed by most children (Bodrova, 2008), therefore, in our pretend-play intervention we wanted to provide all necessary support and multiple opportunities for children to play with peers and a more competent play partner – the scaffolding adult, who employed the essential mediators in the ZPD. In our play intervention, an adult provided the mediators and the support through his or her role as a Play Leader (PL). The tasks of the PL were to apply these mediators by reading the fairytales, thereby providing the plots and play-frames, guiding and managing the play-group, by using group management strategies, introducing and enforcing rituals and rules to maintain a productive and appreciative atmosphere, all while teaching the *Tools of the Play*, the fundamental tools for elaborate, mature play.

3.6.1 Tools of the Play

The central mediator in our intervention was the imparting of the Tools of the Play. The child needs to be able to employ certain Tools of the Play, in order to move to mature forms of play, which entails creating and upholding a playworld (with a fictive spatial- and timeframe) and at the same time acting as a character in this playworld (with fictive play-actions and emotions). These Tools of the Play are flexibly available to children who can autonomously and successfully pretend-play (Seeger et al., 2016), hence, they are a sign of mature play. The application of these tools not only promotes pretend play, but research shows that it also supports the cognitive, linguistic, and emotional competences of children (Bodrova et al., 2013; Lillard et al., 2013; Weisberg, Zosh, Hirsh-Pasek, & Golinkoff, 2013c). Tools of the play can be found all over the play literature (Andersen, 2005; Bredikyte, 2011; Brown & Pleydell, 1999; El'konin, 2010; Lindqvist, 1996, Singer & Singer, 1990), but the tools have never been brought together in such a completeness as by Seeger and colleagues (2016). A comprehensive and unprecedented list of the Tools of the Play will be presented in the following.

- (1) *Understanding of playworld.* Using a playworld means developing a shared fictive world from a fairytale or real world story and understanding that 'sujet' as a play frame, which provides the content and context for the characters and locates individual play-actions (Bredikyte, 2011; Brown & Pleydell, 1999; El'konin, 2010; Lindqvist, 1996). In the playworld play-actions and characters of a fairytale or another story are brought to life. According to El'konin (2010), 'sujets' are at the core of role-play, because the crucial element of pretend-play is the imaginary situation. This imaginary situation, with its characters, play-actions, locations, and connections form the play's action-frame. Only the action-frame of the particular playworld turns the individual actions of the engaged roles into comprehensible and meaningful actions (Seeger et al., 2016). In an elaborated pretend play, the protagonists need knowledge of the particular playworld, e.g., knowing which script to follow and understanding that everyone involved is acting out roles and "use[ing] symbolic content in their play." (Singer & Singer, 1990, p. 72). Playworlds can be derived from fairytales, movies, picture books, or everyday life situations. An example for a playworld from our pretend-play intervention would be "The Wolf and the Seven Goats" by the Brothers Grimm. Without knowledge of this playworld, the action of a little goat hiding in a clock case would be difficult to comprehend (Seeger et al., 2016).
- (2) *Understanding of roles,* e.g., taking on a role and acting from the motive perspective of the chosen character. This tool is realized thru choosing a role from the playworld,

taking on the motive-perspective of that role and acting from that perspective in terms of ascribed actions. By taking on a role, the child acts from the vantage point of that character, identifying with the other, and representing another person's actions (Bretherton, 1984). "Preschool children need the perceptual role concept to follow the action rules." (Andersen, 2005, p. 406). Taking on a role includes adjusting voice and posture and visually marking the role with specific props, as to relieve the working memory during play. This way, others can identify each character by looking at their role-prop instead of having to remember what was said at the beginning of the play. Role-props can also be used to signal whether one is still in play or not, as it can be removed or put on to move back and forth between character and real person (Brown & Pleydell, 1999).

When taking on a role, children create the "first distance to themselves because by imagining, for example, being a mother or a doctor and acting like them, they take the perspectives of adults on actions that they are used to performing from their own perspectives as young children." (Andersen, 2005, p. 406). A balanced course of play requires to attune and coordinate the involved characters and the character's motives (Bodrova et al., 2013; El'konin, 2010). As early as the age of two, children start to show first signs of perspective taking, also called theory of mind. At the age of four, they have an understanding of other people's thoughts and emotions, i.e. they possess a theory of mind and emotion, which takes full effect at around five years and is a prerequisite for pretend play, giving it flexibility (Hauser, 2013). A sign of mature play is taking on and sustaining a specific role by consistently engaging in pretend-play actions, speech, and interactions that fit to that particular character (Bodrova et al., 2013).

Children capable of mature play can assign and reverse roles at their convenience and produce suitable play-actions from the motive-perspective of the chosen role, also the roles become richer and the relationships between them more complex (Bodrova et al., 2013; Seeger et al., 2016; Singer & Singer, 1990). An example for a taking on a role in "The Wolf and the Seven Goats" would be the character of the wolf, his role-prop is a shaggy gray piece of fake-fur, his voice is low and dark, his motive is to satisfy his nutritional requirements, which he reaches by tricking the goats (whose role props are white felted ears and a white chiffon cloth as a tail) into opening the door for him.

- (3) *Understanding of plots.* A plot comprises specific action-frameworks for each character within a particular playworld and describes when, where and why the characters encounter each other and interact in that specific play sequence. Each playworld with

its range of characters consist of several plots, also called scripts or sequences, each plot contains certain tasks or problems, which the respective role has to deal with and sometimes a plot demands assigning new roles, new play-locations/settings and/or play-actions. More precisely, a plot is defined through its relations between cause, emotion and action from the motive perspective of the respective character, hence each plot encompasses all facets of an emotion episode. Since each plot always describes an emotion episode, only childhood emotions (see Table 1) are selected for the enactment.

The comprehension of the plot is crucial, because pretend-play cannot exist without a plot, the plot provides the plan of action (Lindqvist, 1996). Antagonistic roles and intentions facilitate the enactment and dramatization of emotions in play (Seeger et al., 2016). In mature play, children can use plots, which chronically organize sequences of events. At the ages of four and five, children's play plots become more elaborate, they perform conjoint enactments, with more complex time structures, play-actions and antagonistic roles (Hauser, 2013). It is characteristic for mature play to produce high-quality play scenarios that integrate many themes (Bodrova et al., 2013). An example of a plot with antagonistic intentions from "The Wolf and the Seven Goats" would be the sequence, when the wolf knocks on the door of the goat house for the first time, with the intention to eat the goats and the goats' reaction. The little goats are scared upon the wolf's rough voice (the role requirement would be to dramatize fear) and refuse to open the door, whereupon the wolf is frustrated (the role requirement would be to dramatize anger and frustration) and leaves.

- (4) *Substitution of objects*. There exist several ways to substitute objects. Real objects are used with a transformed meaning (Andersen, 2005), or random objects at hand are used to substitute for the real ones (Singer & Singer, 1990), or objects that are not present are mentally symbolized (pretending to drive a school bus, without a bus present), sometimes supported by onomatopoeias, such as 'Brummm.' (Hauser, 2013). In order to replace objects with something else mentally, children need the cognitive ability to uphold the representation of such objects mentally, even when they are not perceivable at the moment (Hauser, 2013). The ability to pretend-play develops from attributing living characteristics to inert objects, such as giving the teddy bear a voice, to substituting a completely new identity for a real object, such as pretending a block is a chocolate bar (Carlson & Beck, 2009). Bretherton (1984) explained "that substitute objects serve as "pivots" whose function, in symbolic terms, is to sever the meaning of an object from the real object." (p. 19). Object substitution "implies that meaning has

come to dominate over appearances.” (Bretherton, 1984, p. 19), which requires considerable cognitive ability on the part of a child, because it has to imagine something in contradiction to its appearance and act in accordance to the imagination instead of the appearance (Oerter, 2007).

Thru object substitution, children realize that symbols (including words and gestures) are distinct from the objects and events to which they refer. This frees the child to use mental symbols (especially language) flexibly, as powerful tools for self-guidance—for overcoming impulse and managing their own actions (Berk & Meyers, 2013). Younger or immature players need more substitutes that are rather similar to the real object, or they handle the objects in accordance to their real functions (Andersen, 2005). In mature play, children can substitute objects that bear little similarity to the objects they represent, only focusing on the fact that the object-substitute can in some way perform the same function as the object they symbolize (Bodrova et al., 2013). In mature play, (random) objects can be used to mark locations and roles in a playworld and to symbolize objects of the play-action.

“As play continues to advance from less mature to more mature, these object-substitutes eventually become unnecessary because most of the substitution takes place as the child uses gestures or words to invoke imaginary objects.” (ibid., 2013, p. 115). This can be seen in some children, who are able to mime empty-handedly, without the support of the perceptual-tactile cues of a real object, because for them the gestures and language are enough to build an imaginary world that is more or less independent of their direct physical surroundings. Miming, for example, appears when children’s gestures depict the object, such as holding an imaginary plate and inventing the presence of imaginary food and picking it up from the plate, holding it to the mouth, whereas the script (indulging on a celebratory meal) is verbal, commenting on the ‘delicious meal’, thus verbally inventing it (Bretherton, 1984). An example of an object substitution in “The Wolf and the Seven Goats” would be a child’s wooden chair functioning as the door to the goat house, a table covered in black cloth functioning as a clock case, or a piece of green fabric symbolizing the forest, combined with verbally designating the new meaning of the object.

- (5) *Substitution of actions*. This means to perform play-actions, which are abbreviated, symbolic, exaggerated, holistic displays of everyday life actions, which are always subordinated to the particular playworld and the involved characters (El’konin, 2010). Play-actions are quite unique, because their motoric execution is independent of the

physical law of the instrumental action. The instrumental action is only symbolized in an abbreviated manner in the play-action (Seeger et al., 2016).

In the development of play actions, the child first exhibits individual actions, followed by action schemes and finally the combination of various actions (Oerter, 2007). Hence, play-actions become more and more abbreviated and conditional, the more mature role-play competences become. “Mature players usually go beyond simple reciprocal actions such as feeding-eating or buying-selling, but they also engage in these actions in a manner they associate with a particular role in a given scenario.” (Bodrova et al., 2013, p. 116).

In mature play, children spend more time planning their play and pay less attention to props and details when acting it out, because they can use symbolic gestures (ibid.). Specifically, rather general and abbreviated play-actions reveal a system of relationships in the play-activity that is being displayed (El’konin, 2010). An example of play-actions in “The Wolf and the Seven Goats” would be the mother goat cutting open the wolf’s stomach to free the little goats, which in play is symbolized by clipping-movements with two fingers across the wolf’s torso.

(6) *Substitution of emotions*. This means a volitionally dramatizing of prototypical emotional expressions. This tool requires the knowledge of prototypical expression signs of single emotions and the ability to display them volitionally in order to engage in pretend play. This pretending of an emotion enables the display and development of (antagonistic) roles in play (Seeger et al., 2016), which requires knowing the relation to the complementary/antagonistic role (Singer & Singer, 1990). In pretend-play children frequently display emotions such as joy, fear, grief or enthusiasm.

When play scenarios are not supported by an adult, young children often only dramatize positive emotions, while negative emotions are often controlled by meta-communication, e.g., children tell each other what would be happening in play with phrases like “Let’s pretend the evil wolf was eating the goats right now.” instead of reenacting it. However, mature players know prototypical expression signs of basic emotions and are able to enact them by volitionally modulating facial expressions, voice, and posture (Seeger et al., 2016).

Dramatizing emotions in play provides children with various opportunities to learn about prototypical expressions, by reading them in their playmates faces, which promotes emotional perspective taking (Fleer & Hammer, 2013). An example of dramatizing emotions in “The Wolf and the Seven Goats” would be the scary wolf, with

the role requirement of displaying aggression, indicated by a deep snarly voice, furled eyebrows, bare teeth, and eyes narrowed to a slit. The evil wolf scares the little goats, which requires the characters of the goats to show signs of fear, displayable by a low, weak voice, wide-open eyes, pulled up eyebrows, hunched shoulders, and huddled posture.

- (7) *Production of role-specific speech.* Role-specific speech includes the usage of role-specific vocabulary, phrases, and speech register. In mature play, children adapt the vocabulary, intonation and emotional state of a particular character, which can be realized thru the volitional modulation of speech- and motor activity (Bodrova et al., 2013). An example of role-specific speech from “The Wolf and the Seven Goats” would be the goats reacting to the wolf knocking on the door: “We will not open the door, you are not our mother. She has a soft, pleasant voice, but your voice is rough, you are the wolf.” or “We will not open the door, our mother has not black feet like you, you are the wolf.” Children in the goat role would adjust their voice to a higher pitch, shaking their heads, hunched shoulders, and repeating these catchphrases multiple times, embodying the characteristics of their role.
- (8) *Using meta-communicative speech.* In pretend-play children plan, negotiate, and coordinate their enactment (Bretherton, 1984). Metacommunication enables children in joint play to negotiate the performance, transform and coordinate meanings, and distinguish imagination from reality, providing a frame for play actions and marking the play-frame, the line between actions within play and out of play (Andersen, 2005; Griffin, 1984). Metacommunication is mostly indicated by the subjunctive and phrases such as “let’s say,” “pretend that,” “let’s play that.” Often they end with a request for confirmation, such as “OK?” (Griffin, 1984). An example from our intervention would be phrases such as “Let’s pretend you were the wolf with the gray fur, OK?”.

Metacommunication can be used to transform meanings of things, persons, actions, and situations (Andersen, 2005), and they can step out of the play and communicate entirely out-of-frame and speak about the next steps in the plot, agreeing on the next play-actions, establishing events that would have already happened (Griffin, 1984). Consequently, metacommunication can be used to agree on a playworld, to plan and arrange play-actions and -locations, assign roles, and communicate and coordinate with play partners before, during, and outside the plot (Andresen, 2005; Griffin, 1984; Seeger et al., 2016). Being able to use overt metacommunication is certainly a sign for elaborate play, since it requires the coordination of own event schemata or scripts with those of

other people's (Bretherton, 1984). And since this requires the representation and coordination of all taken roles of the playworld, it can often only be mastered by competent players, or like in our intervention with the help a scaffolding adult (ibid.). An example of metacommunication in "The Wolf and the Seven Goats" would be to use formulations like "Let's say you are the wolf and you had already eaten the kids and now the mother would come home and pretend to be very sad."

In mature play, all of these tools are intertwined. When observing children's pretend-play it becomes obvious which of the above listed tools they already comprehend and use independently, and where they require help of a scaffolding adult. The more tools children have flexibly available and are able to interconnect them, the more mature is their play, the better they can uphold a fictive action-frame, including the respective play-actions, liberating and enabling them to act independently within the playworld (Seeger et al., 2016), which is why imparting of the Tools of the Play was a central mediator in our intervention approach.

3.6.2 Dramatized Reading of Fairytales

Another mediator used to impart play competences to children in our pretend-play intervention was dramatized reading, which is a mode where the textual content of the fairytale is not only conveyed verbally, but visually supported by gestures and emotion expressions displayed by the storyteller. Dramatized reading introduces certain Tools of the Play while reading. In order to acquaint the children to the dramatized reading and to introduce the Tools of the Play gradually at fixed points of the story, we composed imaginary tales of dwarfs. The dwarf-tales served as an introduction to listening to and enacting a fairytale, starting with tools in a simple form, such as (1) *creating a playword*, in form of a little dwarf village in a magic forest, (2) *taking on a role*, in the beginning all children were assigned the role of the dwarfs, sparing them the complementary roles, and (5) *performing play-actions*, such as walking thru the imaginary forest and collecting gems from a cave. Gradually, the stories introduced more tools and the tools grew more complex, such as (6) *volitionally dramatizing prototypical expressions of emotions*, for example that the dwarfs were scared of the dark cave, and (7) *production of role-specific speech*, for instance a song that was supposed to help the dwarfs conquer their fear before going into the cave, giving the children a catchphrase that they could repeat.

When executing dramatized reading, the reader adjusts his facial expressions, body posture, intonation, and gestures in accordance to the events of the story, re-creating the story and holding children's attention by reproducing the rhythm and the pace of the story (El'koninova, 2001a). Dramatized reading enables listeners to empathize and emotionally

experience the events of the tales. This experiencing and the mental visualization facilitates decoding the meaning of the spoken word, which is yet a challenge for children at preschool age (Seeger et al., 2016). Moreover, in dramatized reading the storyteller provides children with models in accordance to the Tools of the Play, such as demonstrating how to simulate a character, by using different props for each character, adjusting intonation and gestures accordingly, for instance a piece of white fake-fur and high-pitched voice for the mother-goat. Plus, the storyteller provides models of how to play-act, by using iconic play-acts and gestures for the respective action of the plot, such as knocking on the floor when the wolf knocks on the goat's door. And the storyteller provides models for how to enact emotions, by adjusting voice, facial expression, and posture in accordance to the emotion of the plot, for example fear is symbolized by wide open eyes, pulled up eyebrows, and hunched shoulders.

In dramatized reading, the reader is always oriented in two directions, he draws the children into the imaginary world “by reincarnating himself into the figures in the story, i.e. via the expressiveness of his intonation” (El'koninova, 2001a., p. 39), while at the same time keeping the children away from the imaginary world by reminding them that it is just a story. The twofold orientation in dramatized reading leaves the reader as the intermediary between the world and wisdom of the story and the children's worlds and souls, creating an emotional bond between storyteller and listeners (Fleer et al., 2014; Schieder, 1996).

In dramatized reading, it is important to keep eye-contact and pay close attention to the children's reactions in order to notice when children empathize too strongly, which might happen since the suspense of the emotionally charged tales are enhanced by the prototypical expression of the emotions, with the risk that children could experience the respective emotional episodes as real, and even cry (El'koninova, 2001a).

Still, in dramatized reading emotion awareness can be promoted, because the expression of prototypical emotions allows children to visually match an external expression to the inner sensation they feel, when following the plot. When listening to a fairytale the child “takes in the story; he [sic] comprehends its sense, which is conveyed by the relations and the actions of the characters.... a child emotionally experiences and feels the actions of the main character as the events in the story unfold...” (El'koninova, 2001a, p. 40). Nonetheless, the adult must be sensitive to the respective group of children that are listening, always adjusting the intensity of the reading in accordance to the children's constitution. For instance, when reading to very sensitive children, the adult must soften and lower the voice and read rather objectively and unemotionally, but when reading to challenging or rebellious children the adult can enhance the intensity of the emotions in the story and really dramatize the scary wolf. In either case, it

might happen that children move closer together, or even try to move closer to the adult, when the plot reaches a scary part. When this happens, the adult must be emotionally available for children, to comfort them, let them sit in her lap, putting her arm around them and convey emotional security. This requires intensive training and preparation on part of the adult, who is reading fairytales in a dramatized fashion (Schieder, 1996).

3.6.3 Scaffolding of Children's Pretend-Play

Another mediator we applied in our intervention was scaffolding by the adult, because in preschool settings support and guidance of play is not provided by teachers (Hakkarainen & Brédikyté, 2008). A scaffolding adult is “an adult who selectively provides support when children are engaging in tasks within their zone of proximal development and remain unobtrusive when children are fully capable of completing the task independently” (Gioia & Tobin, 2010, p. 184). Scaffolding in pretend-play can serve as an appropriate means for preschool children, because it is a combination of direct instruction and free play, which presents a learning goal and scaffolds the surrounding while allowing children to maintain a certain control over their learning (Weisberg et al., 2013b).

Scaffolding in pretend-play can serve multiple functions, for instance if the teacher is involved in the play as a character, he can serve as a role model for acting out the same character, while teaching-in-role can help shape children's embodiment of other characters (Brown & Pleydell, 1999). An example for teaching-in-role from our intervention would be the adult in the role of the wolf, knocking on the door of the goat's house and vocalizing the wolf's thoughts in a deep voice: “The goats cannot know that I am not their mother, because they cannot see me thru the door. He he he!”, which helps the children in role of the goats to remember that from the goats perspective the wolf is not visible, even though the children can clearly see the adult behind the little chair (used as the door), preventing the children from hiding right away, hence preventing them to react on their immediate impulses. Adult scaffolding in pretend-play can also teach social norms, regulating emotions, prosocial behavior, while at the same time having fun together (Gioia & Tobin, 2010). Adults scaffolding in play is multi-faceted. El'koninova (2001b) demonstrated that preschool children require adult's help when acting out fairytales. This help can entail for the adult to take the same role as the child and act out the plot together (e.g., a child acting as the wolf for the first time might need an 'adult' wolf for guidance), set up the space of the story (e.g., building the goats house and mark the forest-area), put on costumes and props (e.g., put the goat tails on the back of the children's pants), and give direct reminders when children deviate from the plot, to protect all

players involved (e.g., by saying “We agreed that the wolf does not touch the goats when they hide!”).

Scaffolding by an adult seems necessary in the development of children’s pretend-play these days, because “too many preschoolers continue to engage in play that would be appropriate for a 2-years-old but is something that 4-year-olds should have long outgrown.” (Leong & Bodrova, 2012, p. 29). The statement supports the notion that structured adult-guidance needs to be provided in order to promote the development of mature play, because many of the pretend-play skills that children learned in the past by observing and imitating their more competent or older peers nowadays have to be taught directly by teachers (Leong & Bodrova, 2012).

Scaffolding by an adult in play needs to strategically target the most critical components, which are planning the play, taking on and maintain roles, extending a play for a longer period of time (within one session or over several sessions), using language to develop play plots and coordinate the play, and maintaining the quality of the play plots. These components can be found in the Tools of the Play and depending on the individual play-level of the children, the adult needs to differentiate what kind of scaffolding is most appropriate for each child (ibid.). Individualized scaffolding is also necessary when acting out emotional episodes from fairytales, because without adult guidance in free play children might experience emotions, but they are not made conscious as feeling states (Fleer & Hammer, 2013). Demonstrating the necessity for adult involvement in play, as for children to experience a contingency between the feeling state, the emotion expression, and the respective verbal designation of that feeling, allowing for emotional awareness to arise. “When the adults take part in the play, the children’s play actions are developing into conscious dramatization.” (Lindqvist, 1995, p. 213), which is why an adult PL guided children’s play in our intervention and acted as a competent play partner.

3.6.4 Materials used in the Intervention

Further concrete and tangible mediators used in our pretend-play intervention were certain materials to create and uphold the playworlds and which aided the adult’s guidance and support the children’s play (Seeger et al., 2016).

(1) *Designated room for playgroup.* The play intervention is best be held in a large-enough room, so that different playworlds can be built, while leaving enough space to move around freely. At the same time, the room should be as little distracting and stimulating as possible, as not to distract children from the stories and the play. In our intervention we used rooms which are also used as gyms and therefore contained gym equipment, balls, mats, wall bars,

etc., which were distracting at times. However, such rooms were prepared accordingly, materials were either used for intervention purposes, moved aside, or hidden.

- (2) *Reading-manuscripts of fairytales.* As mentioned above, dramatized reading is a mode where the story plot is visually supported by gestures and emotion expressions displayed by the reader. The expression signs were drawn from the list of childhood emotions (Table 1), where prototypical expression signs for all relevant emotions are listed. In order to standardize the dramatization, all texts used in the intervention were edited in such a way that the reader received directions within the manuscript (see Appendix A), precisely indicating when to support the story visually, granting a standardized implementation. Table 2 shows the key instructions for the readers that were included in each text.

Table 2. Key directions for dramatized reading in the pretend-play intervention.

Directions for dramatized reading	
<i>Yellow, italic font</i>	Describes gestures to be shown throughout the reading
<u>Underlined</u> and type of intonation added	Specifies which part of the text is to be read with which intonation
Underlined words	Such words are to be read emphasized
– <i>B</i> –	Making a significant break
Spea-king-in-di-vi-dual-syl-la-bels	This spelling indicates: Each syllable is to be spoken separately
Composition of the circle center	2 Chiffon cloths und artificial gems

However, even with the prepared manuscripts and the directions, dramatized requires intensive training and preparation on part of the storyteller. For our intervention, the storyteller had to practice prototypical expressions of emotions in front of a mirror and was instructed to be very familiar with the reading manuscript, before taking it into a group of children. After the individual practice, all story tellers were trained together in group sessions, where they took turns in reading out loud, to ensure a standardized and consistent reading. In dramatized reading the storyteller must almost know by heart, which expression, intonation, and gesture to show at which place in the story in order to have capacities available for noticing children's reactions and for regulating their emotions, if necessary, through adapting his or her dramatized reading.

- (3) *Instructions for play-plots.* The instructions for playing individual sequences of the fairytales changed and evolved over the course of the various studies. In the Pilot Study the play-instructions were embedded in the text of reading-manuscript, but highlighted in a different font color. In Study 1 the instructions were divided by plots, each plot tabulated on a different sheet of paper, providing information for each role, the corresponding play-

actions, play locations, role-language, emotions, and possible variations. In Study 2 the instructions were professionalized and brought into a handy form of double-page cards in A5 format, with each card containing the instructions for one plot. The front side provided all information on the plot and play action, whilst the backside provided additional information on materials, instructions of the sequence and possible play-variations. The final card-format used in Study 2 will be further discussed in chapter 6.3.4 *Intervention*.

- (4) *Flexible props for dramatizing fairytales*. Depending on the fairytale, fictive play-locations had to be marked in the room, as to remind the children of the places throughout the play. Also, the various roles had to be marked and role-props provided as to facilitate the empathizing of the children with their roles. Different fairytales require different play-locations and roles, therefore the props were flexible. The objects, the furniture and the conditions in the room were utilized for building the playworld, for instance a wooden chair was used as the goats' front door, a parachute cloth functioned as the pig's house of straw, a tipped over table cased in a big black blanket functioned as the robber's house, that the Town Musicians of Bremen discovered. The role-props used in the intervention were rather simple, for example the ears of the goats were pieces of white felt and their tails were white chiffons, a big shaggy piece of gray fake-fur was the wolf's costume, a red chiffon was tied around the rooster's head, with the bow on top to imitate the cockscomb. The role-props were not detailed costumes, but simple non-theater props with the function to act as a symbolic marker, which functions as a tangible reminder for the child and the play partners throughout the play, to remind all participants of the role, supporting the mental representation.
- (5) *Fixed props for creating 'fairyland'*. Fixed props to create a 'fairyland' included (1) a see-through-curtain on the door to mark the entrance into the 'fairyland', (2) seat pads for each participant and the play leader (PL) spread in a circle or used to mark play-locations, (3) several seat pads in a different color to mark a break-area on the side of the room, where children could retreat to if they needed to take a break from play, (4) different color chiffon cloths, (5) a xylophone to play an introductory and concluding melody at the beginning and end of the play session, and (6) finally a little bell which was used as a 'hush-signal' to calm and focus the play-group. This 'hush-signal' was only one of several group management techniques.

3.6.5 Group Management Techniques

When dealing with a group of children and trying to teach them a skill, it becomes quickly obvious that each child has individual needs, ideas, temperaments, attention-spans, and arousal-levels. The arousal-level becomes especially an issue when trying to create and maintain a play frame, in which children can play with each other (Seeger et al., 2016), in a room full of colorful assortments of props, fabrics, and instruments, with each one causing strong impulses that are difficult to regulate for preschool children. Furthermore, preschool is an important phase in the development of self-regulation, because children move from co- to self-regulation, which means that they need help of caregiver, because “caregivers play a constitutive role in the child’s social-emotional development, especially by co-regulating emotionally challenging situations.” (Silkenbeumer, Schiller, Holodynski & Kärtner, 2016, p. 17). Such emotionally challenging situations occurred in our pretend-play intervention constantly, requiring active adult intervention, for instance when two children fought over a prop, or when several children wanted to play the same role (Leong & Bodrova, 2012), when they prematurely wanted to put on the props or touch the instruments, when they wanted to run around screaming instead of sitting still and listening to the story, when the suspense of the story took over and they acted on their motion-impulses, when they did not stick to the planned plot and upset other children, etc..

Each of these emotionally challenging situations requires group management techniques. The group management techniques used in our intervention were derived from Dollase (2015) and from classroom management strategies for elementary schools (e.g., Marzano, Marzano & Pickering, 2003). Group management strategies in our intervention were:

- a) Giving a warning or admonition, e.g., “Please stop bothering your neighbor, try to sit next to him peacefully, if not you will have to come sit by my side.”
- b) Sanctions, e.g., “Now you have to come sit by my side, because you didn’t stop teasing him.”
- c) Verbal instructions, e.g., “I know it’s very hard not to touch the role-props, but please try and wait until the end of the story when we assign roles. It might help if you sit on your hands.”
- d) Non-verbal strategies such as eye contact, e.g., pausing from reading and giving the disturbing children a piercing glance, body contact or prompts, e.g., when a child is agitated and restless, but cannot contain himself the teacher can put a hand on the child’s back to calm and co-regulate the child, or

- e) Signs with signal effect, e.g., a small bell which is used as a ‘hush-signal’ when the situation gets out of hand, too wild or uncoordinated and the teachers wants to get everyone’s attention (based on Marzano et al., 2003; Stage & Quiroz, 1997). Especially the last technique, implementing a sign with signal effect, needs to be implemented in the first intervention session and dry trained before it is needed in the course of a session.

Beyond the intervention-techniques, we effectively organized the course of the play-session, because classroom management research found that in an effectively managed classroom, the teacher succeeds in appropriately and sweepingly switching from one group activity to the next one (Kounin, 1970), always maintaining the group focus (Dollase, 2015). Transferred to our play intervention, this means that it was important for the PL to maintain momentum, by smoothly switching from reading, to planning, to playing, as not to leave too much unstructured time in-between and preventing long-windedness (*ibid.*). Long-windedness and leaving children unoccupied between different phases of the play lets their minds wonder and they start engaging in other (sometimes destructive) activities outside the play-frame. Furthermore, it is important to establish rituals and rules, as to prevent disturbances throughout the session (Evertson & Harris, 1999). Such rituals and rules need to be established in the first intervention session and then consequently maintained over the course of the whole intervention.

3.7 Content and Course of the Intervention

After the intervention mediators were introduced above, in the following, it is introduced how and in which sequence these mediators were introduced. This chapter is dedicated not only to the conception of the intervention, but also to the development thereof, therefore the progression of the individual steps over time will also be reported in the following. Hence, some outcomes of the development of the intervention are anticipated in this chapter.

3.7.1 Organization in Modules

The pretend-play intervention sessions were organized in ‘modules’. A module describes the standardized and ritualized course of events, of which two were delivered a week by a trained play leader (PL), as to maintain the flow of play and enable continuity of the experience, while leaving enough time in-between modules for consolidating what was learned. A module describes a session or lesson, where a fairytale, or parts of it, is being read and then selected sequences are dramatized with the PL’s guidance. In regard to the contents of the modules, at the beginning of the intervention dwarf-tales (specifically written for the intervention) were

read and dramatized, followed by classical fairytales. The dwarf-tales were intended to introduce the Tools of the Play, while the fairytales were intended to grapple with and dramatize emotion episodes of children's existential topics (Seeger et al., 2016). The number and length of modules varied across the three evaluation studies. In the *Pilot Study* the intervention contained 8 modules, each module lasting 60-70 minutes, in *Study 1* the intervention consisted of 10 modules, with each one lasting about 45 minutes, and in *Study 2* the intervention contained 15 modules, with each one lasting 25 minutes.

Each module followed a ritualized structure, thus, providing a fixed reliable structure and a steady frame. This ritualized structure also varied across the three evaluation studies. In the *Pilot Study* the first three modules started with tales that were specifically written for the intervention ("The Magic Cloth", "The Dwarf-Forest", and "The Stolen Treasure"), but the dramatized reading was interrupted by play-elements. Every time something happened in the story that could also be enacted by the children, Play Leader (PL) stopped reading and encouraged children to get into character and act out the plot. After the enactment of the plot, the PL gathered the children back in the circle, continued reading, until the next playable sequence occurred in the story. In the following modules of the Pilot Study, the "The Wolf and the Seven Goats" by the Brothers Grimm (1857), was read and enacted, the entire tale was read twice in two consecutive modules. After the first reading only the happy end was enacted, and in the following modules more and more plots were added to the play.

In *Study 1* the structure of the modules was quite similar to that in the Pilot Study, with the only variation that the "Town Musicians of Bremen", also by the Brothers Grimm (1857), was added and handled similarly as "The Wolf and the Seven Goats". The "Town Musicians of Bremen" was also read twice in two successive sessions, though before enacting the stories' plots, the animal roles were introduced individually, as to acquaint children with the characteristics of each animal.

However, significant changes in the structure of a module occurred in *Study 2*, starting with ceasing "The Magic Cloth" and revising the dwarf-tales. The dwarf-tales were also read completely, but only after finishing the complete story the plots were enacted, this way children remained focused throughout the reading, really following the content of the story, instead of being interrupted ever few minutes. Also, each new story was only read once and in the subsequent sessions the selected plots were enacted. Another variation in Study 2 was the addition of "The Three Little Pigs" by Joseph Jacobs (1890), which was handled the same way as the other fairytales. Considering the shortened length of each module, in Study 2 this way

more time for playing was available and at the same time children were not left over exhausted (as they were by longer modules in the previous studies).

In all three studies, after the stories were introduced, for each module the stories were broken down into plots (short scenes) that were planned and acted out independently, not following the linear sequence of the story, and children were able and encouraged to change roles from one plot to another. Changing roles was encouraged, because “extending one particular role or ongoing action for too long is too demanding (if not impossible) for young children, and they will quickly lose focus.” (Brown & Pleydell, 1999, p. 28). Additionally, in the Pilot Study and in Study 1 there was a module with no fixed structure at the end of the intervention period, in Study 2 there were two, once in the first third of the intervention and again at the end, they were called ‘free-play-module’. These free-play-modules served as a diagnostic check-ups, to see how children would initiate and plan the play process on their own and the second free-play module in Study 2 enabled to observe the children’s progress over the course of the intervention. In free-play-modules the PL would observe and only intervene when children did not initiate play or got stuck (Seeger et al., 2016). An overview of modules will be given in the respective sections of each study further down.

3.7.2 Application of Planning-Tools

In each module, children were scaffolded to dramatize selected plots of the read stories. Each selected plot contained a complete emotion episode from the respective story. Each plot included the (1) emotion eliciting cause from the fictive context, which causes the role-emotion of the protagonist, (2) but also a complementary reaction in the antagonistic protagonist, for instance the wolf’s aggressive craving and the goat’s fear, and (3) the expression of each dramatized emotion by the protagonists in reaction to the cause (Seeger et al., 2016), which was explained in chapter 3.4 *Gaining Emotion Awareness*. In general, children cannot just start to play, plots are often too complex and all play partners have to agree, hence before playing children need to agree on a plot and plan the play.

Planning is one of the most important features of mature play (Leong & Bodrova, 2012). This planning mostly consist of extensive discussions of who is going to do what and how, which enables the forming of the metacognitive structure for successful self-regulation. The metacognitive structure for successful self-regulation entails the knowledge that actions need to be planned before being executed. The planning of the play also enables the communicative demand, to make arrangements and agree with the play partners about the assigned roles, the play-frame and -actions, while at the same time sticking to those agreements throughout the play. “By making planning a necessary step in play, the teacher directs children’s attention to

the specifics of their roles and to the existence of rules associated with them.” (Leong & Bodrova, 2012, p. 32).

Only planning the enactment of a selected plot can promote a volitional and coordinated form of self-regulation, making this planning a crucial element of the pretend-play intervention. When planning a play sequence it is important to agree on roles and rules of the selected plot, such as which play-locations to use within the room, which roles to assign, and which plot to enact, all while selecting props, play-actions, and emotion expressions for each role. This detailed planning is an important part of play, because the focus of mature play is the characters and the relationship between them, which is something that children cannot learn by just observing adult behaviors. “Therefore, to promote mature play, teachers need to explain the purpose of these behaviors, their sequence, the cause-and-effect relationships between different behaviors, and so on.” (ibid., p. 32). In planning the enactment of a plot from a story the Tools of the Play are necessary instruments, but children nowadays are often not familiar with them anymore. Therefore, in the planning phase of the plot the PL made use of the same, standardized questions, as to acquaint children with the planning process, where metacommunication is used to make arrangements. The following questions were asked by the PL and answered by the participating children:

- a) *What are we going to play?* The selections of the plots from the playworld (e.g., the fairyland from the dwarf-tales, or the playworld from “The Wolf and the Seven Goats”) followed a fixed sequence plan, where the plots were preselected for fulfilling the requirements of a complete emotion episode, while regarding children’s needs and preferences. In the first few modules the PL always suggested plots from the playworlds, in accordance to children’s current needs (i.e. if they were rather agitated the PL would select a plot that would satisfy children’s urge to move), but the children could also express their preferences. After a few sessions, when children were more familiar with the planning, they could make their own suggestions on which plot to enact, while the PL made sure that selected plots with certain emotion episodes were always included. An example from the first fairytale of the intervention would be the PL by saying: “Today we’re playing ‘The Wolf and the Seven Goats’.”, followed by introducing the plot by saying: “Let’s play how the wolf knocks on the door of the goat’s house for the first time, but the goats don’t open and remain safe.”
- b) *How are we going to play that?* After determining the plot and before engaging in the enactment, the implementation was inquired by asking about the roles and actions of the particular plot. Meanwhile, the PL described and demonstrated the content of the

plot by using the Tools of the Play, so that instructions were not only given verbally, but partially implemented in the play-action.

- c) *Assigning roles*: “*Who do you want to be?*” The PL started the implementation-discussion by asking about which roles were needed for the particular plot, demonstrating the characteristics of each role, and assigning the roles.
- Role-props*: “*What do you look like?*” Thereupon the PL asked how the individual roles could be recognized and what props were needed to mark each role (e.g., gray, shaggy fake-fur for the wolf, enacted by the PL, and white, felted ears and tails for the children enacting the goats).
- d) *Play-action*: “*What will you do?*” Afterwards, the PL elucidated and demonstrated the play-action, as to clarify for each child what their individual role action was and when to interact with (antagonistic) roles in the play sequence. By elucidating the play-actions, children would understand the emotion eliciting cause of the fictive emotion episode and the prototypical expression thereof, all while acting from the motive-perspective of their role and engaging in the role-specific behavior and speech.
- e) *Marking play-locations*: “*Where will you do that?*” The next question of the PL was where in the room the particular play actions were taking place and which props were needed to mark those locations in the room, for instance by marking the wall of the goat’s house with seat pads and putting a chair between two seat pads as the door to the house, and a table covered in black cloth as the clock case. The visible markers in the room functioned as symbols (e.g., the chair) and reminders for the play-locations (e.g., the door to the goat’s house), helping to orient the play action (e.g., the goats are safe within their house, as long as the door is closed).
- f) *Modulating emotions*: “*How will you do that?*” The last question asked by the PL was which emotion was in the focus of the selected plot, how to modulate it, and linking it to the electing cause, by asking questions like “*How do the goats feel, when they are home all alone and the wolf knocks on the door?*”, followed by questions such as: “*How do the goats look when they are scare?...Yes, they open their eyes very widely and hunch their shoulders.*”, while embodying the prototypical expression signs.

After the planning was complete, the selected plot was enacted. Then the PL gathered the children back in a circle, discussing the variation for repeating the same plot with changed roles or intensified dramatizing of emotions. After a few repetitions the next sequence of the story was planned and enacted, but the order of the plots did not have to follow the chronological

sequence of the story, instead it was adjusted to the children's preferences and needs. This planning of selected plots was developed over the course of the three evaluation studies and finally optimized in Study 2 (see chap. 6 for more details).

3.7.3 Ritualized Sequence of a Module

The structure of each module was ritualized, following a principal structure and embedding the play actions expediently. Thus, the ritualized structure provided a fixed, reliable and steady frame, marking the beginning and end of the session clearly, making the structure predictable for the participating children. This ritualized structure is important for children because the ritual helps children enter the imaginary world of the play (Brown & Pleydell, 1999). That imaginary world was built by the PL prior to each play module. The PL prepared the 'fairyland', which generally meant setting up the cameras from two perspectives (for video documenting the intervention), hanging the fairyland-curtain on the door, laying out the seat pads in a circle, organizing the role-props in the circle center, laying out seat pads as the 'break-area' in a designated spot of the room, and putting out the xylophone and the bell. Additionally, the room was individually prepared in accordance to the playworld of the respective session, by using items from the kindergarten, such as chairs, tables, benches, foam elements, and what else was available, in conjunction with different shapes, sizes, and colors of cloths and seat pads. However, the playworlds were only symbolized and not realistically replicated. After the fairyland was built by the PL, each module followed the same structure. This ritualized structure entailed, (1) the welcoming ritual, (2) the dramatized reading, (3) the enactment of the selected plots, and (4) closing ritual:

- (1) *Welcoming ritual.* All participating children of a play group were collected from their classrooms and entered the room of intervention individually thru the curtain, where each child was greeted by name by the PL, welcoming them in 'fairyland', using a whispery voice and instructed them to find a place in the circle. Once every child was seated, the PL played a little tune on the xylophone, which was again played at the end of the session, serving as a musical opening- and ending signal. "The opening (introduction) and closing of the drama serve as bookends, separating the fantasy of the drama from reality of the classroom." (Brown & Pleydell, 1999, p. 24).
- (2) *Dramatized reading.* After playing the xylophone-tune, the PL started the module by introducing the current playworld, either by reading a full story, or parts of it in a dramatized fashion. Dramatized reading captures children's imagination, it acquaints them with the plot and the roles (including the role-props), illustrates the

connections and the prototypical expression signs of emotions (see chap. 3.6.2 *Dramatized reading of Fairytales*).

- (3) *Guided enactment of selected plots*. After the dramatized reading, the plot was jointly planned with the PL and the children, as to teach children the crucial tools of mature play (where the play is planned beforehand) and promote their play competences. The joint planning followed the structure of the PL's questions (see chap. 3.7.2 *Application of planning-tools*). After the joint enactment, either the same plot was repeated or the next one planned. Hence, step (3) and (4) could recur several times within the same module.
- (4) *Closing ritual*. The closing ritual varied across the three studies. At the end of a module in the Pilot Study and in Study 1 children were encouraged to deposit of all role-props and thereby step out of the role, after which they were instructed to build a bed from seat pads and cloths and lay down, while the PL played the wind-bells. After a short resting phase, children were woken up, the xylophone was played again as an ending signal, after which children were instructed to stretch and clean up the materials. As a result of analyzing formative evaluations and video documentation of the Pilot Study and Study 1, the closing ritual was abbreviated for Study 2, because after the excitement of enacting the story it seemed too challenging for children to rest in that context. Therefore, in Study 2 children were encouraged step out of their role by collecting all role-props in the circle center and then quietly line up at the door. In all three studies, children were individually seen off by name at the door. This stepping thru the fairyland curtain at the door was the farewell from fairyland and marked the transition back to the classroom rules and routines. This closing ritual is a vital element of a play session. It helps children to create a solid boundary around the event and enables them to return to the world of their classroom and not remain "stuck" in the character or the world of the fairytale (Brown & Pleydell, 1999).

4 Conception for Testing the Efficacy

From chapter 2 *Theoretical Background* of this dissertation, it can be summarized that socioemotional competences and emotion regulation start to develop in early childhood and are a core competence in children's development, with promoting effects on academic achievement, and children's social and mental well-being (Denham et al., 2012b). And from chapter 3 *Conception of the Pretend-Play Intervention*, it can be concluded what an appropriate promotion of such competences would entail. However, before such an intervention can be extensively implemented in various preschools, proof of efficacy needs to be provided. In order to test the efficacy of the developed intervention concept, certain steps must be taken. First, the intervention program must be evaluated formatively, before summative evaluations can be conducted. Therefore, a preceding piloting study was conducted to test the manageability of the intervention mediators reported in chapter 3.6 *Intervention Mediators*. The intervention mediators were the crucial aspects, which were intended to have beneficial effects on children's socioemotional competences, therefore it was important to test whether children would be accepting of the mediation strategies. Second, the course of the intervention had to be field-tested (see chapter 3.7. *Content and Course of the Intervention*), as to test whether the planned sequence of modules would keep children mentally engaged and whether participation would be fun for them. These two steps were taken in a first piloting study, where the intervention was field-tested for the first time and the intervention continuously modified and improved throughout the Pilot Study (chap. 5).

Once the conductibility was proven and an intervention manual established, a first control-group design was implemented in a summative evaluation to rule out maturation as the reason for potential improvements. The efficacy of the intervention in comparison to the regular kindergarten program was tested in Study 1 (chap. 6). After the efficacy was proven in Study 1, a more rigorous evaluation design was implemented in Study 2 (chap. 7). In Study 2 we investigated whether pretend-play training was causally implicated in fostering play competences and socioemotional competences in preschool children, using a methodologically complete design and an optimized intervention, including a treated control group, which was implemented to make sure that positive results from Study 1 were not due to the stimulating effect of a structured extracurricular activity. Therefore, in Study 2 we compared the play training to a dialogic reading training, which was designed to match the framework conditions of the play intervention exactly, except for the play elements. Both trainings were additionally compared with a no-treatment control group. This approach allowed an exact examination of

the mode of action of ‘play’ and the effect that play itself could have on the development of socioemotional competences. Additionally, Hager states that evaluations should always be longitudinally oriented, suggesting the pre-post-follow-up-design as the best design (as cited in Köller, 2009). These efforts resulted in a pre-post-follow-up-treated-control-group-design for Study 2. Hence, a follow-up test was conducted three months after the post-test to investigate the long-term effect of the intervention program. With our intervention program we expected to target different competences in children, which were operationalized as dependent variables individually for Study 1 and 2.

4.1 Expectation 1: Fostering Play Competence

First, elaborate role-play enhances emotion awareness and is thereby crucial for fostering socioemotional competences (Bodrova & Leong, 2010; Galyer & Evans, 2001), which is why the present pretend-play intervention focused on scaffolding children’s role-play. Role-play does not necessarily develop spontaneously, but is the result of social interaction, preferably with the help of an adult model (Ashiabi, 2007; Hakkarainen, Brèdikytè, Jakkula, & Munter, 2013; Weisberg et al., 2013b). Adult’s scaffolding in joint role-play with children increases children’s play competences and leads to more elaborate and complex play (Bornstein, 2007; Fiese, 1990; Fthenakis & Textor, 2000). Adult’s scaffolding is the underlying mechanism of our intervention approach and therefore we expected a general increase in children’s role-play competences.

4.2 Expectation 2: Fostering Emotional Perspective Taking

Second, in elaborate play children take on characters and act from the perspective of the chosen character, with the respective emotions, and always in relation to the other characters in the play (Bretherton, 1989). Taking on a character requires a structured and integrated understanding of mental processes, which is called *Theory of Mind* (ToM). ToM is crucial for socioemotional competences, because it enables the understanding of other people’s knowledge, intentions, needs, and emotions. Only with ToM can other people’s goals and corresponding emotions be perceived and appraised, or their emotional perspective be taken (Miller, 2012). ToM is the basis for emotional perspective taking, which develops in preschool age. ToM is often assessed by false-belief-paradigms (Gopnik & Astington, 1988; Wimmer & Perner, 1983). Meta-analyses on the development of ToM confirm the phenomenon of false-beliefs and the continuous development thereof (Milligan, Astington, & Dack, 2007; Wellman, Cross, & Watson, 2001). Research on children’s ToM and emotional perspective taking has

revealed a steady developmental series with respect to children's understanding of the cognitions and emotions of protagonists who misinterpret the situation they are in. "Three-year-old children typically fail to attribute false beliefs to the protagonist, whereas most 4- and 5-year-olds succeed" (Ronfard & Harris, 2013, p. 2), but fail to correctly attribute emotions to a protagonist holding a false belief. This gap between 4- and 5-year-old's ability to understand a protagonist's misinterpretation (ToM) and their difficulty in attributing the emotions (emotional perspective taking) that would arise from such a misinterpretation is increasingly resolved between five and seven years of age (Ronfard & Harris, 2013). In every module of the intervention children took on different characters and execute numerous changes of roles throughout the intervention, we therefore expected that the intervention would foster children's emotional perspective taking, e.g., facilitating the correct attribution of emotions to others, because role-play enhances ToM and empathy (Goldstein & Winner, 2012), and children gradually learned to take the emotional perspective of many different characters.

4.3 Expectation 3: Fostering Emotion Knowledge

Third, in elaborate play the prototypical expression of emotions is practiced and at the same time verbally labeled in the preceding planning of the play, also role-play enhances empathy (Goldstein & Winner, 2012). Empathy, recognizing emotion expressions, and the ability to use the vocabulary of emotion are crucial aspects of emotional competence (Saarni, 1999) and can be subsumed as emotion knowledge. In the role-play of emotional plots a full emotion episode is reenacted (see chap. 3.4), teaching children about situational causes of emotions, how to express them bodily and facially, what the antagonist feels and what that expression would look like, how the antagonistic emotions are called and expressed (see Table 1 in chap. 3.4). We therefore expected that children's general emotion knowledge would be fostered in the pretend-play intervention.

4.4 Expectation 4: Fostering Self-Regulation and Socioemotional Competence

Fourth, various theorists and researchers hold the opinion that elaborate pretend-play is pivotal in children's acquisition of self- and emotion regulation (Berk et al., 2006). In pretend-role-play children create an imaginary situation, where they not only carry out as-if actions, but plan their play in advance that they take on and act out roles, while following the set of rules determined by the respective role, all while re-enacting emotionally charged events of the plot. Elaborate pretend-play supports the development of self-regulation by creating a situation in which children cannot be driven by their need for instant gratification, because in order to

follow the rules of the play and the rules of their role, they need to suppress their immediate impulses. Suppressing impulses requires children to volitionally inhibit behavior that is not part of their role, but to act deliberately and intentionally against immediate impulses. “To observe the rules of the play structure promises much greater pleasure from the game than the gratification of an immediate impulse.” (Vygotsky, 1967, p. 14). Therefore, pretend-play is also characterized by the rules of the respective roles and the rules of the imaginary situation, requiring intentional behavior. This intentional behavior and planning can be seen as an antecedent to reflective thinking, which is an important aspect of self-regulation (Goldberg as cited in Bordova et al., 2013). In sum, elaborate play can help develop motivation, perspective-taking, the development of imagination, volition, and self-regulation (El’konin, 2010). Saltz et al. (1977) assumed that the changes of roles in elaborate pretend-play has positive effects on children’s socioemotional competences. We therefore expected that our pretend-play intervention would foster reflective emotion regulation and socioemotional competences in general.

Now, since all four expectations were derived from theory and previous research, the efficacy of the conceptualized intervention needed to be tested. Therefore, the intervention program was evaluated formatively in the Pilot Study, and subsequently summative evaluations were conducted in Study 1 and Study 2.

5 Pilot Study

In an attempt to test the efficacy of the conceptualized intervention approach, the program was first evaluated formatively, in order to test the manageability of the intervention mediators (chap. 3.6) and the course of the intervention (chap. 3.7.). The Pilot Study was conducted in March and April of 2014, with the aim to investigate the conductibility of the theoretically derived pretend-play intervention. The theoretical considerations were tested with 24 children (14 males; $M_{\text{age}}=4.25$, $SD_{\text{age}}=0.9$, $\text{range}_{\text{age}}=3-6$) from a local kindergarten in Münster. Participants were divided into two intervention groups (group1 = 11 children and group2 = 13 children), with one child at risk in the socioemotional area (measured with the KIPPS+R by Seeger, Holodynski, & Souvignier, 2014) per group and each group containing children between three and six years. The age range was chosen, because that is when play is at its peak, especially from age three to six (Singer & Singer, 1990).

5.1 Procedure

The pilot version of the intervention contained 8 lessons that were administered twice a week by two trained adults (the author of this study and one graduate student), with each session lasting 60-70 minutes. An overview of the eight modules and the playable plots is given in Table 3, the numbering of the plots follows the chronological events of the stories. The plots were selected in accordance to the emotion episode they entail, since the enactment of emotion episode is at the core of the intervention. The selected emotions are drawn from the childhood emotions in Table 1 (chap. 3.4). In the enactment of the plots we focused on four emotions (fear, anger, joy, and triumph) in numerous variations. For instance, when the dwarfs realize that their treasure was stolen they are frightened, which is an emotion derived from the family of fear-related emotions.

Table 3. Sequence of the modules in the Pilot Study, with the stories and selected plots. Emotions of dwarf-characters and antagonistic emotions of fairytale-characters are indicated in brackets.

Module	Story	Playable plots (Emotions)
Introductory Stories		
1	<i>The Magic Cloth</i> Dramatized reading of full story and incorporated enactments	(1) Magical flower (astonishment) (2) The cloths encounter each other (fear, rage, joy) (3) Converting into royal children (pride) (4) Flying over the marketplace
2	<i>The Dwarf-Forest</i> Dramatized reading of full story and incorporated enactments	(1) Converting into dwarfs (2) Scolding Fauli (anger) (3) Begging Fauli (pleading) (4) Marching thru the forest, overcoming obstacles (5) Crossing over canyon (fear ⇒ courage as conquered fear) (6) Overcoming fear of dark cave (fear ⇒ courage as conquered fear) (7) Collecting gems from cave (joy ⇒ admiration) (8) Rushing home in thunderstorm
3	<i>The Stolen Treasure</i> Dramatized reading of full story and incorporated enactments	(1) Converting into dwarfs (2) Waking up Fauli with a “thunderstorm” (amusement) (3) Marching thru the forest, overcoming obstacles (4) Discovering that the treasure was stolen (fright ⇒ anger) (5) Searching for treasure (sadness) (6) Discovering that Fauli gave away the secret location of the treasure (anger ⇒ forgiveness) (7) Recovering the gems (joy)
The Wolf and the Seven Goats		
4	<i>The Wolf and the Seven Goats</i> Dramatized reading of full story and subsequent enactment	(8) Wolf falls in the well (wolf: pain ⇒ fright & goats: joy)
5	<i>The Wolf and the Seven Goats</i> Dramatized reading of full story, afterwards repeated until the first plot is reached and subsequently enacted	(3) Wolf knocks with white paw (all children played the little goat who was not eaten) (goats: fear) (4) Wolf eats and sleeps (children could play bigger goats and get eaten) (goats: fear) (4) Repetition: Wolf eats and sleeps (wolf: aggressive anger, voracity ⇒ satisfaction & goats fear) (8) Wolf falls in well (wolf: pain ⇒ fright & goats: joy)

6	<i>The Wolf and the Seven Goats</i> Introducing playworld, by naming play-locations & providing role-props	(4) Wolf eats and sleeps (children could play wolf or bigger goats who got eaten) (wolf: aggressive anger, voracity ⇒ satisfaction & goats: fear) (5) Mother returns and searches for goats (mother: fright & fear) (6) Mother rescues goats (mother: affection, joy & goats: relief, affection) → repetition and role-change if desired (8) Wolf falls in well (wolf: pain ⇒ fright & goats: joy)
7	<i>The Wolf and the Seven Goats</i> Introducing playworld, by naming play-locations & providing role-props	(4) Wolf eats and sleeps (children could play wolf or bigger goats who got eaten) (wolf: aggressive anger, voracity ⇒ satisfaction & goats: fear) (5) Mother returns and searches for goats (mother: fright & fear) (6) Mother rescues goats (mother: affection, joy & goats: relief, affection) → repetition and role-change if desired (7) Goats put rocks in wolfs stomach (goats: courage ⇒ relief) (8) Wolf falls in well (wolf: pain ⇒ fright & goats: joy)
8	<i>The Wolf and the Seven Goats</i> Free-play	After the welcoming ritual children were encouraged to play on their own, the playworld was partly set up, props and materials were available. No plot was prescribed by PL.

In each of the two play-groups, one adult was the main PL and the other one acted in support, with changing roles for each group, as to test whether the intervention could be conducted by different people. Also, the two groups started slightly time-displaced, as to allow for weaknesses to be optimized and the changes implemented in the second group. Ongoing evaluation was possible, because sessions were videotaped and after each session, videos and experience reports of both PLs were analyzed, evaluated and thus problem-areas identified.

The intention of the Pilot Study was to see whether children would eagerly participate in the intervention and enjoy it, and to formatively evaluate (1) the theorized sequence of a module, (2) the applicability of the specifically written tales and the fairytale, (3) the recreation of the emotion episodes from the tales, (4) the appropriateness of props and materials, (5) the potential length of a module, (6) suitable group size and participants age, and (7) the feasibility of the group management techniques.

5.2 Formative Evaluation

The aims of the formative evaluation of the Pilot Study were to field-test the theoretical considerations and conception of the intervention approach and its conductibility. Concerning (1) the theorized sequence of a module (the welcoming ritual, dramatized reading, guided enactment, and the closing ritual) we wanted to field-test whether it would provide enough structure and guidance for different PLs to conduct a steady quality of intervention, while testing whether children would accept that structure and have an easy time following.

Regarding (2) the applicability of the chosen stories with dramatizing the corresponding emotions, we wanted to find out if the written Dwarf-Tales and selected fairytale “The Wolf and the Seven Goats” were appealing to children, the themes and characters age-appropriate, emotionally touching, interesting, and mentally engaging. Also, we wanted to test how intensely the PL could dramatize the emotions in the dramatized reading, finding the line between too much and too little dramatization. Finding that line was a crucial goal of the Pilot Study, because the dramatization of the emotion episodes was theorized to be one of the central aspects the intervention, providing models for emotion expressions and enhancing the children’s empathizing with the characters, thus recreating a fictive emotion episode.

The (3) recreation of emotion episodes and the enactment thereof in character was theorized to be the main mode of action and also needed to be piloted, to observe if children would even engage in dramatizing emotions, how much scaffolding they required and how the PL could adjust his scaffolding to the different play levels of the participants.

Concerning (4) the appropriateness of props and materials, we aimed to find out whether the simple non-theater role-props (mostly different color chiffon cloths) were sufficient for children to get into character, whether the simple materials (mainly seat pads, cloths, chairs and tables) for marking the play-locations would suffice to symbolize locations from the tales, and a gymnastics-mat was tested as a break-area, where children could retreat to if needing a break from the reading or the play. Taking a break was theorized to enhance the emotion awareness, because it supports to “flicker” between the imaginary magical world and the real world until the child is positioned between the two, which enables self-regulation of emotional expression, as stated by Fleer and Hammer (2013).

In regard to (5) the potential length of a module, we were especially interested in seeing how long it would take to deliver the theorized elements in the premeditated structure, which resulted in a module-length of 60-70 minutes. While the length was established, we checked the participant’s attention span and interest, as to see if children could follow and play attentively for an hour or lose interest and leave the play frame.

Concerning (6) suitable group size and participants age, we wanted to test if a group size of about 12 children would be feasible and could be handled by two PLs, while verifying if the recommended age-range from 3-6 years (Singer & Singer, 1990) was also suitable for the contents of our pretend-play intervention.

Relating to (7) the feasibility of the group management techniques, we wanted to determine whether the selected techniques were suitable and if classroom strategies could be transferred to the preschool setting, such as the strategies giving a warning/admonition, sanctions, verbal instructions, eye contact and the technique of using a sign with signal effect, in our case a bell which was rung by the PL when the situation got out of hand, upon which children had to be quiet right away and be sitting in the circle within 30 seconds. The strategy of using body contact or prompts was more attuned to the preschool setting from the beginning, because preschool children require more co-regulation than school children, therefore for them eye contact is not always cue enough, for example, when they get too agitated or wild they need to be physically touched or held, as a means of interpersonal regulation.

5.3 Adaptations

First, the Pilot Study was intended to find out whether children would eagerly participate in the intervention and enjoy it, and they did. Reports of both PLs reflected that children maintained a high level of joy of playing throughout one session and across the eight modules of the intervention. The participants were always looking forward to the next session and participated zealously. Second, the Pilot Study was intended to test the theorized elements of the manageability of the intervention mediators (chap. 3.6) and the course of the intervention (chap. 3.7.). The formative evaluation of the Pilot Study resulted in the following changes of the intervention-elements for the following Study 1:

- (1) The theorized sequence of a module was proven to be manageable, the two different PLs were able to follow the instructions and children could follow easily. However, it became apparent that the intervention materials needed to be manualized more strongly, in order to be conductible by further PLs in Study 1.
- (2) The specifically written Dwarf-Tales and the fairytale were also approved. However, the lengths of the stories needed to be shortened for Study 1, because the attention span of preschool children is limited. In the Pilot Study we observed that if the story dragged on for too long children lost focus and became agitated, which was evidenced by motor restlessness and disruptive behavior.

- (3) The recreation of the emotion episodes from the tales were successful, but the intensity of the dramatized emotions should be adjusted more closely to the individual child, because their limit of tolerance is quite diverse between 3 and 6 years. Also, we learned that mental overload was to be prevented by offering interpersonal regulation strategies, such as “This is just a story, everything will be okay.”, “This is quite a scary part of the story, do you want to come sit by my side?”, or by asking for regulation strategies, such as “What can you do, when you get scared?”.
- (4) The simple role-props and materials were accepted by children and sufficed for getting into character and marking the playworld’s locations.
- (5) The length of a module was apparently too long, at the end of the module, children were exhausted, over-stimulated, tired and not receptive anymore. Our observation is that role-play is hard work for children, it involves all their senses and mental capacities, and therefore we decided to shorten the modules to 45 minutes each.
- (6) Concerning the group size and participants age, we learned from the Pilot Study that a group should not exceed 10 participants and that participants should be more homogenous in age. Especially the ratio of three-year-olds should be reduced, because they are only at the verge of role-play and require a lot of attention and guidance from the PL.
- (7) The group management techniques were adequate, but needed revision. Preschool children’s main form of expressing excitement is strong motor activity and they still require a fair amount of co-regulation, which mostly consist of bodily guidance (body prompts). Also, preschool children require more time when translating an auditory signal (bell) into concrete action-plans/behavior and should therefore be given more time to realize the target behavior after the hush-signal.

In sum, both intentions of the Pilot Study were successfully confirmed. The formative evaluation and experiences from the Pilot Study led to the above-mentioned changes of the intervention, the identified weaknesses were revised for Study 1.

6 Study 1

6.1 Introduction

Study 1 was conducted from the end of April until the end June of 2014 and the purpose was twofold. First, we tested the efficacy of the revised pretend-play intervention by comparing it with an untreated control group, utilizing a pseudo-randomized design. Second, we investigated if different play-leaders could conduct the manualized intervention in different institutions to see if the provided training and materials were adequate. In this study, preschool children of the intervention group (IG) participated in a guided pretend play intervention and were compared to an untreated control group (CG). Before and after the intervention children of both groups were tested on different measures of socioemotional competence.

The fairytale-based pretend-play intervention evaluated in this study is a child-oriented, playful, and not solely language-based intervention program intended to promote children's pretend-play abilities and enhance their socioemotional competence. The intervention is based on Vygotsky's "Zone of Proximal Development" (ZPD), which is a way to conceptualize the relationship between learning and development (Bodrova & Leong, 2007) and emphasizes not only the teaching of skills, but also the experience of complete emotion episodes. A basic premise of the pretend-play intervention is the assumption that in order to foster children's socioemotional competence, they need to be armed with the Tools of the Play, enabling them to become mature players, because only mature, developed pretend-play can enhance skills that function as prerequisites for successful emotion knowledge and emotion regulation.

6.2 Hypothesis

We hypothesized that children who participated in the pretend-play intervention for six weeks would, compared to children from the control group (CG), exhibit significantly better skills at post-test in three domains: role-play competence, emotional perspective-taking, and emotional knowledge. We also hypothesized that kindergarten teachers would rate children from the intervention group (IG) at post-test as socioemotionally more competent compared to peers who had not participated in the program (CG).

Hypothesis 1: Elaborate role play enhances emotion awareness and is thereby crucial for fostering socioemotional competences (Galyer & Evans, 2001; Bodrova & Leong, 2010), which is why the present pretend-play intervention focused on scaffolding children's role play. Adult's scaffolding in joint role-play increases children's play competences and leads to more elaborate

play (Bornstein, 2007; Fiese, 1990; Fthenakis & Textor, 2000). Adult's scaffolding in joint play is the underlying mechanism of our intervention approach and therefore we expected a significant increase of role-play competences in children of the IG at post-test, compared to an untreated CG.

Hypothesis 2: In elaborate role-play children take on characters and act from the perspective of the chosen character, with the respective emotions in relation to the other characters in the play (Bretherton, 1989; de Lorimier et al., 1995), which enhances ToM and empathy (Goldstein & Winner, 2012). In every module of the intervention children took on different characters, we therefore expected that the intervention would foster children's emotional perspective taking, which would be manifested in significantly better scores in an emotional false-belief task at post-test, compared to an untreated CG.

Hypothesis 3: In elaborate pretend-play the prototypical expression of emotions is practiced and at the same time verbally labeled in the preceding planning of the play. This kind of role-play enhances empathy (Goldstein & Winner, 2012). Empathy, recognizing emotion expressions, and the ability to use the vocabulary of emotion are crucial aspects of emotional competence (Saarni, 1999) and can be subsumed as emotion knowledge. The adult scaffolding in the joint play teaches children about emotion expression, how emotions are verbally labeled and expressed (see Table 1 in chap. 3.4). We therefore expect a significant improvement of emotion knowledge, operationalized as recognition of emotion expression indicators, in children of the IG, compared to an untreated CG.

Hypothesis 4: Numerous studies concluded that pretend-role play is essential in fostering socioemotional competences in preschoolers (Bodrova & Leong, 2010; Chinekesh et al., 2014; Denham et al., 2013; Howes & Matheson, 1992). Saltz et al. (1977) assumed that it is especially the changes of roles in elaborate pretend-play that has positive effects on children's socioemotional competences. We therefore expected that our pretend-play intervention would lead to a significant increase of socioemotional competences in the IG, in comparison to an untreated CG.

The above mentioned hypotheses were tested with the following methods and experimental design.

6.3 Method

6.3.1 Design

Preferably, an intervention study should randomly assign participants to an intervention and a control group. However, random assignment in the preschool settings was difficult to carry out, because recruiting of participants depended on parents' permission and was influenced by teacher's pre-selection of potential participants. This resulted in just enough participants to conduct the intervention, but not enough for random assignment. Therefore, we must rely on a quasi-experimental design. Hence, natural groups were compared, where intervention (IG) and untreated control (CG) participants were not in the same physical location, as to avoid mutual interference. Nevertheless, this procedure could result in a non-equivalence of samples, since groups could differ on meaningful values at baseline. To compensate, an effort was made to match groups on relevant control measures, such as age and gender. This effort resulted in a quasi-experimental pre-post-control-group-design for Study 1.

6.3.2 Participants

Participants were 27 children (girls = 37%, ages 3-6; $M_{\text{age}} = 59.3$ months) in the intervention group (IG) and 26 children (girls = 50%, ages 3-6; $M_{\text{age}} = 63.0$ months) in the untreated control group (CG), the total sample was 53 children. Participants were recruited from four local kindergartens in Münster and assigned to a group (intervention vs. control), depending on their kindergarten affiliation and presence of the parental permission for participation. One participant was excluded from analyses of the Tools of the Play Scale (TOPS) and test of theory of mind and emotion (EPT-task) because data were lost due to a technical error at the time of post-testing. Of the remaining participants, two children did not complete the Knowledge of Emotional Expression Indicators (KEEI) task at pre-test and four at post-test, and three children did not complete the TOPS task at post-test; each of these children was excluded from the analysis of only that task. All other participants completed all study tasks. Hence, there was no systematic attrition. The sample-size was the same at pre- and post-test. Prior to the beginning of the study, parents gave informed consent, and children gave verbal assent for each time of measurement.

6.3.3 Intervention

The primary objectives of the intervention was to foster children's socioemotional competences thru enhancing their emotion awareness and regulation abilities, by (1) enhancing children's role-play competences thru mediation and guided use of the *Tools of the Play*, by (2) providing numerous opportunities to act out emotional episodes, while experiencing them as controllable, which fosters psychological distancing from own directional sensations, and by (3) making situational and motivational causes of emotions come alive in play, in a way that children can cope with and enjoy, helping them understand all components of an emotion,

The play intervention was conducted in May and June of 2014 and contained 10 lessons, of which two were delivered a week by two trained adults, one functioning as the main PL and the other as support. The conceptual intervention model of the pilot version was preserved but the curriculum components, the group management elements, the individual treatment-group size, and the length of an individual session modified to be more developmentally appropriate for the preschool setting (see chap. 4.3 *Adaptations* for more details). An overview of the 10 modules and the playable plots is given in Table 4, the numbering of the plots follows the chronological events of the stories. As in the Pilot Study, selected plots entailed an emotion episode, since the intervention focused on the enactment of emotion episodes. The selected emotions were drawn from the childhood emotions in Table 1 (chap. 3.4). In the enactment of the plots we focus on four emotions (fear, anger, joy, and triumph), but in numerous variations. For instance, when the wolf falls into the well and the little goats dance happily around it, what they are experiencing is *malicious glee*, which is an emotion derived from the family of joy-related emotions. During the time of the intervention, no other curricula or programs addressing the socioemotional competence were conducted in either kindergarten.

Table 4: Sequence of the modules in Study 1, with the stories and selected plots. Emotions of dwarf-characters and antagonistic emotions of fairytale-characters are indicated in brackets.

Module	Story	Playable Plots (Emotions)
Introductory Stories		
1	<i>The Magic Cloth</i> Dramatized reading of full story and incorporated enactments	(1) Exploring cloths (2) Magical flower (astonishment) (3) Converting into goats, hiding from the wolf (fear) (4) Converting into wolves (aggression)

2	<i>The Dwarf-Forest</i> Dramatized reading of full story and incorporated enactments	(1) Converting into dwarfs (2) Scolding Fauli (dwarfs: anger) (3) Begging Fauli (dwarfs: pleading) (4) Climbing over logs (5) Wading through river (6) Crossing over canyon (fear ⇒ courage as conquered fear) (7) Fear of dark cave (fear) (8) Courage-song (courage as conquered fear) (9) Collecting gems from cave (joy ⇒ admiration) (8) Way home (<i>optional</i>)
3	<i>The Stolen Treasure</i> Dramatized reading of full story and incorporated enactments	(1) Converting into dwarfs (2) Waking up Fauli with an “earthquake” (Fauli: fright & dwarfs: amusement) (3) Climbing over logs (4) Wading through river (5) Crossing over canyon (fear ⇒ courage as conquered fear) (6) Courage-song (courage as conquered fear) (7) Searching for gems (dwarfs: fright & anger) (8) Dwarf-drums (dwarfs: accusation ⇒ indignation) (9) Fauli is ashamed & returns gems (Fauli: guilt, shame & dwarfs: forgiveness ⇒ joy) (10) Way home (<i>optional</i>)
The Wolf and the Seven Goats		
4	<i>The Wolf and the Seven Goats</i> Dramatized reading of full story and subsequent enactment	(8) Wolf falls in the well (goats: joy) (8) Repetitions: Wolf falls in the well (wolf: pain ⇒ fright & goats: joy)
5	<i>The Wolf and the Seven Goats</i> Dramatized reading of full story and subsequent enactment	(3) Wolf knocks with white paw (all children played the little goat who was not eaten) (goats: fear) (4) Wolf eats and sleeps (children could play bigger goats and get eaten) (goats: fear) (4) Repetition: Wolf eats and sleeps (wolf: aggressive anger, voracity ⇒ satisfaction & goats: fear) (8) Wolf falls in well (wolf: pain ⇒ fright & goats: joy)
6	<i>The Wolf and the Seven Goats</i> Introducing playworld, by naming play-locations, -actions & providing role-props, planning of plots, summary of plot as needed	Children were asked for their plot preferences, PL made sure that all ideas were regarded. (8) Wolf falls in well (wolf: pain ⇒ fright & goats: joy)
7	<i>The Wolf and the Seven Goats</i> Free-play	After the welcoming ritual children were encouraged to play on their own, the playworld was partly set up, props and materials were available. No plot was prescribed by PL.

The Town Musicians of Bremen		
8	<i>Town Musicians of Bremen</i> Dramatized reading of full story and introduction of animal roles	No plots from the stories were enacted, but introductory sequences for enacting animals were prepared and could be chosen in accordance to children's preferences: <ul style="list-style-type: none"> - Cat catches mice - Donkey driver drives donkey to mill - Dog chases ducks - Rooster wakes up farmer
9	<i>Town Musicians of Bremen</i> Dramatized reading of full story and subsequent enactment	(1) Donkey finds his companions (animals: joy) (2) Animals sneak up on robbers house and break into robbers house (animals: fear ⇨ courage as conquered fear ⇨ aggressive anger ⇨ pride & robbers: indulgence ⇨ fright ⇨ fear) → repetitions and role-changes as desired
10	<i>Town Musicians of Bremen</i> Introducing playworld, by naming play-locations, -actions & providing role-props, planning of plots, summary of plot as needed	(2) Animals sneak up on robbers house and break into robbers house (animals: fear ⇨ courage as conquered fear ⇨ aggressive anger ⇨ pride & robbers: indulgence ⇨ fright, fear) (4) Animals chase off the returned robber (aggressive anger ⇨ pride & robber: indulgence ⇨ fright ⇨ fear) → repetitions and role-changes as desired End-surprise (each child received a gem as a reminder of fairyland).

Notes. Numbers represent the sequence of the particular plot within the fairytale.

The pretend-play intervention conducted in Study 1 consisted of 10 modules, which were implemented in 10 play sessions of 45 minutes each. The structure of each module was consistent across the 10 play session and followed the ritualized sequence reported in chapter 3.7.3 *Ritualized Sequence of a Module*: (1) Welcoming ritual, (2) dramatized reading, (3) guided enactment of selected plots, (4) closing ritual. Modules 1-3 consisted of tales specifically written for the purpose of this study. These tales were intended to acquaint the participating children with the PLs and the sequence of a module, while introducing the Tools of the Play and the creating and upholding of a make-believe world, in which one can play-act from different role-perspectives. Introducing motive perspectives of different roles from different tales, behaviors and locations were further goals of the introductory stories. In modules 4-7 “The Wolf and the Seven Goats” was used, and in modules 8-10 “Town Musicians of Bremen” was used, to create different playable plots and enact them. In each module the tale was first read in a dramatized fashion and subsequently at first the more simple plots, and gradually more complex plots, jointly enacted in the group.

Each plot was first discussed and planned with the group, roles were assigned, possible play-actions, emotion expressions, and role-relations discussed. After the elaborate planning,

the PLs first demonstrated the play-action and then joined in the enactment of the plot with the children, this way they provided models for different play actions and were able to scaffold children's play actions from the perspective of their own role. The PLs were supposed to gradually decrease the intensity of their instructions and scaffolding throughout the course of the intervention and apply the group management techniques whenever necessary. The group management techniques allowed for the main PL to interrupt the play when the process started to get out of hand or individual children did not keep to the agreements made in the planning phase. Especially the 'hush-signal'-bell helped the PL to center the children back in the circle and give new instructions. In order to implement equal instructions in the three different play groups and maintain a certain standardization, PLs used a manual where the sequence of each module was written out. Besides the standardized instructions, PLs were encouraged to react flexibly to children's needs and ideas, thus resulting in slightly different play sessions across the three play groups. Each play session was videotaped by two cameras for video supervising the PLs throughout the intervention.

6.3.4 Measures

The test battery used in Study 1 consisted of direct child assessments for role-play competence, emotional perspective-taking, and emotional knowledge, and a teacher report of children's socioemotional competence. All direct child assessments were administered in a separate room at the respective preschool, with the experimenter and the child sitting at a table at a 90° angle. Each session was videotaped for later analysis and ratings.

Direct Child Assessments: Role-Play Competence

The Tools of the Play Scale (TOPS; Seeger & Holodynski, 2014) was developed specifically for evaluating this intervention and is designed to assess children's role-play competence in the ZPD, it also served as an implementation check, to ensure that the *Tools of the Play* were mediated in the intervention. The TOPS is designed to elicit children's pretend-play behavior in a standardized one-on-one role-play situation using standardized materials and items (play-prompts) designed for each Tool of the Play (see chap. 3.6.1). In the TOPS, the experimenter initiated a supposedly spontaneous role-play with the child, where they simulated shopping in a gift shop. The child took on the role of the salesperson and the experimenter embodied the customer, the table they were sitting at served as the shop. The experimenter introduced the TOPS by saying: "Let's pretend that this (*pointing at table*) would be a shop, a shop where you can buy gifts. And you (*child*) would be the salesman and I (*adult*) would be a lady who comes over to buy a gift, okay?". In this supposedly spontaneous play scenario, the

experimenter and child engaged in joint pretend-play, but the experimenter followed a standardized script and set basic prompts in a fixed sequence. The experimenter paused after each basic prompt, providing the child with enough time to produce a play-action. If the child did not show any play-action or adequate reaction, the experimenter set two scaffolding prompts, first a metalinguistic instruction and second a model of the expected play action. If the child showed an elaborate reaction after the first basic prompt, the experimenter acted as a playmate and acted out the scaffolding prompts as regular play actions. This demonstrates the structure of the test, where each item is divided in a basic prompt and two graded scaffolding prompts, of which the first scaffolds the child verbally and the second provides a behavior model for the desired behavior. This division of items provides a scaffolding in children's ZPD.

The TOPS is divided in two parts. The first part assesses the cognitive facet or pretend-role-play with eight play items (prompts), relating to the comprehension of the sujet, getting into character (taking on a role), mental substitution of objects, and the production of suitable play-actions. The experimenter starts the play and by executing play-actions and setting the standardized prompts, the child's play-actions are triggered, such as arranging the shop using standardized materials (2 wooden boxes as shelves, 5 small gifts, 5 toy blocks that can be substituted as gifts, plastic chips as cash, a tray as a register, shopping) and serving the customer lady from the motive perspective of the salesperson. The customer lady asks for a birthday present for a child with the opposite gender, hence the child in role of the salesperson must recommend a gift that would be attractive to a child with the opposite gender. The role of the salesperson requires the execution of typical sales-behavior like cashiering, wrapping, and bagging up the purchases. The second part of the TOPS assesses the verbal and emotional facet of role-play with 10 items (prompts), namely the comprehension and production of role-language, and the expression and dramatization of emotions. The second part is introduced by the experimenter making the suggestion: "Let's pretend there had been a burglary at your store while you were gone and everything was vandalized and stolen, okay?". The plot stipulates a burglary in the shop with the respective play-actions, such as preparing the messy scene in the store (tipping over the shelves, putting most gifts and the money aside). The experimenter encourages the child to enter the store in character and to notice the break-in, then joins the play in character and guides the child's play-behavior by setting prompts. These prompts contain reporting the break-in to the police, dramatizing emotions such as shock and anger about the burglary, relief about the captivated burglar, and sympathy for the customer, who is sad about the missing gifts and, at least, joy about getting back all stolen goods.

The TOPS assesses the cognitive, verbal, and emotional facets of role-play, each scale is comprised of different items (as can be seen in Table 5). All play sections that mostly contain the arranging of the play location, object substitution, and play actions are summarized in the ‘Cognition’ scale, which assesses the cognitive facet of role-play (11 items), because they do not aim at emotion expression or role language directly. Those play sections requiring mainly the expression of emotions are summarized in the ‘Emotion’ scale, which assesses the emotional facets of role-play (4 items), and all sections requiring solely the production of role language are summarized in the ‘Language’ scale, which assesses the verbal facet of role-play (2 items). The item ‘P2-10 Joy about getting back all the stolen goods’ was excluded from analysis, because of missing values due to a systematic experimenter error. Table 5 gives an overview of play sections (items), which Tools of the Play they contain, and which of the three scales they are assigned to.

Table 5: Overview of scales and items of the Tools of the Play in the TOPS.

Scale	Items	Tools	
Cognition	P1-1	Sorting gifts in shelves	SU
	P1-2a	Substituting blocks as toys	OS
	P1-2b	Substituting cash/register	OS
	P1-3a	Recommending suitable gift for opposite gender	RO
	P1-3b	Offering further gift	RO
	P1-4	Wrapping gift	PA
	P1-5	Substituting block as cup	OS, PA
	P1-6	Substituting block as chocolate bar	OS, PA, RL
	P1-7	Demonstrating brushing with a block as comb	PA
	P1-8	Arranging the payment	PA, RL
	P2-1	Preparing messy scene in store	SU
Language	P2-6	Calling police concerning the burglary	RL
	P2-8	Reporting the police’s answer to customer	RL
Emotion	P2-2+3	Shock about the burglary	EE, PL
	P2-4+5	Anger about the burglar	EE, PL
	P2-7	Relief about the captivated burglar	EE, PL
	P2-9	Sympathy for the sad customer	EE, PL
	P2-10	Joy about getting back all stolen goods	EE, PL

Notes. P1= part 1, P2= part 2, SU= sujet (play location), RO = understanding of role, PL = understanding of plot, OS= object substitution, PA= play action, RL= role language, EE = dramatizing emotions.

The TOPS assesses children’s role-play competence and their use of the eight Tools of the Play in vivo, in a standardized fashion and within approx. 15min. The TOPS is videotaped in order to observe which tools the children elaborately use on their own, which tools they can use with support of a competent play partner (adults scaffolding in the ZPD), and which tools they cannot apply despite adult scaffolding. Subsequently, a trained judge rates each item on a

four-point scale, using a standardized coding manual, where the mean score of each facet reflects the tool use and hence serves as an indicator for individual role-play competence. The four-point scale ranges from “0 = no reaction despite scaffolding prompts”, “1 = simple reaction with scaffolding prompt”, “2 = elaborate reaction with scaffolding prompts”, to “3 = elaborate and independent play reaction”. After all play sections are coded, the role-play competence can be calculated, the TOPS provides a total mean score, a cognitive, verbal, and emotional score, for each scale a maximum score of 3 can be reached.

For analyzing the TOPS, 25% of the video data of pre- and post-test were coded by two trained graduate students, all video data was presented in randomized order and raters were blind to time of measurement and group affiliation, the remaining 75% of the video data were coded by one of the raters. For reliability analysis, Cronbach’s alpha was calculated to assess the internal consistency of the TOPS, for the ‘Total Score’ (mean of all 17 items) it was .82 at pre-test and .74 at post-test, for the subscale ‘Cognition’ was .65 at pre-test and .63 at post-test, for the subscale ‘Language’ .62 at pre-test and .31 at post-test, and for the subscale ‘Emotion’ .71 at pre-test and .57 at post-test. Kappa-coefficients (Cohen, 1960) were used to compute interrater reliability. Interrater reliability for the whole scale (17 items) between the two raters was $\kappa = .75$.

Direct Child Assessments: Emotional Perspective Taking

An adaption of Harris, Johnson, Hutton, Andrews, and Cooke (1989) narration-based test of theory of mind and emotion was conducted in accordance to the version used by Holodynski (2004). The ‘Emotional-Perspective-Taking’ (EPT) task was utilized to assess children’s perspective-taking ability in inferring emotion, as one part of their emotion-related conceptual knowledge (ibid.) and operationalized in a classic false-belief paradigm. The goal of the adapted version is twofold. First, it assesses whether children can correctly predict that a narrations protagonist “will feel happy if he or she expects to get something desirable even if that belief is objectively false, and is known to be false by the child making the prediction.” (Harris et al., 1989, p. 380). Correct predictions would show the child’s ability to consider how an emotion is elicited by the objective situation and the way that situation is appraised by the protagonist. Second, it assesses whether children can correctly predict a protagonist’s emotion by coordinating belief information with desire information, i.e. simultaneously considering beliefs and desires. Accurate predictions would show the child’s ability to consider the protagonist’s mistaken expectation, while considering whether or not that expectation coincides with what the protagonist wanted to obtain (Harris et al., 1989).

For assessing children's emotional perspective-taking ability in our study, we performed four scenarios with finger puppets; in each scenario, the puppet's emotion was triggered by a false belief (Holodynski, 2004). For the first scenario, all participants were introduced to a finger puppet, with the same gender as the child, who stored his or her favorite candy (Smarties) in a box, put it on the table of a toy house and left the scene. In the meantime, a toy mouse came along who played tricks on others and the children watched how the mouse secretly removed the candy and replaced it with pasta. The child knew that the content of the box had been replaced by an undesired food; the protagonist did not, leaving the protagonist with a false belief. Before the protagonist returned, the experimenter asked the child two control questions to check their recollection for the protagonist's desired food and the concealed content of the box, before asking the child to predict how the protagonist would feel *before* opening the box and seeing the content.

The question posed to predict the protagonist's emotion was: "When Paul/Anna (the protagonist) returns and sees the box, but before looking inside, how does he/she feel? Does he/she feel happy or sad?". The order of the emotion mentioned first was systematically varied. Followed by the question: "Yes, and why is he/she happy/sad?" to assess the child's justification for their predicted emotion. Additionally, the child's memory for the actual content of the box was checked (Harris et al., 1989). Three more scenarios followed, involving the protagonist's grandmother who liked pasta but received the candy box (not knowing that it contained pasta), a seal liking fish, but finding a nut package (not knowing that it contained fish) and a hedgehog who liked nuts and found a nut package (not knowing that it contained fish). In two of the four scenarios, the box was switched, but the desired food remained inside.

Taken together, each child had to predict a character's emotion in four conditions, in two of which the character had a positive expectation, but a disappointing content of the box, and in the other two scenarios, the character had a negative expectation, but a pleasant content of the box. Thus, for two scenarios the correct answer was *happy* and *sad* for the other two. The criterion of success was the number of correct answers, one point for each scenario with a maximum score of 4 (Holodynski, 2004). Each participant was presented with all four scenarios; the order of the scenarios was systematically varied across subjects to control for sequence effects.

Direct Child Assessments: Emotion Knowledge

A revised version of the Knowledge of Emotional Expression Indicators (KEEI; based on Janke, 2008) was administered to assess children's emotion expression knowledge. The test consists of 20 items. Each item describes either a prototypical emotional expression indicator or an emotional action readiness assignable to one target emotion (happiness, fear, sadness, anger) and is presented by a stuffed animal dragon, who needs help sorting the indicators into their respective emotion-baskets. The test follows a standardized script that the interviewer follows, which includes the cover story of the dragon in need of help and three test trails emitted by the dragon/interviewer. The original test was revised to include only visible expression indicators and exclude all invisible, internal sensations and actions readinesses, because those would have been too difficult to answer for our target group.

Prior to beginning the task, the cover story was told by the dragon/interviewer, stating that the dragon received a box full of cards and baskets by mail that he accidentally dropped before opening it, creating a big chaos, and needing help to sort the content of the box. The interviewer presented the first basket with a smiley-face asking the child which emotion the smiley depicts (happiness) and did so with all following four baskets. A fifth basket was included for items that according to the child did not fit to any emotion (joy, fear, sadness, anger), in order to make sure that they were able to identify the four basic emotions. The interviewer then read the first expression card "crying" and asked the child to which emotion that expression is assignable. Two more training trails followed (the expression indicator "smiling" for happiness and one random item for "trash"). After each expression indicator the child was asked, "When you show this expression, how do you feel?" and was instructed to sort the card in the corresponding emotion basket or the trash basket. At the end of the task, when the child sorted all cards, the baskets were stacked and protocolled after the test-session was finished. The test consists of 20 items, five items for each of the four emotions. One point is given for identifying the correct emotion for each emotion expression indicator and a score of zero for incorrect responses. For the KEEI a total score of 20 points is possible.

Teacher-Report of Child: KIPPS+R

The KIPPS+R (Seeger et al., 2014) is a teacher-report screening instrument for socio-emotional competences in preschool settings, which allows to classify children's developmental level as "age-appropriate" or as having a "developmental risk" in these competences. This 38-Item measure was used to assess children's socioemotional competence. The KIPPS+R consists of six subscales; (1) Cooperativeness, (2) Integration into Group, (3) Problem Behavior, (4) Prosocial Behavior, (5) Play Behavior, (6) Regulation Behavior. With scales (1) to (5)

consisting of six items and scale (6) consisting of eight items. For all items, responses are based on a four-point scale: 0 = never true, 1 = rarely true, 2 = sometimes true, 3 = true. The questionnaire should only be answered by a teacher very familiar with the child, since it is not about observing currently occurring behavior, but all scales reflect the child's common behavior in kindergarten and therefore most items must be answered from memory. The KIPPS+R was developed using a representative norm sample, allowing for individual scores to be compared to the cut-offs of the corresponding age group and consequently be classified as "age appropriate development" or assigned to one of three risk-groups: (1) Poor Group-Integration, (2) Problem Behavior, (3) Multiple Risks. The measure has good objectivity, reliability, and the construct validity was confirmed by factor analysis and criterion-related validity was confirmed by comparisons with other reliable, established instruments (Seeger et al., 2014). In this study the internal consistency (Cronbach's α) for all subscales was greater than .81 at pre-test and Cronbach's α ranging from .79 to .92 at post-test.

6.3.5 Procedure

Study 1 was conducted over a three-month period and divided into three phases (see Figure 4): pre-test, intervention, and post-test. Pre-tests (assessments and teacher questionnaires) took place in April, 2014 at the beginning of the project. In May and June of 2014 the pretend-play intervention was implemented in three playgroups from two preschools, children from the control group underwent their regular kindergarten program. Post-tests (assessments and teacher questionnaires) were conducted in June 2014.



Figure 4. Experimental design and measurements of Study 1.

At both pre-test and post-test a multi-method assessment strategy was employed. Two research assistants and several graduate students conducted direct assessments with all participating children individually in two half-hour sessions at the respective kindergarten. All assessments took place in a separate, quiet room within the particular preschool. During the first session at pre-test, all children completed the Emotional-Perspective-Taking task (EPT; Holodynski, 2004) and the Tools of the Play Scale (TOPS, Seeger & Holodynski, 2016). The TOPS also served as an implementation check. During the second session, the test of the

children's Knowledge of Emotional Expression Indicators (KEEI; based on Janke, 2008) was conducted. Additionally, for further insights in the general effects of the intervention on children's socioemotional competence, Kindergarten teachers completed questionnaires (KIPPS+R; Seeger et al., 2014). The same assessment battery was used at both time points. Details are given below in the *Measures* section (chap. 6.3.5).

All examiners received intensive training and were video-supervised throughout the assessments. One research assistant and one graduate student conducted the pretend-play intervention. At pre-test, each examiner assessed the children who would be in her intervention group. For post-assessment, each participant was assessed by an unknown examiner, as to avoid the influence of familiarity and prevent experimenter-bias. All measures were scored blind to the participant's group as well as pre-posttest affiliation and in randomized order.

6.4 Results

6.4.1 Plan of Analysis

In preliminary analyses, we tested for differences between the intervention and control group on key demographic characteristics (age and gender) and developmental risks in socioemotional competences at baseline to confirm that the matching of groups was successful. And all dependent variables were tested for baseline differences. For the outcome analyses, we conducted repeated-measures analysis of variance (ANOVA). The assumptions of normal distribution and homogeneity of variance for repeated measures ANOVAs were tested. The Lilliefors corrected Kolmogorov-Smirnov-test was used to test whether our dependent variables were distributed normally. The homogeneity of variances was tested with Levene's tests, but even if homogeneity of variance was not given, repeated measures ANOVAs were conducted and data parametrically evaluated, because ANOVAs are robust to violations of homogeneity in terms of the error rate (Field, 2013).

6.4.2 Preliminary Analysis: Baseline Comparisons

Table 6 shows the baseline comparisons, it provides descriptive statistics and comparisons between the intervention and control groups. T-tests were used for continuous variables (age) and chi-square analyses for categorical variables (gender and risk). There were little differences between the two conditions on demographic variables, suggesting that matching on those variables was successful. There were slightly more boys in the intervention group and the age range in the IG was slightly larger, but the differences to the control group were not significant.

Table 6. Demographic Variables at Baseline by Intervention Status.

Demographic variables	Intervention group		Control group		<i>t</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Child age (in months)	59.3	(8.1)	63.0	(9.6)	$t(51) = 1.52,$ $p = .134$
Age range (in years)	3-6		3-6		
	%	N	%	N	χ^2
Child gender (male)	63	17	50	13	$\chi^2(1, N = 53) = .91,$
Child gender (female)	37	10	50	13	$p = .341$
Developmental risk ^a	37	10	8	2	$\chi^2(1, N = 53) = 6.51,$ $p = .011^{**}$

^aThis variable indicates dichotomously, whether or not a child has a developmental risk in the socioemotional area, measured with the KIPPS+R (Seeger et al., 2014).

* $p < .05$, ** $p < .01$

There were significantly more children with developmental risk in the IG ($p = .011$), suggesting a selection-effect on part of the kindergarten teachers, who presumably pre-selected children for the IG who were ‘in need’ of support regarding their play-behavior and/or their socioemotional competence.

T-tests were also used for comparing groups on all dependent variables at baseline. There were significant baseline differences on the TOPS, $t(51) = 3.81, p < .001, d = 1.07$, and on the KIPPS+R, $t(51) = 2.14, p = .037, d = .60$. The CG had a significantly higher role-play competence than the IG at baseline (see Table 7). Baseline differences were not significant for either the EPT-task, $t(51) = -.264, p = .793, d = .007$, or the KEEI task, $t(49) = .602, p = .550, d = .172$ (see Table 8).

6.4.3 Outcome Analysis

The effect of condition on post-test scores was tested using a repeated-measures ANOVA, a 2 (group: IG vs. CG) \times 2 (time of measurement: pre vs. post) model was utilized. Repeated-measures ANOVAs were performed on each outcome variable and tested the main effects for group and time of measurement, and the interaction effect of group by time of measurement. For repeated-measures ANOVAs the reported effect size is partial eta squared¹ (η_p^2) (Field, 2013; Lakens, 2013). Cohen (1988) suggested the following classification for *partial eta squared*: small effect $\eta_p^2 = .0099$, medium effect $\eta_p^2 = .0588$, and large effect $\eta_p^2 = .1379$.

If the interaction term was statistically significant the analysis was repeated in due consideration of developmental risk, because baseline comparisons revealed a significant

¹

$$\eta_p^2 = \frac{SS_{Effect}}{SS_{Effect} + SS_{Residual}}$$

difference in the distribution of children with developmental risks across the two groups (IG vs CG, see Table 5). Hence, IG-no-risk and CG-no-risk children were compared and IG-risk and CG-no-risk children were compared separately, using repeated-measures ANOVAs. By doing so, it became possible to determine which IG-children (risk vs. no-risk) profited the most from the intervention.

Direct Child Assessments: Role-Play Competence

Table 7 provides a summary of the proximal effects of the intervention on children's role-play competence, as measured by the Tools of the Play Scale (TOPS). The mean scores for the total role-play competence and the sub-scales can each yield scores ranging from 0-3. Because a significant interaction term would reflect an effect of the intervention, only those are reported in Table 6. All results reported for the TOPS can be interpreted unreservedly, because Levene's tests were non-significant for all conducted ANOVAs and t-tests, confirming the homogeneity of variance for all groups at both times of measurements. Also, normal distribution is given, as all Lilliefors corrected Kolmogorov-Smirnov tests were non-significant.

The results for the TOPS 'Total Score' show that the role-play competence was significantly higher at post-test than at pre-test, $F(1, 50) = 53.78, p < .001, \eta_p^2 = .518$. The main effect of group on the role-play competence was also significant, $F(1, 50) = 9.71, p = .003, \eta_p^2 = .163$. This indicates that the role-play competence differed significantly between intervention and control group, the CG had a higher role-play competence than the IG ($p = .003$).

Table 7. Proximal Effects of Intervention on Tools of the Play Scale (TOPS).

Outcome measure	Pre-test		Post-test		ANOVA (group \times time)	Effect size (η_p^2)
	<i>M</i>	(<i>SD</i>)	<i>M</i>	(<i>SD</i>)		
Tools of the Play Scale (TOPS)						
TOPS Total Score						
IG	1.48	(0.42)	2.01	(0.40)	$F(1, 50) = 9.18$, $p = .004^{**}$	.155
CG	1.93	(0.41)	2.15	(0.30)		
TOPS Emotion						
IG	0.92	(0.67)	1.50	(0.68)	$F(1, 47) = 6.16$, $p = .017^*$	.116
CG	1.62	(0.65)	1.71	(0.57)		
TOPS Cognition						
IG	1.72	(0.40)	2.19	(0.41)	$F(1, 50) = 2.57$, $p = .115$	.049
CG	2.01	(0.39)	2.31	(0.31)		
TOPS Verbal						
IG	1.37	(0.73)	2.07	(0.61)	$F(1, 47) = 11.65$, $p = .001^{***}$	.199
CG	2.10	(0.58)	2.15	(0.58)		

* $p < .05$, ** $p < .01$, *** $p < .001$.

The group by time interaction was also significant (see Table 7), indicating that the change in overall role-play competence in the IG was significantly different to the change in the CG. This ordinal interaction effect is illustrated in Figure 5. To break down this interaction, simple effects analysis were performed looking at the effect of group at each time of measurement, comparing IG and CG at pre-test and post-test using independent *t*-tests. Cohen's *d* is calculated as an effect size² for all *t*-tests, because it is the most commonly used effect size (Field & Hole, 2003). Cohen (1988) suggested the following classification for a large or small effect: *d* = 0.2 (small), *d* = 0.5 (medium), and *d* = .08 (large).

At pre-test the TOPS 'Total Score' in the IG was significantly lower than in the CG (see table 7), $t(51) = 3.81, p < .001, d = 1.067$. However, at post-test that difference was not significant anymore, $t(50) = 1.37, p = .178, d = .387$, indicating that children from the IG were able to catch up with children from the CG, who had higher role-play competence to begin with. Additionally, when applying supplementary dependent *t*-test³ for each group separately, the findings indicate that, although there was a large effect size in the natural increase of role-play competence (as shown by the controls, $t(25) = -2.76, p = .011, |d| = .542$) there was a much stronger effect when participants received the pretend-play intervention ($t(25) = -8.26, p < .001, |d| = 1.62$).

² Effect sizes for all independent *t*-tests were calculated using the following equation (from Cohen, 1988), which can be used because group sizes are practically equal:

$$d = \frac{2t}{\sqrt{df}}$$

³ Effect sizes for dependent *t*-tests were calculated using the following equation (from Lakens, 2013):

$$d = \frac{t}{\sqrt{N}}$$

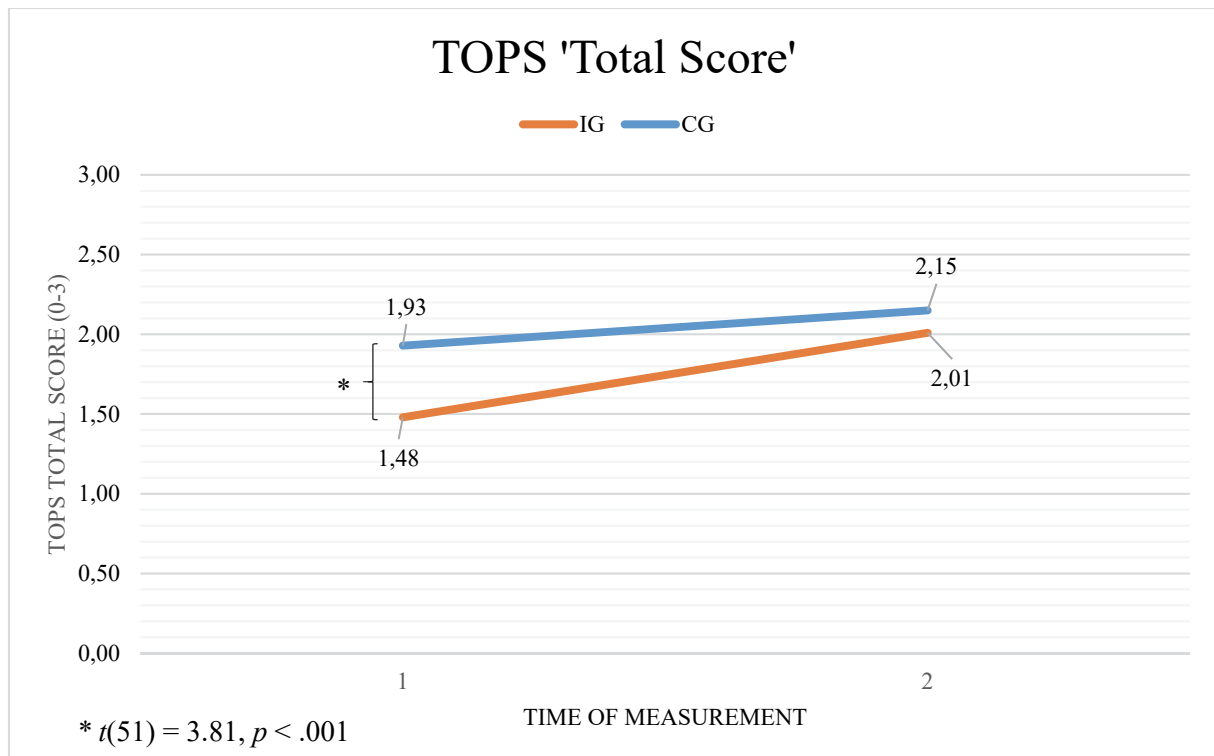


Figure 5. Mean 'Total Score' of the Tools of the Play Scale as a function of group (IG: Intervention group vs. CG: Control group) and time of measurement (pre vs. post).

This shows that, even though both groups register enhancements in their role-play competence from pre- to post-test, the pretend-play intervention fosters role-play competences more strongly than does just maturation. Additionally, the significant increase in the IG confirms the manipulation check, the Tools of the Play were successfully conveyed to children of the IG.

Detailed analysis of the interaction effect. In an attempt to determine which children of the IG (risk vs. no-risk) profited the most from the intervention, in regard to the role-play competence, IG children with no developmental risk (IG-no-risk) and IG children with developmental risks (IG-risk) were compared separately to CG children with no developmental risk (CG-no-risk), using repeated-measures ANOVAs⁴, a summary is shown in Figure 6.

The 2 (group: IG-no-risk vs. CG-no-risk) \times 2 (time of measurement: pre vs. post) ANOVA revealed a significant main effect of time, $F(1, 37) = 36.48, p < .001, \eta_p^2 = .496$. Role-play competence was higher at post-test than at pre-test. The main effect of group on the role-play competence was also significant, $F(1, 37) = 13.03, p = .001, \eta_p^2 = .260$. Children of the CG-no-risk group had a higher role-play competence than children of the IG-no-risk group. The time \times group interaction was also significant, $F(1, 37) = 7.61, p = .009, \eta_p^2 = .171$, indicating that the change in overall role-play competence in the IG-no-risk was significantly different to the change in the CG-no-risk. Simple effects analysis (using independent t -tests at each time of

⁴ CG-risk-children were excluded, because $n = 2$ is an insufficient sample-size.

measurement) showed that at pre-test the TOPS 'Total Score' in the IG-no-risk ($M = 1.43$, $SE = .09$) was significantly lower than in the CG-no-risk ($M = 1.94$, $SE = .09$), $t(38) = -4.05$, $p < .001$, $d = 1.31$. At post-test that difference was still significant, IG-no-risk ($M = 1.96$, $SE = .10$), CG-no-risk ($M = 2.15$, $SE = .06$), $t(37) = -1.73$, $p = .09$, $d = .568$, but the effect size was much smaller.

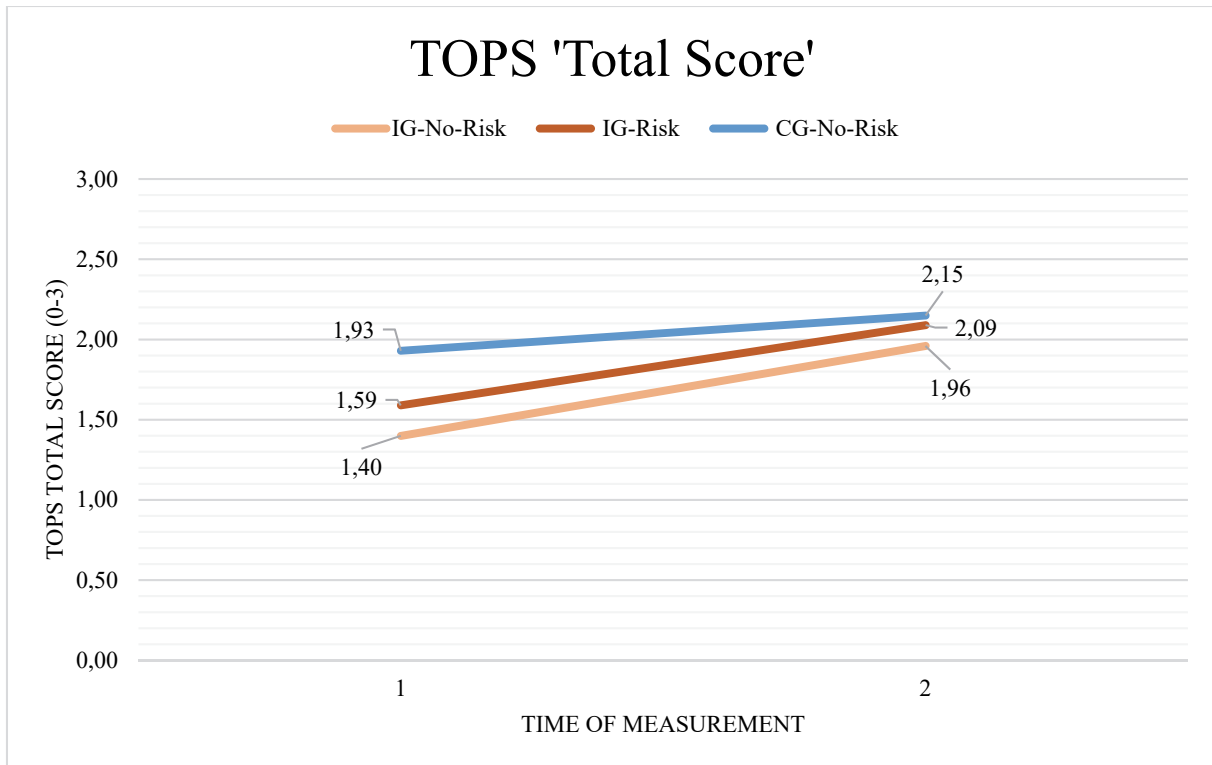


Figure 6. Mean 'Total Score' of the Tools of the Play Scale as a function of group (CG-no-risk: Control group without developmental risk vs. IG-no-risk: Intervention group without developmental risk and IG-risk: Intervention group with developmental risk) and time of measurement (pre vs. post).

In the comparison of the IG-risk and the CG-no risk, the repeated measures ANOVA also showed a significant main effect of time, $F(1, 33) = 25.69$, $p < .001$, $\eta_p^2 = .438$. Pairwise comparisons confirm that the role-play competence was higher at post-test than at pre-test ($p < .001$). The main effect of group on the role-play competence was non-significant, $F(1, 33) = 2.47$, $p = .125$, $\eta_p^2 = .260$. However, the time \times group interaction was significant again, $F(1, 33) = 4.35$, $p = .045$, $\eta_p^2 = .117$, indicating that the change in overall role-play competence in the IG-risk was significantly different to the change in the CG-no-risk. Simple effects analysis (using independent t-tests at each time of measurement) showed that while at pre-test the TOPS 'Total Score' in the IG-risk ($M = 1.59$, $SE = .15$) was significantly lower than in the CG-no-risk ($M = 1.94$, $SE = .09$), $t(33) = -2.14$, $p = .040$, $d = .745$, that difference was not significant anymore at post-test, IG-risk ($M = 2.09$, $SE = .13$) and CG-no-risk ($M = 2.15$, $SE = .06$), $t(33) = -0.43$, $p = .668$, $d = .15$. In sum, children from all groups improved their role-play competence

over time, but both the risk and the no-risk children from the IG displayed stronger increases in the TOPS than the CG-no-risk children. The findings indicate that although there was a large effect size in the natural increase of role-play competence (as shown by the controls, $d = 1.11$) there was a much stronger effect when participants received the pretend-play intervention ($d = 3.31$). This indicates that the pretend-play intervention fostered role-play competences, as measured by the TOPS, and it shows that the Tools of the Play were successfully transmitted to children from the IG. These results suggest that the pretend-play intervention had promoting effects on role-play competences of children with and without developmental risks in the socioemotional domain.

Direct Child Assessments: Emotional Perspective Taking

Table 8 provides a summary of the further effects of the intervention. We assessed children's emotional perspective-taking ability with the 'Emotional-Perspective-Taking' (EPT) task. In the EPT task we performed four scenarios with finger puppets; in each scenario, the puppet's emotion was triggered by a false belief and children had to predict a character's emotion in four conditions. The criterion of success for the EPT task was the number of correct answers, one point for each scenario with a maximum score of 4 (Holodynski, 2004). The homogeneity assumption held for each level of the repeated measures variables, because Levene's test was non-significant at both levels of time ($p = .582$ at pre-test and $p = .421$ at post-test). However, data were not distributed normally, as can be seen in significant Kolmogorov-Smirnov tests for both groups at both times of measurement, with all data being moderately skewed left (skewness from -0.632 to -1.150).

Results of a 2 (group: IG vs. CG) \times 2 (time of measurement: pre vs. post) ANOVA shows no significant differences between intervention and control children on direct child assessments of *Emotional Perspective Taking* (EPT). The main effect of time was non-significant ($F(1, 51) = 1.11, p = .297, \eta_p^2 = .021$), the main effect of group was non-significant ($F(1, 51) = .062, p = .804, \eta_p^2 = .001$), and the interaction term was non-significant (see Table 8). These results fail to demonstrate an effect of the pretend-play intervention on children's ability to consider how an emotion is elicited by the objective situation and the way that situation is appraised by the protagonist holding the false-belief, as measured with the EPT task.

Direct Child Assessments: Emotion Knowledge

We assessed children's emotion expression knowledge with a test of their 'Knowledge of Emotional Expression Indicators' (KEEI; based on Janke, 2008), which consist of 20 items. Each item describes either a prototypical emotional expression indicator or an emotional action

readiness assignable to one target emotion (happiness, fear, sadness, anger) which are presented to the child in succession. After each expression indicator the child is instructed to sort the card in the corresponding emotion category. One point is given for identifying the correct emotion, yielding a maximum score of 20. The homogeneity assumption held for each level of the repeated measures variables, because Levene's test was non-significant at both levels of time ($p = .85$ at pre-test and $p = .110$ at post-test).

As can be seen in Table 8, there were no significant differences between intervention and control children on direct child assessments of *Emotion Knowledge* (KEEI task). The main effect of time was non-significant ($F(1, 46) = 2.57, p = .116, \eta_p^2 = .053$), the main effect of group was non-significant ($F(1, 46) = 2.57, p = .116, \eta_p^2 = .053$), and the interaction term was also non-significant (see Table 8). These results indicate that the pretend-play intervention had no effect on children's ability to identify the correct emotion for each of the 20 presented emotion expression indicators of the KEEI task.

Table 8. Effects of Intervention on Direct Child Assessments and Teacher-Reports.

Outcome measures	Pre-test		Post-test		ANOVA (group \times time)	Effect size (η_p^2)
	<i>M</i>	(<i>SD</i>)	<i>M</i>	(<i>SD</i>)		
EPT-Task						
IG	2.85	(1.13)	2.85	(1.23)	$F(1, 51) = 1.11,$ $p = .297$	.021
CG	2.77	(1.14)	3.08	(1.16)		
KEEI-Task						
IG	9.50	(3.76)	9.96	(2.69)	$F(1, 46) = .289,$ $p = .596$	.006
CG	10.71	(3.48)	11.62	(3.73)		
KIPPS+R						
IG	81.17	(19.23)	86.24	(17.31)	$F(1, 51) = 5.76,$ $p = .020^*$	.101
CG	90.44	(10.91)	88.65	(12.03)		

* $p < .05$, ** $p < .01$, *** $p < .001$.

Teacher-Report of Child: KIPPS+R

The six subscales of the KIPPS together yield scores from 0-108, given that the subscale 'Regulation' consisting of eight items was adjusted to the five other subscales⁵, each consisting of six items. Levene's test indicated that the assumption of homogeneity of variance had been violated significantly at pre-test, $F(1, 51) = 14.32, p < .001$, and marginally at post-test, $F(1, 51) = 3.86, p = .055$. Therefore, results must be interpreted with caution in the view of the fact that variances of the groups are not the same (Field & Hole, 2003). However, normal distribution can be assumed, as most Lilliefors corrected Kolmogorov-Smirnov tests are non-significant, except for the IG at pre-test ($D(27) = .185, p = .019$).

⁵ This adjustment was done by dividing the sum of the 'Regulation'-scale by eight and multiplying the result by six.

As seen in Table 8, a significant interaction of group by time of measurement was found on the Teacher-Report of Child, showing a significant intervention effect on the socioemotional competences of the KIPPS+R. The main effects of time ($F(1, 51) = 1.32, p = .256, \eta_p^2 = .025$) and group ($F(1, 51) = 2.17, p = .147, \eta_p^2 = .041$) did not reach significance. To break down the interaction effect, simple effects analysis were performed looking at the effect of group at each level of time of measurement, comparing IG and CG at pre-test and post-test using independent t-tests. At pre-test the KIPPS+R 'Total Score' in the IG was significantly lower than in the CG, $t(41.5) = 2.17, p = .036, d = .674$. However, at post-test that difference was not significant anymore, $t(51) = 0.59, p = .559, d = .165$, indicating that children from the IG were able to catch up with children from the CG, who had higher socioemotional competence to begin with. Additionally, when applying supplementary dependent t-test for each group separately, the findings indicate that the CG had no significant changes from pre- to post-test ($p = .414$), but that there was a significant increase in the IG, $t(26) = -2.68, p = .012$, with a medium effect ($d = .526$). This shows that the pretend-play intervention fosters socioemotional competences, as measured by the KIPPS+R (Figure 7).

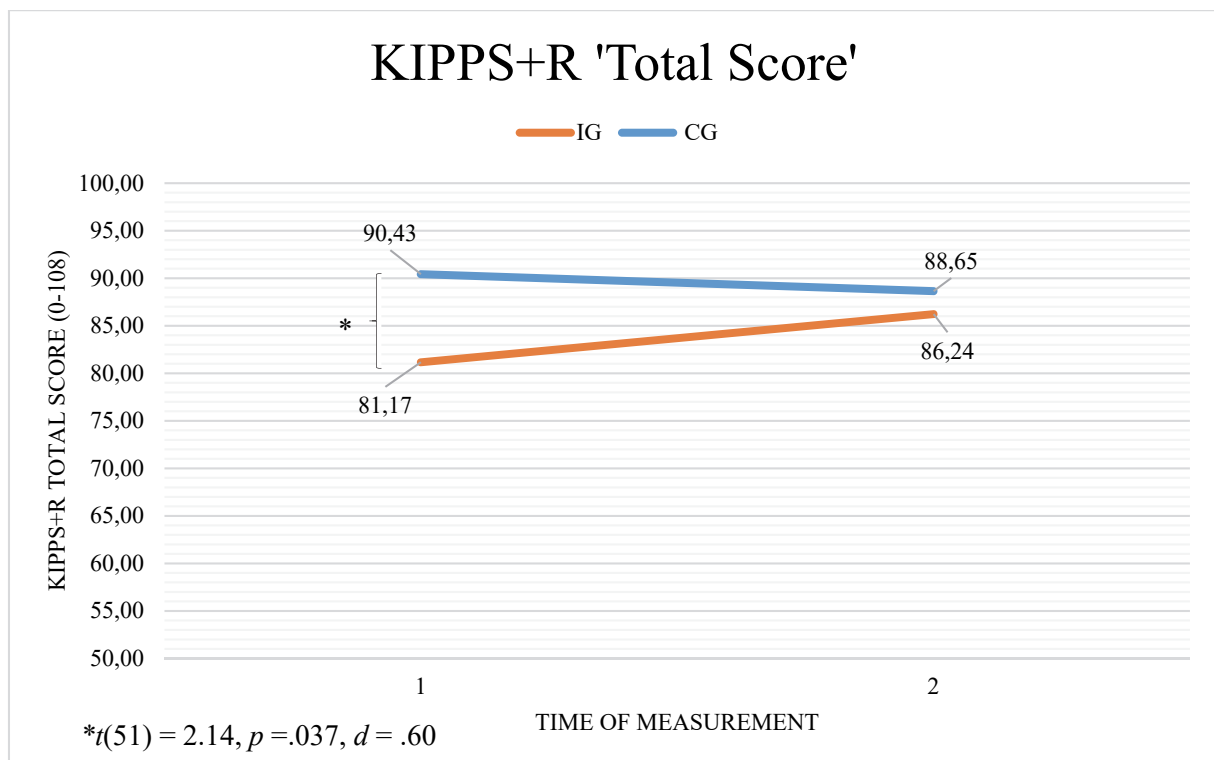


Figure 7. KIPPS+R 'Total Score' as a function of group (IG: intervention group vs. CG: control group) and time of measurement (pre vs. post).

Detailed analysis of the interaction effect. Again, in an attempt to determine which children of the IG-children (risk vs. no-risk) profited the most from the intervention, in regard to the role-play competence, IG-no-risk and IG-risk children were compared separately to CG-

no-risk children, using repeated-measures ANOVAs, a summary is shown in Figure 8. The 2 (group: IG-no-risk vs. CG-no-risk) \times 2 (time of measurement: pre vs. post) ANOVA revealed neither a significant main effect of time ($F(1, 38) = 0.023, p = .880, \eta_p^2 = .001$), nor a significant main effect of group ($F(1, 38) = 1.13, p = .294, \eta_p^2 = .029$). The time \times group interaction was also non-significant ($F(1, 38) = 2.47, p = .124, \eta_p^2 = .061$), indicating that the overall socioemotional competence did not differ between the IG- and CG-children without developmental risk and did not change over the course of the intervention.

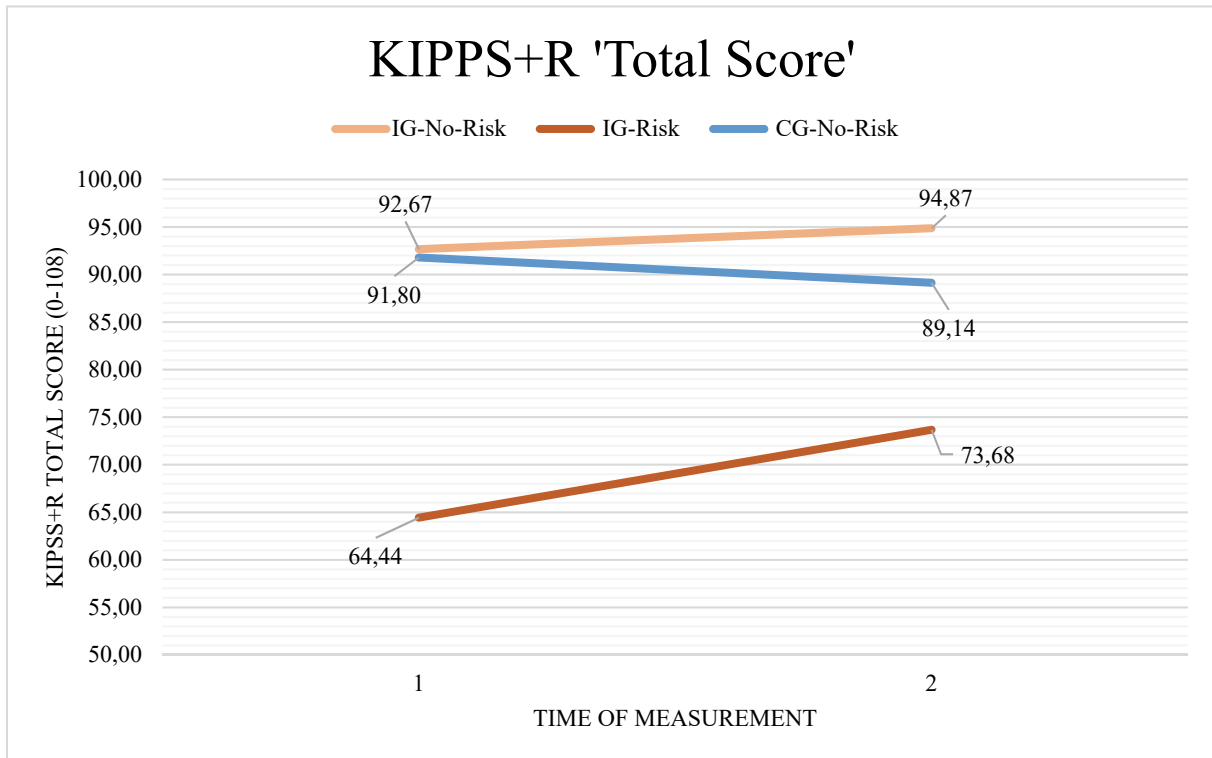


Figure 8. KIPPS+R 'Total Score' as a function of group (CG-no-risk: Control group without developmental risk vs. IG-no-risk: Intervention group without developmental risk and IG-risk: Intervention group with developmental risk) and time of measurement (pre vs. post).

In the comparison of the IG-risk and the CG-no risk children, no significant main effect of time was found ($F(1, 33) = 2.61, p = .116, \eta_p^2 = .073$), but the main effect of group on the role-play competence was significant, $F(1, 33) = 22.15, p < .001, \eta_p^2 = .402$. This result shows that the CG-no-risk had higher KIPPS+R scores than the IG-risk (see Figure 8). Additionally, the time \times group interaction was significant, $F(1, 33) = 8.57, p = .006, \eta_p^2 = .206$, indicating that the change in overall socioemotional competence in the IG-risk was significantly different to the change in the CG-no-risk. Simple effects analysis, using dependent t-test for each group separately, showed that the CG-no-risk had no significant change from pre- to post-test ($t(23) = 1.20, p = .241, d = .251$), but the IG-risk group achieved a significant increase from pre-test ($M = 64.44, SE = 4.94$) to post-test ($M = 73.68, SE = 5.84$), $t(10) = -2.59, p = .027, |d| = .781$.

However, the increase in the IG-risk was not strong enough as to catch up with the CG-no-risk. In sum, only children with developmental risks from the IG improved their socioemotional competence over time. These results confirm that the pretend-play intervention has promoting effects on socioemotional competences of children with developmental risks in the socioemotional domain.

6.5 Discussion

The major findings of this study were that the pretend-play intervention was found to improve children's socioemotional competence and their general role-play competence at post-test for the intervention group. Specifically, the intervention significantly affected the emotional and verbal facet of children's role-play, but not the cognitive facet. This was true for both children with and without socioemotional developmental risk, who participated in the guided pretend-play intervention. Albeit, these results must be interpreted with caution, they might be confounded due to the baseline-differences. Children in the IG had lower levels of role-play competence and socioemotional competence than children in the CG, therefore we cannot fully rule out that the intervention only had effects in children with lower competences in these areas.

In general, our findings are consistent with previous research findings discussed earlier indicating that pretend-play interventions can foster children's socioemotional development. The finding of positive effects on socioemotional development is particularly important in view of current concerns that problem behavior and stress-symptoms increase in young children. Our results also demonstrate that role-play can be taught and support the theory that play can be improved (Dansky, 1999; Russ, 1993), because the effect size for the pretend-play intervention was quite large compared to the regular kindergarten program. Providing evidence for the possibility of improving play competences is particularly important in view of the alarming trend that children nowadays have unlearned how to pretend-play. Results from the TOPS, which also served as an implementation check, proved that the Tools of the Play were really mediated in the intervention, hence the implementation check was successful.

In sum, we hypothesized that children who participated in the pretend-play intervention would significantly increase their role-play competence, their ability for emotional perspective-taking, and their emotional knowledge, compared to an untreated control group. We also hypothesized that kindergarten teachers would rate children from the IG as socioemotionally more competent compared to peers who had not participated in the program (CG). Now, our results only find evidence for the first and the last hypothesis, suggesting that play competences and socioemotional development can be fostered by use of an appropriate teacher-guided

pretend-play intervention. There was no evidence that our intervention affected the emotional perspective taking or the emotional knowledge. However, our findings advocate that play has a fundamental place in early childhood education.

Results from the present study are in line with findings of previous intervention research of socioemotional competences. Wadepohl et al. (2011) evaluated their prevention program *Verhaltenstraining im Kindergarten* and found that especially children with developmental risks profited from a training for promoting socioemotional competences, especially children with deficient prosocial behavior. Hillenbrand and colleagues (2009) found in their evaluation study of *Lubo aus dem All* a significant decrease in behavioral problems in their treatment group, with a stronger effect for children at risk. Likewise, in the present study only children with developmental risks who participated in the pretend-play intervention improved their socioemotional competence over time, which makes sense in the light of the higher level of socioemotional competences that children without developmental risk exhibited from the beginning and the room for improvement that children with developmental risks had. It needs to be noted that Wadepohl and colleagues (2011) and Hillenbrand and colleagues (2009) conducted behavior trainings. These behavior trainings deviate substantially from our intervention in terms of content, yet all three consistently indicate that children at risk profit the most from socioemotional intervention programs.

Nonetheless, the present study is also consistent with findings from more similar approaches, such as the work of Saltz et al. (1977), who conducted one of the only play-intervention studies. In their intervention study children were trained in one of three different fantasy activities; thematic-fantasy play, sociodramatic play, and fantasy discussion, which were compared to an untreated control condition, using various measures of cognitive development and self-regulation (Nicolopoulou & Ilgaz, 2013). Saltz et al. (1977) found that thematic-fantasy play lead to stronger increases in impulse control and other cognitive measures than sociodramatic play, which was still superior to simply reading and discussing fairytales and the control condition. Saltz et al.'s intervention was more similar to the present study in terms of content, as were the applied measures. Taken together, these studies suggest that children's socioemotional competences can be fostered by means of a guided pretend-play intervention. The pretend-play intervention is especially suitable, because it has the potential to enhance one of the core skills of socioemotional competences - self regulation.

The imaginary component of sociodramatic play contributes to the development of self-regulation as children learn to separate thought and action from external stimuli and rely on ideas to guide behavior. In play, external, concrete phenomena lose their stimulus power over the child as he or she deliberately determines the identity and significance of objects and situations. For example, in the object substitutions of make-believe, children decide whether a block represents a sandwich, a medicine kit, or a typewriter. In making these determinations, the child is no longer bound to the present or to available resources to shape his or her thought. As a result of this new-found control over “reality,” the child’s tendency to react to immediate stimuli transforms into a focus on internal ideas, and impulsive action is replaced by selectivity and self-regulation... (Elias & Berk, 2002, p. 217).

Elias and Berk (*ibid.*) further support this notion by suggesting that children most in need of improving their self-regulatory skills are those who are particularly responsive to the benefits of imaginative pretend-play, because it enhances self-restraint.

Regarding the play research, our results of the Tools of the Play Scale (Seeger & Holodynski, 2014) do not appear to be in line with correlative findings of Elias and Berk (2002), who found a strong positive effect of pretend-play on high-impulsive children, concluding that pretend-play is especially advantageous for impulsive children who lack self-regulatory abilities. In contrast, all children who participated in the intervention of the present study improved their role-play competences, regardless of the developmental risk. In fact, in the present study children with and without developmental risk equally improved their emotional and verbal pretend-play behavior, even though both role-play facets present unique challenges to the child. However, our findings that the intervention significantly affected the verbal facet of children’s role-play are in line with Smilansky’s (1978) finding that role language can be enhanced by guided role-play and with Protassowa (1991) who postulated that the pretend-play of fairytale positively influences language development.

Also, our findings that the intervention significantly affected the emotional facet of role-play are considerable, after the intervention children were able to engage in elaborate emotional role-play of prototypical emotion episodes (Singer & Singer, 1990). This finding is considerable, because it supports our postulated mode of action, which is based on the assumption that children in our pretend-play intervention become acquainted with the process of a complete emotion episode. This familiarity with the course of an emotion episode and the emotion components increases the probability of recognizing emotion indicators in oneself, turning non-reflective emotion into reflective ones, which is the prerequisite for reflective emotion regulation (Lambie, 2009).

The fact that the cognitive role-play facet increased slightly in both groups demonstrates a learning effect, but no effect of the intervention. In contrast to Hauser’s (2013) assumption

the active substitution of objects, the play-actions in play-locations, and the use of props in the intervention does not seem to be sufficient to promote cognitive role-play facets more than the regular kindergarten program does. However, another explanation for the non-finding regarding the cognitive role-play could be the operationalization in the TOPS. In the TOPS the quality of the cognitive role-play facet is operationalized rather concretely, but not directly promoted in the intervention. Consequently, in future studies either the TOPS would need to be revised and the cognitive role-play be assessed on a more general level, or the intervention revised in a way that explicitly promotes those facets. In sum, the reported results imply that the guided pretend-play intervention has diverse promoting effects on the role-play competences and socioemotional competences of children with and without developmental risks in the socioemotional domain, making it a universal and preventative program, suitable for all preschool-aged children.

Limitations and future directions. Although this study provided a novel inquiry into methods to foster pretend-play competences and socioemotional competences in preschool children, there are several limitations. Even though we have demonstrated that our guided pretend-play intervention increases children's socioemotional competence, the source of this effect remains to be determined.

One possibility is that it arose primarily from differences between the trained and the untrained children in terms of the role-play competence. Role-play has been demonstrated to have a significant influence on the formation of children's emotion regulation (Galyer & Evans, 2001), cultural skills, social values, and impulse control (LaFreniere, 2013), all of which are essential elements of socioemotional competence. In the present study, children in the intervention group spent more time cultivating their role-play abilities with the help of a scaffolding adult. Evidence for the importance of adult guidance in the formation of pretend-role-play comes from (observational) intervention studies by Lindqvist (1995) and Brédikyté (2011). Lindqvist (1995; 1996) conducted a qualitative intervention study in a Swedish day-care center over a 12 month-period, where adults deliberately influenced the children's play and created a joint playworld. Lindqvist found that by means of adult involvement in creating the playworld the quality and quantity of children's pretend-role-play increased. Brédikyté (2011) used a narrative intervention and a joint playworld to demonstrate how a 'narrative play pedagogy' approach with adult involvement in play supports child development. In accordance to Brédikyté, specifically adult guidance in joint play is important for children to transition from simple to mature play. Mature play has been demonstrated to enhance the development of

socioemotional competences (Bodova et al., 2013; Elkonin, 1978). Plus, the development of socioemotional skills can even be enhanced if children engage in teacher-guided play (Ashiabi, 2007).

An alternative possibility is that the effects in the present study arose from the fact that trained children received a structured, extracurricular activity outside their regular kindergarten activities in small groups with the undivided attention of an adult, which could have had a stimulating effect on the development of socioemotional competences (Smith, Dalgleish, & Herzmark, 1981). The possibility of finding a greater effect of pretend-play training over a no-treatment control group is in line with the considerations of Goldstein and Winner (2012) and Christie (1983), who postulate that the teacher-child-interaction has promoting effects in itself. Future studies should implement a treated- and a no-treatment control group in comparison to the treatment group in order to prove the efficacy of the intervention. Ideally, future studies would use a treated control group with the same contents as the treatment group, in other words the same stories and fairytales would be read in the same dramatized fashion as it is done in the treatment group, except that the stories would not be enacted after the reading. Thereby, potential findings could prove a clear and unambiguous effect of the pretend-play element of the intervention and it could be completely ruled out that neither the adult-attention nor the dramatized reading are responsible for the effects.

Another aspect to consider is that there was a large effect size in the natural increase of role-play competence, yet there was a much stronger effect when participants received the pretend-play intervention. However, the strong main effect of time and the large effect size in the natural increase of role-play competence might be indications that the TOPS served as a mini-intervention in itself. This mini-intervention that the TOPS probably provides can also be termed 'testing-effect' (McDaniel, Anderson, Derbish, & Morrisette, 2007) or 'pre-testing effect' (Piwowar & Thiel, 2014), where pre-testing serves as a treatment in its own. The testing-effect in our study could mean that children learn how to use certain Tools of the Play simply by conducting the TOPS repeatedly with the help of the experimenter, who scaffolds the child's performance in the ZPD, thus promoting the children's role-play competence. The presumption of the testing-effect in the TOPS is supported by Oerter (2007), who stated that play is the ideal region of the ZPD, if more competent play partners scaffold the play. He further explained that if scaffolding in the ZPD is applied, the child will reach the next higher play level, taking a leap beyond the current developmental level. The presumption of the testing-effect is also supported by the structure of the test, where each item is divided in a basic prompt and two graded scaffolding prompts, of which the first scaffolds the child verbally and the second provides a

behavior model for the desired behavior. This division of items provides a scaffolding in children's ZPD, whereas it would serve less of a mini-intervention if it was not for the scaffolding prompts. As a result of their classroom studies, McDaniel et al. (2007) concluded that testing could be used to promote learning, not just to evaluate learning, which could also be true in the case of our TOPS. This testing-effect cannot not be ruled out, because the TOPS was a novel measure for assessing pretend play, hence no comparisons can be drawn.

While the TOPS proved to be reliable and rigorous, it is impossible to draw direct comparisons to past studies that also looked at pretend-play competences but used different measures. Future studies should additionally add an established measurement of pretend-play to their test battery, to determine if comparable findings occur. The adding of another pretend-play measure would not only serve as a validity check for the TOPS itself, but also augment the utility of this novel measure. Also, the TOPS is a structured and strictly guided measure, where the experimenter applies constant scaffolding. Plus, the TOPS does not exhibit the features of typical play, such as spontaneous occurrence in interaction with peers in private situations, and accompaniment by joy and voluntariness (Elkonin, 2010). Hence, in the TOPS the real role-play competence of the child might be influenced by the artificiality of the play setting and the presence of a rather unfamiliar adult, causing the child to stay below his or her real potential. However, all raters who coded the TOPS were encouraged to consider this in their ratings and the methodological advantages outweigh, because the structured approach provides the only possibility to assess the Tools of the Play pointedly. Another advantage of the TOPS is that it requires a fundamental, but not elaborate level of language (Einsiedler, 1999), making it a suitable assessment for children with different language levels and mother tongues. Future studies would profit from adding another measure that assesses child's play in a free-play situation, without the experimenter's involvement and scaffolding.

In regard to the remaining measures of our test-battery, our results failed to demonstrate that the intervention affected children's emotional perspective taking, as measured with the EPT task, or their emotion knowledge, as measured with the KEEI-task. However, data from the EPT task were moderately skewed left at pre- and post-test, which indicates a build-up of high scores (the median was at 3 (out of 4 possible) point at pretest, and slightly above 3 at post-test). This accumulation of high scores could be an indication that the tasks might have been too easy for children, hence not suitable for depicting potential changes. For the KEEI it can be said that the verbal instructions given in the test require a translation of verbal information into the imagination of an expression, which could cause a mental overload for children that age, which could result in very low outcomes for both groups.

Another possibility is that both emotion-related outcomes were not adequately targeted by the present intervention. Also, the outcome variables may have been too far removed from the intervention procedures, thus not sensitive for the changes induced by the intervention, or the processes that were targeted in the intervention (such as taking the motive perspective of someone else, recognizing situational emotion-eliciting causes, and prototypical expression of emotions) were not adequately measured by the applied tasks. Future studies should apply more sensitive measures that really cover processes that are targeted in the intervention, for example Ronfard and Harris (2013) came up with a 'Little Red Riding Hood' (LRRH) experiment, which assesses children's theory of mind and their ability to attribute emotions to the character of an unfolding narrative. More specifically, in the LRRH experiment children are reminded of the story and asked how Little Red Riding Hood feels as she walks closer to grandmother's house. By using the LRRH task, Ronfard and Harris (2013) were able to show that children's tendency to misattribute emotions increases as the character of the story approaches an unexpected outcome – the wolf instead of grandmother (Harris, de Rosnay, & Ronfard, 2014). This experiment could be used in future studies, it also measures emotional perspective taking, but is more sensitive, because of the varying distance to the unexpected outcome and the increased level of difficulty, hence not as easy as the EPT task administered in the present study. Also, emotion regulation was only assessed by teacher ratings (using the KIPPS+R). Since emotion regulation is a central construct of socioemotional competence and the declared goal of the intervention is to foster such, it would be necessary for future studies to verify a gain in emotion regulation experimentally as an effect of the intervention.

Furthermore, there are several limitations regarding the design of the study. The sample size in this study was rather small, and while a treatment and a no-treatment control group were compared, it failed to ensure a matched distribution of children at risk (in their socioemotional development) across the two groups. Thus, it is difficult to determine if observed findings relate solely to children at risk. Likewise, if this kind of intervention is only effective for children at risk, then this study would be underpowered to detect this effect, since preliminary analyses of baseline differences showed that children at risk were completely underrepresented in the no-treatment control group (37% in the treatment group versus 8% in the no-treatment control group).

Consequently, future studies should ensure a consistent matching of groups on all relevant measures (like age, gender and socioemotional competence) in order to attribute the efficacy of the intervention more clearly and unequivocally, and to prevent the selection-effect on part of the kindergarten teachers, who in this study pre-selected children for the IG who were most in

need of enhancing their play-behavior and their socioemotional competence. This selection-effect, or selection bias of the teachers might have been responsible for systematic differences in participants' socioemotional competences at pre-test, which threatens the external validity of this study (Campbell & Stanley, 1966). The selection-effect might also have been the reason for the baseline differences on the TOPS and KIPPS+R, the two measures where we detected intervention effects. Therefore, we have to interpret those with caution, because the internal and external validity are compromised and no causal relationships can be determined. Also, in addition to matched treated- and untreated control groups, a third time of measurement (follow-up-test) should be added in future studies, in order to examine whether or not the intervention has long-term effects.

Additionally, the quasi-experimental design poses a threat to the internal and external validity of the study. Our design was quasi-experimental, because we were not able to assign children at random to intervention or control conditions, the internal and external validity might hence be confounded (Campbell & Stanley, 1966), therefore future studies should realize an experimental design, with randomized assignment of participants.

Finally, there are several limitations regarding the intervention itself. For the purpose of this study, the intervention was only formatively evaluated, conclusions were drawn from the experience-reports of the play leaders and from the videotaped play sessions. The formative evaluation of the Study 1 resulted in the following changes of the intervention-elements for future implementations of the intervention:

(1) *Group sizes should be reduced and the intervention be conducted by only one PL.* In the present study, we conducted the intervention in three different groups; one with 8, one with 9, and one with 10 children. Each group was led by two adults, one acted as the main PL, the other one as support. However, even though the group size was already reduced after the Pilot Study, it was still too large. Even with two adults, it was difficult to keep a group of 8-10 children focused and engaged in play for the period of an intervention module. Not every participating child was engaged at all times, often causing problem behavior and distractions for the whole group. We therefore suggest that an intervention group should consist of 6 children and be led by one adult. This is due to economic reasons, because the intervention is to be conducted by preschool teachers in the future and the teacher-child ration in preschool would not allow for two adults to care for six children. Also, in future studies participating children should be between four and six years, because the starting point of elaborate role-play is at four years (Hauser, 2013). This is supported by the observation that three year-olds in the

present study seemed to have a hard time enacting emotions, they were more preoccupied with play-actions and props, but not receptive for pretend-play of emotional contents.

(2) *Individual modules should still be shortened.* The length of a module might have been an issue especially because group sizes were too large. Which is why these two aspects go hand in hand. Even though the length of a module was already shortened as a consequence of our experiences from the Pilot Study, but apparently 45 minutes were still too long. After 45 minutes, children were still exhausted and not receptive. We therefore propose to shorten an individual module to 25 minutes. 25 minutes seem to be enough time to engage children in play, but not too long as to over-stimulate them. However, in order to ensure an appropriate total intervention period the total amount of modules would need to be increased to compensate for the shorter individual intervention time.

(3) *Complexity of instructions should be reduced and more time for children's own ideas and plot-repetitions be granted.* The instructions in the present study seemed to be too unstructured and complex, therefore overextending children's attention span. This became apparent in children's restlessness during longer instruction-periods, in those cases some children started to turn away from the group and lost focus. It required a lot of co-regulative effort from the PLs to center those children again and prevented the rest of the group from starting the play, causing the whole group to lose focus. In order to prevent these kinds of disruption, we suggest to clearly structure the instructions in a standardized way, as to establish a familiarity with the instruction-behavior from the beginning, so that they always know what to expect next. While standardizing the instructions, it is also important to abbreviate them, as to not lose individual children's attention throughout the instructions. By shortening the instructions, more time is available to play. This extra play time should be used to repeat individual plots several times and include children's own ideas. The PLs impression in this study was that when children were allowed to contribute own ideas they profited the most.

(4) *Preparation of intervention room should be more thorough.* In the present study, the gyms of the preschools were used to conduct the intervention in, because it was the largest room in both institutions. However, the gym contains an abundance of distracting elements, such as wall bars, floor mats, vaulting horses, different balls, swings, mirrors, etc. Some of those elements can be used in the intervention, but the rest should be put out of sight, as to not distract children any further.

(5) *The intervention manual should be unified and instructions more standardized.* As mentioned above, instructions in the present intervention were not sufficiently structured and standardized, leaving children confused and unfocused at times. In order to prevent this from

happening, future studies should orient themselves by existing programs. As mentioned in chapter 2.4.1.7 *Conclusion*, most existing intervention programs work with structured manuals, which ensure a consistent and gradual implementation of the programs contents, as intended. In those manuals, the sequence of the units is clearly prescribed based on content-related criteria, without leaving too much room for individual interpretation. Avoiding subjective interpretations and ensuring an implementation of the intended intervention contents is especially important for future evaluation studies (Fagan, Hanson, Hawkins, & Arthur, 2008). If the manual for our intervention was more structured we could maintain a certain quality in the dramatized reading of the stories, the instructions, a consistent application of the group management techniques, and the scaffolding of children's play actions. Additionally, before the intervention is conducted the play leaders should receive an extensive training, which schools them in the implementation of the program.

Conclusion. The present study provides a first systematic evaluation of a fairytale-based pretend-play intervention and has proven to be promising in promoting both role-play and socioemotional competences. However, the abovementioned changes of the test-battery, the design, and the intervention program should be made, before the intervention is conducted again. Future studies with more rigorous intervention designs, a more elaborate test-battery, and an optimized intervention are vital in providing evidence for the crucial role of guided pretend-play in preschool settings. Providing this evidence is important for the encouragement of preschool teachers to apply the play-based intervention and to engage in joint pretend-play with the children. It is to be expected that the play-based approach finds a wider acceptance in participating children, preschool teachers, and parents, than cognitive curricular for fostering socioemotional competences. In conclusion, the pretend-play intervention evaluated in this study is a promising approach emphasizing the intentional development of pretend-play competences as a prerequisite for the development of socioemotional competences, demonstrating that play has an important place in early childhood education.

7 Study 2

7.1 Introduction

Although Study 1 and Study 2 have central features in common, the latter was not designed as a direct replication of the first. For Study 2, we used our experience from the Pilot Study and Study 1 and the analysis of the quality of teachers' scaffolding and its influence on children's play behavior that led to some changes in the program, particularly in the teachers' scaffolding-techniques. In addition, the findings from Study 1 led to a change in some measures for Study 2. For instance, a more open play assessment was added in addition to the Role-Play-Assessment. We were interested to find out, whether children could transfer the acquired play competences from the co-regulated setting of the intervention onto an alone play situation. Therefore we added the Affect-in-Play-Scale – Preschool version (APS-P; Russ, 2006), to assess children's play competences without the influence of scaffolding. Also, different measures for emotion knowledge and emotional perspective taking were administered, because the ones used in Study 1 were not suitable to detect intervention effects.

In Study 2, we investigated whether pretend-play training is causally implicated in fostering play competences and socioemotional competences in preschool children, using a methodologically complete design and an optimized intervention. We realized a treated control group, which was implemented to make sure that positive results from Study 1 were not due to the stimulating effect of a structured extracurricular activity. This treated control group received the same treatment as the play intervention group, except for the play elements. Hence, we compared the play training to a dialogic reading training, which was designed to match the framework conditions of the play intervention exactly, except for the play elements. By comparing these two groups we wanted to demarcate the efficacy of the dramatized reading from the dramatizing of emotions in play, which allowed a detailed inspection of the mode of action of 'play'. More specifically, we were able to evaluate the isolated effect that play itself could have on the development of socioemotional competences, as operationalized in this study. Additionally, both trainings were compared to a no-treatment control group.

Also, the changes proposed in the discussion of Study 1 (chap. 6.5) were realized before Study 2 was implemented. (1) *Group sizes were reduced and the intervention was conducted by only one PL.* In Study 2 we tested 4- to 6-year-olds, because we saw in the Pilot Study and in Study 1 that especially the 3-year-olds had a hard time following the emotional plot, which is supported by Singer and Singer's (1990) observation that children only start to be able to take

someone else's perspective at four years. Thus, 4-6 are the ages at which a play training is most likely to have an effect. At the same time, we decreased the size of an intervention group to six children, to enable individual guidance and scaffolding, and facilitate group management. Furthermore, we tested whether this play intervention could be conducted by one PL, as to increase the ecological validity, because eventually preschool teachers are supposed to conduct the program and since they have limited personal it is important to design the program in a way that it is realizable for one person.

(2) *Individual modules were shortened and the total intervention period extended.* In Study 2 we also tested the feasibility of prolonging the intervention period to two months, while abbreviating individual training sessions to 25 minutes. The shorter play-sessions were supposed to prevent overextension of children's concentration and attention span, thus maintaining a higher quality of play in a shorter period of time, but for a longer total intervention period (two months).

(3) *Complexity of instructions was reduced and more time for children's own ideas and plot-repetitions given.* In Study 2 we used the results from the video analysis and clearly structured the instructions in a standardized way and abbreviated the instruction periods in general, hence the instructions were more straightforward in Study 2. The shortened instructions allowed for a faster starting of the actual play, leaving more time for repetitions of individual plots. In the new manual, the PLs were encouraged to give room for children's own ideas and involve them in the planning process (more on the revised instruction behavior in chapter 6.3.4. *Intervention*).

(4) *Thorough preparation of intervention room.* In Study 2 the PLs were better trained to recognize which elements could be included in the intervention setup and which elements were to be put away, because they threatened to be too distracting external stimuli. To prevent unnecessary distraction, the PL turned the room into a 'fairyländ' before each play session by setting up the fixed props and the flexible props in accordance to the respective fairytale. Depending on the fairytale, fictive play-locations were marked in the room, as to remind the children of the places throughout the play and role-props for the various roles were prepared (see chapter 3.6.4 *Materials used in the Intervention*). All other distracting elements of the room were removed as far as possible.

(5) *The intervention manual should be unified and instructions more standardized.* In Study 2 we used all information from the Pilot Study and results from Study 1 to revise the manual, resulting in stronger standardizations regarding the quality of PL's instructions and

scaffolding. That way a consistent delivery in future implementations by preschool teachers can be ensured.

7.2 Hypotheses

We hypothesized that children who participated in the pretend-play intervention for two months would exhibit significantly better skills at post-test and follow-up-test in four domains, compared to an untreated control conditions: play competence, emotional perspective-taking, emotional knowledge, and self-regulation. Additionally we examined, whether children in the IG would do better in post- and follow-up test in comparison to the treated control group (TCG), because the latter had also been exposed to the dramatized reading of various fairytales over the period of two month, which could have effected their performance. We also hypothesized that kindergarten teachers would rate children who participated in the pretend-play intervention as socioemotionally more competent compared to peers who had participated in the dialogic reading and children who had not participated in any program.

Hypothesis 1: First, elaborate role-play enhances emotion awareness and is thereby crucial for fostering socioemotional competences (Bodrova & Leong, 2010; Galyer & Evans, 2001), which is why the present pretend-play intervention focused on scaffolding children's role-play. Role-play does not necessarily develop spontaneously, but is the result of social interaction, preferably with the help of an adult model (Ashabi, 2007; Hakkarainen et al., 2013; Weisberg et al., 2013b). Adult's scaffolding in joint role-play with children increases children's play competences and leads to more elaborate and complex play (Bornstein, 2007; Fiese, 1990; Fthenakis & Textor, 2000). In our pretend-play intervention, adult's scaffolding was the underlying mechanism, the Tools of the Play were transmitted to children, which should enable them to produce independent, elaborate role-play. Plus, in the intervention they had numerous opportunities to observe prototypical expressions of emotions in the PL and imitate them, complex emotion eliciting situations were enacted, perspective taking enhanced by taking on characters and acting from their motive perspective and therefore we expected a general increase in children's role-play competences in a structured play assessment (TOPS). Additionally, we want to examine to what extend children could transfer the acquired role-play competences from the pretend-play intervention onto everyday situations. For economic reasons no open behavior observations of all 97 participants could be realized, instead we administered a more open play assessment (APS-P) to test how extensive the intervention-experiences could be. If children were able to transfer and apply what they have learned onto

alone situations, we expected that to be reflected on the APS-P, children from the IG were expected to reach higher APS-P scores than children from the control groups.

Hypothesis 2: Second, in elaborate play children take on characters and act from the perspective of the chosen character, with the respective emotions, and always in relation to the other characters in the play (Bretherton, 1989). Taking on a character requires a structured and integrated understanding of mental processes, it requires a Theory of Mind (ToM), which was illustrated in chapter 4.2 *Expectation 2: Emotional Perspective Taking*. Research on children's ToM has revealed a steady developmental series with respect to children's understanding of the cognitions and emotions of protagonists who misinterpret the situation they are in. "Three-year-old children typically fail to attribute false beliefs to the protagonist, whereas most 4- and 5-year-olds succeed" (Ronfard & Harris, 2013, p. 2), but fail to correctly attribute emotions to a protagonist holding a false belief. In every module of the intervention, children took on different characters and executed numerous changes of roles throughout the intervention, learned to distance themselves from their emotion urges and take the emotional perspective of the assumed character, regardless of their own emotions, especially in situations where an antagonistic character threatens to harm the assumed role. As part of the test-battery, we administered a task where children were asked how Little Red Riding Hood feels as she walks closer to her grandmother's house, hence closer to the wolf that she does not know about. We expected an improvement in the attribution of emotions to the character of little Red Riding Hood in the intervention group (IG) at the near distance to the wolf, because we hypothesized that the intervention would enhance children's attribution of emotions to story characters and less susceptible to the effect of distance, compared to the TCG and NCG, because role-play enhances ToM and empathy (Goldstein & Winner, 2012), and children of the IG gradually learned to take the emotional perspective of many different characters and regulate their dominant impulses.

Hypothesis 3: Third, in elaborate play the prototypical expression of emotions is practiced and at the same time verbally labeled in the preceding planning of the play, also role-play enhances empathy (Goldstein & Winner, 2012). Empathy, recognizing emotion expressions, and the ability to use the vocabulary of emotion are crucial aspects of emotional competence (Saarni, 1999) and can be subsumed as emotion knowledge. In the role-play of emotional plots a full emotion episode is reenacted (see chap. 3.4), teaching children about situational causes of emotions, how to express them bodily and facially, what the antagonist feels and what that expression would look like, how the antagonistic emotions are called and expressed (see Table 1 in chap. 3.4). In the pretend-play intervention prototypical expressions of emotions were

repeatedly observed in the PL and imitated by the children, complex emotion eliciting situations were enacted, perspective taking enhanced by taking on characters and acting from their motive perspective. We therefore expect that children's general emotion knowledge and understanding of emotion eliciting situations would be fostered in the pretend-play intervention.

Hypothesis 4: Elaborate pretend-play is pivotal in children's acquisition of self- and emotion regulation (Berk et al., 2006). In pretend-role-play children create an imaginary situation, where they not only carry out as-if actions, but plan their play in advance, take on and act out roles, while following the set of rules determined by the respective role, all while re-enacting emotionally charged events of the plot. Mature play supports the development of self-regulation by creating a situation in which children cannot be driven by their need for instant gratification, but in order to follow the rules of the play and the rules of their role, they need to suppress their immediate impulses. Suppressing impulses requires children to volitionally inhibit behavior that is not part of their role, but to act deliberately and intentionally. This intentional behavior and planning can be seen as an antecedent to reflective thinking, which is an important aspect of self-regulation (Goldberg as cited in Bordova et al., 2013). We administered a delay-of-gratification task, where children were not allowed to touch attractive toys, and expected children from the IG to have a higher latency until they would touch the toys for the first time, more waiting, and less touching in general, because in the intervention the self-regulation was trained in regard to distancing oneself from dominant impulses.

Hypothesis 5: Numerous studies concluded that pretend-role-play is essential in fostering socioemotional competences in preschoolers (Bodrova & Leong, 2010; Chinkesh et al., 2014; Denham et al., 2003; Howes & Matheson, 1992). In scaffolded pretend-play, children learn to plan their play in advance, which helps to prevent conflicts, by talking about possible conflicts instead of fighting, which teaches social problem-solving strategies (Leong & Bodrova, 2012). Saltz et al. (1977) assumed that it is especially the changes of roles in elaborate pretend-play that has positive effects on children's socioemotional competences. Because children were trained in the planning and enactment of pretend-role-play (the Tools of the Play were mediated, children played various different characters throughout the intervention, and were encouraged to change roles within each intervention module), we expected that our pretend-play intervention would lead to a significant increase of socioemotional competences in the IG at post-test, in comparison to a treated (TCG) and an untreated control group (NCG). For all hypothesis, we expected the improvements of the IG to last beyond the time of post-test, therefore we expected for the superiority of the IG over the TCG and NCG to still be present at

follow-up. The abovementioned hypotheses were tested with the following methods and experimental design.

7.3 Method

7.3.1 Design

Full random assignment of participants is difficult to carry out in educational settings and must therefore be abstained from (Goldstein & Winner, 2012). Six kindergartens in Münster were recruited, those institutions were randomly assigned to either the intervention- or treated-control-condition, but then individual participants could not be randomly assigned to the intervention group (IG) or the treated-control group (TCG), resulting in a quasi-experimental design. Randomization took place at the institution level and at assigning participants to either a treatment (IG and TCG) or a no-treatment group (NCG). Hence, natural groups were compared, where intervention- and treated-control-participants were recruited from different institutions, as to avoid mutual interference, but no-treatment-control participants were in the same respective location as either IG or TCG.

When assigning groups on institutional levels, one cannot expect group-equivalence on relevant measures at baseline (Köller, 2009). To compensate the potential non-equivalence of samples, we controlled for possible differences by matching groups on relevant control measures, such as age, gender, and socio-emotional competence. The latter was included as a result of selection-effects in Study 1, where educators pre-selected children for the intervention group who were ‘in need’ of support regarding their play-behavior and/or their socioemotional competence.

Additionally, Hager states that evaluations should always be longitudinally oriented, suggesting the pre-post-follow-up-design as the best design (as cited in Köller, 2009). These efforts resulted in a quasi-experimental pre-post-follow-up-treated-control-group-design for Study 2. The follow-up test was we conducted three months after the post-test to investigate the long-term effect of the intervention program. Changes in the design and the intervention resulted from the experiences and the results of Study 1.

7.3.2 Participants

A total of 97 children between 4 and 6 years were recruited from six local kindergartens in Münster (IG: $n = 36$, TCG: $n = 35$, NCG: $n = 26$). Participants were assigned to a treatment group (IG vs. TCG), depending on their kindergarten affiliation and presence of the parental declaration of consent. For the NCG, children from the same kindergartens were used. More

specifically, children for whom the parental permission for participation was present were included in the study to serve as control subjects without any kind of intervention, resulting in a smaller sample size for the NCG. Nevertheless, this procedure allowed for some randomization, since children were randomly assigned to either a treatment condition (IG or TCG) or the untreated condition (NTC).

Over the course of the study, the total attrition was two children. One participant was excluded from analyses of direct child assessments because he refused all three times of testing, and one participant declined to participate in the follow-up-test and was hence excluded, resulting in a total sample of $N = 96$. Of the remaining participants, two children did not complete the Affect-in-Play-Scale - Preschool (APS-P) at post-test and one at follow-up-test, which resulted in a sample of $N = 94$ for the analysis of the APS-P, and one child did not complete the Tools of the Play Scale (TOPS) at follow-up-test, which resulted in a sample of $N = 95$. However, teacher questionnaires were collected for all 97 children that initially enrolled in the study.

Prior to their participation, parents gave informed consent, and children gave verbal assent. Children received small gifts (e.g., gliders, bouncy balls, toy cars, stickers, etc.) at the end of each testing session for their participation. Educational professionals received Amazon-gift-certificates as compensation for repeated answering the questionnaires.

7.3.3 Intervention

In regard to the intervention's contents the PLs instructions, the scaffolding, and the application of planning-tools were optimized for Study 2. Since we found an effect of guided pretend-play on play competences and socioemotional competences in Study 1, it was important to link the outcomes to the kind of intervention mechanisms that were most helpful to children. We used this information to optimize the intervention and the teacher's instructions.

Our goal was to identify and describe instruction behavior that would foster play- and socioemotional competences, hence by rating the quality of PL's scaffolding we were able to identify good application of the Tools of the Play and to isolate three necessary steps that enable good scaffolding behavior. The manualized basic structure of the revised intervention used in Study 2 was a three-step-approach that was supposed to systematically imparting the Tools of the Play, hence foster children's pretend-play competences and emotion regulation, and consequently their socioemotional competence. The three-step-approach consisted of the following three steps:

1. *Step*: Introduction of new playworlds by dramatized reading of fairytales. The PL dramatizes the content of each tale by means of gestures, modulation of speech and posture, and prototypical expression of emotions.
2. *Step*: Joint application of Tools of the Play, by planning a selected plot from the current story. This step is essential, because it teaches children the importance of coordinating the play with the play partners in advance, instead of starting the play head-on. Planning is one of the most important features of mature play (Leong & Bodrova, 2012). This planning mostly consist of extensive discussions of who is going to do what and how, which enables the forming of the metacognitive structure for successful self-regulation, which means actions need to be planned before being executed. In other words, the planning in play can be translated to individual self-regulation, because just like in play each action needs to be planned first before it is executed. Learning this in play helps for the metacognitive basic structure for successful self-regulation to emerge and develop (see chap. 3.7.2).
3. *Step*: Repeated enactment of the planned plot. The repetition is important, because in the first (few) round(s), only the play-action is of the essence, and only after children are familiar with their roles, motives and play actions, they have free attention capacity and working memory space to focus on the enactment of the emotion within the imaginative context.

This three-step-approach was at the core of the revised intervention and the three steps were repeated in this sequence in the realization of each playable plot, providing children with numerous opportunities to observe the application of the tools first in the PL (serving as a model), then apply them themselves with PL's guidance and scaffolding, and increasingly use the tools more and more independently.

In Study 2, the intervention period was extended to 15 modules, which were delivered twice a week over a period of two months by only one PL, with each session lasting 25 minutes. In modules 1-5 the specifically written "Dwarf Tales" were used. In contrast to Study 1, two more modules were designated to the dwarf tales, which were intended to acquaint the participating children with the rituals of the fairyland (sequence of a module), while gradually introducing the Tools of the Play and the creating and upholding of a make-believe world, and the enacting of a plot from the perspective of a role. In modules 6-8 "The Wolf and the Seven Goats" was used to create different playable plots and enact them, in modules 9-11 "The Town Musicians of Bremen", and because of the extension to 15 modules, we added the fairytale "The Three Little Pigs" by Joseph Jacobs (1890), which was used in modules 12-15. Language and

plots of the fairytales were simplified in some places, but the characters and sequence of events remained intact.

An overview of the 15 modules and the playable plots is given in Table 9. The numbering of the plots follows the chronological events of the stories. However, the chronological sequence of the story was not maintained in the enactment, because the sequence in which the plot were enacted followed a specific logic, which was to always enact the Happy End of a story first, as to reassure children that no matter how scary the story, it always ends well. By this procedure children were supposed to have an easier time enacting aversive emotions of the story at a later time, because they could always call up on the memory of experiencing the Happy End. Plus, the chronological sequence of the story was not maintained, because it followed the children's interests and preferences. Respecting those interests was important, because children were not supposed to rehearse an entire story in form of a play for an audience, instead children were supposed to enact the plot for their own sake and to indulge in the joy of playing. Therefore, we only selected plots with emotion episodes that seemed interesting and captivating to children. A plot is defined through its relations between cause, emotion and action from the motive perspective of the respective character, hence each plot encompasses all facets of an emotion episode. Each selected plot entailed a complete emotion episode and was to be somehow relevant for children, hence only childhood emotions (see Table 1 in chap. 3.4) were selected for the enactment, focusing on four emotions (fear, anger, joy, and triumph) in numerous variations.

Table 9: Sequence of the Modules in Study 2, with the Stories and Selected Plots. Emotions of Dwarf-Characters and Antagonistic Emotions of Fairytale-Characters are Indicated in Brackets.

Module	Story	Playable plots (Emotion episodes)
Dwarf Tales		
1	<i>Land of the Dwarfs (Part I)</i> Dramatized reading of full story and subsequent enactment	(1) Waking up the protagonist Fauli with an "earthquake" (Fauli: fright & dwarfs: amusement)
2	<i>Land of the Dwarfs (Part I)</i> Reading plot from cards	(1) Waking up Fauli with an "earthquake" (Fauli: fright & dwarfs: amusement) (5) Courage-song (dwarfs: courage as conquered fear) (6) Read plot: The dwarfs' oath (dwarfs: strong sense of belonging)
3	<i>Land of the Dwarfs (Part II)</i> Dramatized reading of full story and subsequent enactment	(2) Discovering the theft (dwarfs: fright & anger) (3) Dwarf-drums (dwarfs: accusation ⇒ indignation)

4	<i>Land of the Dwarfs (Part II)</i> Reading plot from cards	(3) Dwarf-drums (dwarfs: anger) (5) Recovering the treasure (dwarfs: fear ⇒ courage ⇒ joy) (6) With the treasure across the wobble-lake (dwarfs: fear)
5	Free-play 1	After the welcoming ritual children were encouraged to play on their own, the playworld was partly set up, props and materials from dwarf tales were available.
The Wolf and the Seven Goats		
6	<i>The Wolf and the Seven Goats</i> Dramatized reading of full story and subsequent enactment	(3) Wolf knocks with white paw (all children played little goat) (goats: fear) → repetition with role-change (8) Wolf falls in well (goats: joy)
7	<i>The Wolf and the Seven Goats</i> Reading plot from cards	(3) Wolf knocks with white paw (all children played little goat) (goats: fear) (4) Wolf eats and sleeps (children could play wolf or bigger goats who got eaten) (wolf: aggressive anger, voracity ⇒ satisfaction & goats: fear) (8) Wolf falls in well (wolf: pain ⇒ fright & goats: joy)
8	<i>The Wolf and the Seven Goats</i> Reading plot from cards	(4) Wolf eats and sleeps (children could play wolf or bigger goats who got eaten) (wolf: aggressive anger, voracity ⇒ satisfaction & goats: fear) (5) Mother returns and searches for goats (mother: fright & fear) (6) Mother rescues goats (mother: affection, joy & goats: relief, affection) (7) Goats put rocks in wolfs stomach (goats: courage ⇒ relief) (8) Wolf falls in well (wolf: pain ⇒ fright & goats: joy) → roles could be changed between each plot
The Three Little Pigs		
9	<i>The Three Little Pigs</i> Dramatized reading of full story and subsequent enactment	(7) Wolf falls thru chimney (pigs: fear ⇒ amusement) → repetition if desired
10	<i>The Three Little Pigs</i> Reading plot from cards	(4) Wolf blows in house made of straw (pigs: fear ⇒ relief & wolf: aggression ⇒ anger) (5) Wolf blows in house made of sticks (pigs: fear ⇒ relief & wolf: aggression ⇒ anger) → repetition and role-change if desired
11	<i>The Three Little Pigs</i> Reading plot from cards	(6) Wolf fails to blow in house made of brick (wolf: anger & pigs: amusement) (7) Wolf falls thru chimney (wolf: anger ⇒ fright & pigs: fear ⇒ amusement) → repetition and role-change if desired
The Town Musicians of Bremen		
12	<i>Town Musicians of Bremen</i> Dramatized reading of full story and subsequent enactment	(3) Animals sneak up to robbers house (animals: fear ⇒ courage as conquered fear) → repetition and role-change if desired

13	<i>Town Musicians of Bremen</i> Reading plot from cards	(3) Animals sneak up to robbers house (animals: fear ⇨ courage as conquered fear) (4) Read plot: Animals scare robbers (courage as conquered fear ⇨ aggressive anger ⇨ pride & robbers: indulgence ⇨ fright, fear) → repetitions and role-changes as desired
14	<i>Town Musicians of Bremen</i> Reading plot from cards	(5) Read plot: Animals chase off the returned robber (aggressive anger ⇨ pride) <i>possibly (3) Animals sneak up to robbers house</i> (4) Animals scare robbers (courage as conquered fear ⇨ aggressive anger ⇨ pride & robbers: indulgence ⇨ fear) (5) Animals chase off the returned robber (animals: aggressive anger ⇨ pride & robber: fright, fear) → repetitions and role-changes as desired
15	Free-play 2	After the welcoming ritual children were encouraged to play on their own, the playworld was not set up, but all props and materials were available. End-surprise (each child received a gem as a reminder of fairyland).

Notes. Numbers represent the sequence of the particular plot within the fairytale.

In Study 2, each (fairy-)tale was read in a dramatized fashion only once, in the subsequent modules only the playable plots were read from the play-cards (see Figure 10), where only the particular segment of the fairytale was written, enough to remind the children of the context and to introduce the roles and play-actions needed for the enactment of the particular plot. This proceeding was partly due to the shortened length of a module and because we learned from the previous studies that children were familiar enough with the story after a singular read and that repeated reading of the full story was not necessary. All stories were altered for the dramatized reading, with directions within the manuscript, precisely indicating when to support the story visually with gestures, modulation of speech, and prototypical expression of emotions, granting a standardized implementation (see chap. 3.6.2 *Dramatized Reading of Fairytales*).

To further ensure a standardized implementation of the guided enactment of the plots and to manualize the PL's scaffolding of children's play a newly developed play-card-system was used. The play-cards were designed in alignment with the three-step-approach mentioned above, which means that all three steps could be found on one card and one card always contained the information for the instruction for one specific plot from a fairytale, for example the plot where the wolf blows in the house made of straw in "The Three little Pigs". Each play-card is structured as follows: On the front at the top the play-card provides information which socioemotional competences are targeted in the specific plot, what the external circumstances should be for the implementation of the plot, and which other competence areas are targeted by the enactment of the plot (see Figure 9). On the front in the middle, the play-cards contains the

section of the story that describes the **Plot**, which served as a basis for the passage that needs to be read. The front page also spells out the respective **Play-actions**, to provide clear models of behavior that are to be enacted by children and PL (*Step 1* of the three-step-approach), this section provides the PL with very clear and explicit ideas of the play-actions (target behavior) that are supposed to be shown by him- or herself and the participating children, supported by a photograph which depicts the target-behavior and the setup.


Fostering socio-emotional competences	The three little pigs (4) Wolf blows staw-house in Aggression and fear	Transition to other areas of competence												
<ul style="list-style-type: none"> ■ Cooperativeness ■ Integration in group □ Display of prosocial behavior ■ Developing play-competences ■ Regulation <ul style="list-style-type: none"> ■ Understanding link between intentions and emotions ■ Regulating emotion urges ■ Adjusting actions to agreed rules 	<ul style="list-style-type: none"> ■ In the gym ■ In the group room <p>From 4 years 5-7 children Pretend-Play</p>	<ul style="list-style-type: none"> □ Numbers and quantities ■ Speech ■ Volitional control of motor activity 												
<p>Plot As the mother had told them, each pig built a house out of straw, sticks and bricks. One day a wolf came along and knocked on the door of the house made of straw and shouted: "Little nice pig, lovely one. Open the door, it's easily done". But the pig answered: „Oh, I'm all alone, sitting in the bin, so I won't let you come in". The wolf said: "Then I'll puff, and I'll huff, and I'll blow your house in." And so the wolf huffed, and he puffed, and he puffed, and he huffed, and at last he blew the house down. But the little pig had run out of the little door to the house that was made of sticks, where it was safe."</p>														
<p>Play-actions</p> <table border="0"> <tr> <td>Pig(s)</td> <td>sit under under parachute-blanket, representing the house made of straw</td> </tr> <tr> <td>Wolf</td> <td>shakes the parachute-blanket; makes comments („This is not very solid.).... knocks on a chair and says: "Little nice pig, lovely one. Open the door, it's easily done".</td> </tr> <tr> <td>Pig(s)</td> <td>„Oh, I'm all alone, sitting in the bin, so I won't let you come in".</td> </tr> <tr> <td>Wolf</td> <td>stomps his feet in the rythm of the syllables and talks accordingly (I will huff and puff), shakes blanket rhythmically and speaks accordingly (I will blow your house in)</td> </tr> <tr> <td>Pig(s)</td> <td>when the wolfs starts saying „I will huff and puff." kids (pigs) escape from under the blanket and run to the house made of sticks</td> </tr> <tr> <td>Wolf</td> <td>roles up the blanket (slow enough, so that kids can escape), pretends to be surprised, sniffs and snarls and watches the pigs angrily</td> </tr> </table>			Pig(s)	sit under under parachute-blanket, representing the house made of straw	Wolf	shakes the parachute-blanket; makes comments („This is not very solid.).... knocks on a chair and says: "Little nice pig, lovely one. Open the door, it's easily done".	Pig(s)	„Oh, I'm all alone, sitting in the bin, so I won't let you come in".	Wolf	stomps his feet in the rythm of the syllables and talks accordingly (I will huff and puff), shakes blanket rhythmically and speaks accordingly (I will blow your house in)	Pig(s)	when the wolfs starts saying „I will huff and puff." kids (pigs) escape from under the blanket and run to the house made of sticks	Wolf	roles up the blanket (slow enough, so that kids can escape), pretends to be surprised, sniffs and snarls and watches the pigs angrily
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Figure 9. Example for the front page of a play-card with the description of a playable story plot.

On the back of the play-card are three sections listed in tabular form; materials, play-leader's tasks, and variations (see Figure 10). The section *Materials*, on the very left of the card, provides a list of all materials needed for the enactment of the respective plot. More specifically, the section provides information on how to set up the play location and which props to use for it, how to mark the individual roles, and specifying which further props might be needed.

The section *Play Leader's Tasks* provides all information for the instructing of the play-actions of the plot, where detailed information is given on how to implement the actions that are described on the front page. The PL introduces the play-action by applying the planning-tools and asking the following standardized questions (*Step 2* of the three-step-approach):

1. Who are you? Who are the others? (coordinating roles)
2. How can you tell that you act that role? How can you tell which roles the others act? (coordinating role-props)
3. Where are you? Where are the others? (coordinating play-locations)
4. What are you doing? How are you doing that? What are you using to do that? What are the others doing? How are they doing that? What are they using to do that? (coordinating play-actions and object substitution)

It is strongly recommended to repeat the play-action of the plot several times, as to acquaint children with their roles and the play-action, thus relieving the working memory before introducing the respective emotion of the plot (*Step 3* of the three-step-approach Children can only enact and relive emotions in a distanced manner, if they understand how the action-frame of the plot is related to the motive of the respective role. Therefore, after children are acquainted with the action-frame, the enactment of emotions can be instructed by asking the following question:

1. What does it look like, when your role feels the emotion “X”? What does it look like when the other roles feel the emotion “Y”? (dramatizing prototypical expressions of emotions)


Materials	Play Leader's Tasks	Variations
<p><u>Roles-Props:</u> Pigs: e.g. pink pig ears or pignost Wolf: gray wolf-fur</p> <p><u>Props for location:</u> House made of straw: e.g. parachute-blanket, wooden chair or wooden box as door</p> <p>House made of sticks: wooden chair or wooden box as door; Table that fits all kids underneath, covered in a big black blanket or Black blanket tied to wall bars and agreeing upon which side the small door is on</p> 	<p>Clarifying roles, locations and play-actions</p> <ol style="list-style-type: none"> 1) Who is going to be the pig in the house of straw? Who is going to be the pig in the house of sticks? 2) Where is the house of straw and the house of sticks? 3) From where is the wolf coming? 4) What does he want and what does he say in front of the house? 5) What are you going to do as a pig when the wolf blows down the house? <p>Play repeatedly before reenacting emotions.</p> <p>Enactment of „fear“ and „relief“ PL asks kids for ideas, mirrors and expands them</p> <ol style="list-style-type: none"> 1) What does a pig do when it doesn't think of the scary wolf? Demonstrating how pigs feel safe <ul style="list-style-type: none"> - Lounging on the floor - Rubbing the belly and delightful grunting 2) What does the pig do when the wolf wants to be let in? Demonstrating what a scared pig looks like <ul style="list-style-type: none"> - Eyes wide open - Drawing back from the door - Pulling up shoulders, ducking one's head, curling up into a ball 2) What does a pig do when it was saved? Demonstrating what a relieved pig looks like <ul style="list-style-type: none"> - Exhaling strongly - Putting one's feet up 	<p>PL is playing the wolf and interacting with the kids from the wolf's perspective. PL gives directions on how kids can play the pigs, e.g. wolf snuffels: „The pig is nowhere to be seen. I bet it's in the house and doesn't want to come out. What is this house made of?...<i>embellish</i></p> <p>Change of roles When kids have understood the sequence of the plot they may take the role of the wolf.</p> <p>PL asks kids for ideas, mirrors and expands them:</p> <ol style="list-style-type: none"> 1. What does the wolf do when he wants to get into the house really badly? Demonstrating how the wolf is aggressive <ul style="list-style-type: none"> - Stomping feet - Ripping with hands - Talking loudly 2. What does the wolf do when the pig is gone? Demonstrating how the wolf is surprised <ul style="list-style-type: none"> - Eyes and mouth wide open - Cursing loudly: <u>Where is the pig?</u>

Figure 10. Example for the back page of a play-card with instructions about dramatizing the story plot.

After asking the children for their own ideas of how to display the respective emotion, the PL reinforced those ideas verbally and provided models for the prototypical expression of the emotion, which the PL then practices jointly with the children. After children are familiar with the expression signs, the PL encourages them to repeat the plot and to enact the emotions in the plot. This emotional enactment can be repeated several times, with each time enhancing the intensity of the respective emotion expression. The goal is to enact the emotions in accordance to the specific situation, while keeping a psychological distance, which enables the children to feel joy even while playing sad or scary plots. Joyfully engaging in playing the aversive emotions provides children with a sense of control and self-regulation, without being overwhelmed by their own action impulses or emotion urges. This was explained by Fler and Hammer (2013, chap. 2.4.3.3) as “double expression of feelings”, with the example that children experience the emotions fear and joy simultaneously in play. When no adult is involved in the play, these emotions are experienced but not necessarily made conscious as feeling states. Therefore, in our intervention the PL made those emotions conscious, so that children could experience a contingency between the feeling state, the emotion expression, and the respective verbal designation of that feeling, allowing for emotional awareness to arise (Fler & Hammer, 2013; Holodynski, 2009b).

The third section *Variations* is on the right of the back-side, where possible variations are proposed that the PL could suggest to the children. First, it describes how the PL can instruct children from the perspective of his or her role. Second, variations are listed on how children can assume the antagonistic role and how that role-change should be guided and scaffolded. In sum, in Study 2 the instructions for the PLs were manualized in a play-card-format. These play-cards allowed for a more equal implementation of the instructions in the six different play groups and granted a certain quality of scaffolding of children’s play. Each play session was videotaped by two cameras for video-supervising the PLs throughout the intervention and for subsequent analysis.

7.3.4 Dialogic Reading in Treated Control Group

Dialogic reading is a dialog-oriented communication about a book or a fairytale between an adult and a group of children, with the goal to increase the rate of language development. In dialogic reading the adult prompts the children to respond the story, evaluates and expands the children’s responses by repeating and adding information to it, asks questions, sets impulses, thus encourages children to speak about the story in their own words, stimulates their linguistic development by using scaffolding language (Whitehurst et al., 1988; Whitehurst et al., 1994).

In our intervention design, we used dialogic reading and expanded that technique by dramatized reading, so that children in the treated control condition would receive the same input as the intervention group, except for the play-elements. Dialogic reading was started in all 6 treated control groups (TCG) after pre-tests were complete. Over the time of two months, trained graduate students conducted dialogic reading twice a week, resulting in 15 sessions total, with each session lasting 20-25 minutes. The conditions of the dialogic reading groups were completely aligned with the intervention conditions, adult readers used the same group management techniques and each session followed a ritualized structure:

- (1) *Welcoming Ritual*. After children were welcomed to the ‘fairyland’, they sat in a circle on seat pads, the adult played a little tune on an instrument, which he or she again played at the end of the session, serving as a musical opening- and ending signal.
- (2) *Dramatized reading*. In dialogic reading, each fairytale was read twice in two consecutive sessions. Sessions were started either by dramatized reading of a new story, or if the story had been read in the previous session, by asking children about what they remembered from the last time, before reading it again. Dramatized reading captures children’s imagination, it illustrates the connections and the prototypical expression signs of emotions (see chapter 3.6.2 *Dramatized Reading of Fairytales*). The dramatized reading made up the largest part of each session.
- (3) *Dialog between adult reader and children*, by applying the dialogic reading technique. Adult readers questioned the children after the story, using prepared questions (Appendix B), and encouraged the discussion of the story.
- (4) *Closing Ritual*. At the end of each session, the tune from the beginning was played again, as an ending signal, after which children were released back into their classrooms.

In the dialogic reading groups we used the same fairytales as in the intervention group and added two more (‘The Hare and the Hedgehog’ and ‘The Spirit in the Bottle’, both by the Brothers Grimm), to compensate for the extra time that was available, because no role-play was realized (the sequence of stories and questions for the dialogic reading condition can be seen in Appendix B). All stories were altered for dramatized reading, with directions within the manuscript, precisely indicating when to support the story visually with gestures, modulation of speech, and prototypical expression of emotions, granting a standardized implementation (see chap. 3.6.2 *Dramatized Reading of Fairytales*).

As mentioned before, each story was accompanied by a set of dialogic questions to help the readers with the questions they could ask children before and /or after reading a story:

- a) *Recall prompts* were questions that required children to remember facets of the story (e.g., “Can you remember why the wolf was so thirsty after he woke up from his nap?”).
- b) *Open-ended prompts* were statements that encouraged children to tell aspects of the story in their own words (e.g., “I told you about the dwarfs last time. Tell me what happened to them.”).
- c) *Wh-prompts* were classic w-questions, such as *what*, *where*, and *why* (e.g., “Why did the goats open the door?”) (Whitehurst et al., 1994; Whitehurst et al., 1999).
- d) *Emotion prompts*. We added open questions concerning the causes of emotions and the protagonists coping strategies, to foster emotional perspective taking and empathy (e.g., “How did the goats feel, when they realized that they just opened the door for the wolf? What did they do then?”).

Dramatized readers were instructed to react with a neutral “Hmmm” to children’s responses and contributions, instead of mirroring the emotion expression of the child, in order to keep the reenactment of emotions strictly out of the treated control condition. Each reading session was videotaped by one camera for video-supervising the readers throughout the course of the dialogic reading and for subsequent analysis.

7.3.5 Measures

The test battery used in Study 2 consisted of direct child assessments for different play competences, emotional perspective-taking, emotional knowledge, and self-regulation, and a teacher report of children’s socioemotional competence. All direct child assessments were administered in a separate room at the particular preschool, with the experimenter and the child sitting at a table at a 90° angle. The sequence in which the measures were administered was counterbalanced, specifically the order of the two play competence tests. Each session lasted approximately 35 minutes and was videotaped for later analysis and ratings.

Direct Child Assessments: Play Competence

Two measurements of children’s play competence were administered as part of the testing battery. For both measures 25% of the video data of Time 1, 2 and 3 were coded by two trained graduate students, all video data was presented in randomized order and raters were blind to time of measurement and group affiliation. Interclass correlations (ICCs), assessing absolute agreement using a two-way mixed model, were used to compute interrater reliability. The remaining 75% of the video data were coded by one of the raters.

The Tools of the Play Scale. The first assessment of play competences was the revised version of the *Tools of the Play Scale* (TOPS; Seeger & Holodynski, 2016), which has been

described already in Study 1, but is illustrated here again for completeness of contents. The TOPS is a validated elicitation measure for children between 3 and 6 years, designed to elicit children's pretend-play behavior in a standardized one-on-one role-play situation using standardized materials and items. The items prompt the child to take on a role, substitute objects, and play actions, speech acts, and emotions. In the TOPS, the experimenter initiates a supposedly spontaneous role-play with the child, where they simulate shopping in a gift shop, the child takes on the role of the salesman and the experimenter embodies the customer, and the table they are sitting at serves as the shop. The experimenter guides the course of the play by planting prompts in a fixed sequence, following a test-script.

The TOPS version from 2014 was revised and enhanced, with the goal to increase the fit between items and addressed role-play competence, by optimizing the examiner training, optimizing the coding manual, and eliminating and optimizing the single items. For instance, an item assessing verbal ability was added (*PI-5 Reading book*, where the child has to substitute a book and pretend read from it). The revised TOPS consist of 18 items, of which 16 (see Table 10) are included in the analysis and can be grouped in four play-scales, three of the scales were cross-validated in a confirmatory factor analysis: (1) 'Play Action' scale composed of 4 items (Cronbach's alpha = .73 at pre-test), (2) 'Language' scale composed of 3 items (Cronbach's alpha = .77 at pre-test), and (3) emotion scale composed of 5 items (Cronbach's alpha = .87 at pre-test). The remaining 4 items can be combined to the scale 'Cognition', which subsumes the basic competences such as cognitive requirements for role-taking and object substitution (Cronbach's alpha = .59 at pre-test). The four sub-scales had a very good interrater-reliability (ICC = .89 - .94).

In terms of content, a 'Role-Play-Competence' scale can be calculated, which is the sum of the 'Play Action' scale, 'Language' scale, and the 'Emotion' scale (12 items total, $\alpha = .91$ at pre-test) (Seeger & Holodynski, 2016). Additionally, Cronbach's alpha was calculated to assess the internal consistency of the TOPS 'Total Score' (mean of all 16 items) for all three times of measurement of Study 2 and they are all excellent, it was .91 at pre-test, .90 at post-test, and .91 at follow-up-test.

The TOPS served as a measure for children's role-play competence and as an implementation check, because it assessed children's role-play competence and their use of the eight Tools of the Play in vivo, in a standardized fashion and within approx. 15min.

Table 10. Overview of Scales and Items of the Tools of the Play in the TOPS.

Scale	Items	Tools	
Cognition	P1-1	Sorting gifts in shelves	SU
	P1-2a	Substituting blocks as toys	OS
	P1-3	Recommending suitable gift for opposite gender	RO
	P1-3a	Offering further gift	RO
Play actions	P1-4	Wrapping gift	PA
	P1-6	Substituting block as chocolate bar	PA
	P1-7	Demonstrating brushing with a block as comb	PA
	P1-8	Arranging the payment	PA
Language	P1-5	Substituting block as book and reading from it	RL
	P2-4	Calling police concerning the burglary	RL
	P2-6	Reporting the police's answer to customer	RL
Emotions	P2-2	Shock about the burglary	PL, EE
	P2-3	Anger about the burglar	PL, EE
	P2-5	Relief about the captivated burglar	PL, EE
	P2-7	Sympathy for the sad customer	PL, EE
	P2-8	Joy about getting back all stolen goods	PL, EE

Notes. P1= part 1, P2= part 2, SU= sujet (play location), RO = understanding of role, PL = understanding of plot, OS= object substitution, PA= play action, RL= role language, EE = dramatizing emotions.

The TOPS was videotaped in order to assess which tools the children elaborately used on their own, which tools they could use with adults scaffolding, and which tools they could not apply despite support of a competent play partner. Hence, the revised TOPS enables an integrated assessment of the quality of children's role-play competences, in relation to the required help. Subsequently, each item was rated by a trained judge on a seven-point scale which has four defined anchor points, each item could be coded on a seven-point-scale, i.g. scores of 0, 5, 10, 15, 20, 25, and 30 are possible. A standardized and revised coding manual defines the four anchor points of the seven-point scale for each item separately. The anchor points range from "0 = no reaction despite scaffolding prompts or reaction does not meet expected action", "10 = short, simple reaction with all scaffolding prompts", "20 = simple reaction without scaffolding prompts *or* very elaborate reaction with scaffolding prompts", to "30 = independent, elaborate, and imaginative reaction without scaffolding prompts". Hence, the coding manual provides an integrated assessment of the quality of children's role-play in relation to the scaffolding they require. After all play sections had been coded, the scores for the individual play-scales and the total role-play competence were calculated, for each scale a maximum score of 30 could be reached.

Affect-in-Play-Scale. The second measure of play competences was the Affect-in-Play-Scale – Preschool Version (APS-P; Kaugars & Russ, 2009), a measure designed to assess both cognitive and affective pretend-play processes in preschoolers. We added the APS-P because of its free-play setting, which allows for the child to exhibit any type of play without the play being scaffolded. The APS-S is a semi-structured 5-min videotaped play task, with standardized instructions, prompts, and a standardized set of toys (certain plastic and stuffed animals, plastic cups, toy car, and fluffy ball), which are intended to elicit symbolic and fantasy play, and with which children played for 5 minutes. The experimenter introduced the task with standardized instructions, where all toys are picked up and named individually, before being put on the table in front of the child. After the experimenter had presented all toys she started the task with the following instructions and an example of how to play with the toys (Russ, 2006):

That's all the toys in the basket. Now we're going to make up a story using the toys on the table. See how you can play with the toys. (exaggerated voice tones) This is the bear. He says, "I'm really hungry! Where can I find some food? (goes over to cups) Oh look, I found some cookies. I love cookies. Yum! Yum! Here's another cup. Oh yucky! I don't like what's inside there! Yuck!" Now you keep going. What happens next?

The experimenter gave no further play impulses, did not participate in the play, but used standardized prompts to keep the child going (e.g., "You still have some time left to play with the toys."). "Standardized prompts were used as needed to encourage the child to initiate and/or continue playing and to talk louder." (Kaugars, 2011, p. 741). If, however, the child did not play within 2 min of the task, despite being prompted, the task was discontinued. The videotaped play sessions were later rated using an elaborate scoring system. Using the APS-P scoring manual, primary scores can be calculated, of which five are the primary scores. Most of the scales are rated using a time-sampling technique of 10- and 20-second intervals, the remaining scores are global ratings on 5-point Likert-scales after the task is completed (Kaugars, 2011; Kaugars & Russ, 2009):

1. *Frequency of affect:* the sum of 10-second intervals in five minutes in which the child expressed any affect.
2. *Variety of affect:* the sum of different types of affect categories the child expressed (out of 12 possible affect categories, i.e. five positive, six negative, and one undefined affects).
3. *Quality of fantasy mean:* mean of imagination (i.e. novelty and uniqueness of play and ability to pretend), organization (i.e organization of play and considers quality of plot and complexity of story), and elaboration (i.e. amount of embellishment in play) scores,

which are each rated on 5-point Likert-scale (from '1 = no pretending' to '5 = very elaborate pretending') across the whole play session.

4. *Comfort*: global rating of child's enjoyment, pleasure, and involvement in the task on a 5-point Likert-scale (from '1 = no interest in play' to '5 = very involved in play') across the whole play session.
5. *Number of pretend-play intervals*: sum of 20-second intervals in which children engaged in symbolic or pretend play.

The additional four scales that are being rated are:

- *Frequency of positive affect*: the sum of 10-second intervals in which the child expressed one of five positive affect themes.
- *Frequency of negative affect*: the sum of 10-second intervals in which the child expressed one of six negative affect themes.
- *Number of no play intervals*: sum of 20-second intervals in which the child did not move the toys or interact with them.
- *Number of functional play intervals*: sum of 20-second intervals in which the child acted with or without the toys in an instrumental, but not symbolic manner.

Because the APS-P is a free-play setting, despite the standardized instructions, it allows for the child to exhibit any type of play. Hence, functional play (e.g., building a tower) or symbolic play (e.g., feeding the stuffed animals) could be displayed, at the same time more elaborate pretend-play could be exhibited (e.g., enacting emotional plots with different characters). However, because it is a free-play situation, scales need to be interpreted with caution. However, we administered the APS-P as a counterpart of the TOPS, because we wanted to assess whether a potential effect of the pretend-play intervention would also affect children's play behavior in an alone-play situation, without adult's scaffolding.

Since there is no German version of the APS-P available, we translated the test description, instructions and the coding manual into German. Interrater reliabilities were calculated with interclass correlations (ICCs), assessing absolute agreement using two-way mixed models, all ICC's for the primary APS-P scores were high, above .93 (frequency of affect, variety of affect expression, imagination, organization, number of no play intervals, number of functional play intervals, and number of pretend-play intervals), except for comfort (ICC = .83) and elaboration (ICC = .88). Thus, our results are in line with results from the original version of Kaugars (2011), where all ICCs were above .91.

Table 11. Intercorrelations Among the five Primary Scores of Affect-in-Play-Scale – Preschool Version.

Variable	1	2	3	4	5
1. Frequency of affect	-				
2. Variety of affect categories	.85**	-			
3. Quality of fantasy mean	.75**	.69**	-		
4. Comfort	.63**	.60**	.76**	-	
5. Pretend-play intervals	.77**	.74**	.89**	.78**	-

** $p < .01$

In the present study, intercorrelations (see Table 11) among the five primary APS-P scores (frequency of affect, variety of affect expression, quality of fantasy mean, comfort, and pretend-play intervals) are comparable to the ones in the original version of Kaugars and Russ (2009), with their correlations ranging from $r = .60$ to $.90$ and our correlations ranging from $r = .60$ to $.89$, indicating that some scores assess similar constructs, others are related, but have unique variance (ibid.). In sum, the translated version used in this study appears to be comparable with the original version of Kaugars (2011).

Direct Child Assessments: Emotional Perspective Taking

For assessing children's perspective-taking ability in inferring emotion, as one part of their emotion-related conceptual knowledge (Holodynski, 2004), an experiment following Ronfard and Harris' (2013) 'Little Red Riding Hood' (LRRH) task was administered, which is intended to serve as a measures of emotional perspective taking. The LRRH task assesses children's theory of mind and their ability to attribute emotions to the character of an unfolding narrative. More specifically, in the LRRH task the experimenter reminded the child of the story and asked how Little Red Riding Hood feels as she walks closer to grandmother's house. By using the LRRH task, Ronfard and Harris (2013) were able to show that children's tendency to misattribute emotions increases as the character of the story approaches an unexpected outcome (Harris et al., 2014). In their experiments, Ronfard and Harris (2013) examined children's representations of a story (a synopsis of Little Red Riding Hood) in which the girl encountered a surprising outcome (the wolf) upon arriving at her destination (grandmother's house), where the character of the story and the child listening to the story do not share the same information. Ronfard and Harris found that children between 3 and 6 years of age shifted in the mental states they attributed depending on the distance of Little Red Riding Hood from the grandmother's house (i.e., the unexpected outcome).

Even though most children consistently recognized that Little Red Riding Hood did not know about the unexpected outcome (the wolf in grandmother's house) at any point, they increasingly attributed feelings to Little Red riding Hood consistent with the surprising outcome

(fear). In other words, children displayed a stable understanding of what the girl knew or did not know, but increasingly attributed feelings that were inconsistent with what they had claimed that the girl knew. Hence, children's emotion attributions to a story character seems to not be a fixed function of their theory-of-mind understanding, but a dynamic pattern that changes as the story unfolds (Harris et al., 2014). Ronfard and Harris (2013) suppose that children found it increasingly difficult to inhibit their awareness of fear as the protagonist moved closer toward it and answered from their own point of view, instead of from the characters perspective, "attributing fear to Little Red Riding Hood even before she could know that there is something to be afraid of." (Harris et al., 2014, p. 106). Ronfard and Harris (2013) further explain that for children to distance themselves from their own growing awareness of fear becomes increasingly difficult as the impending reality of the threatening situation becomes more and more salient, resulting in correct attribution of belief but incorrect attribution of emotion as the character gets closer to discovering the fear-eliciting event – calling it the distance effect.

In the present study, the story of Little Red Riding Hood was used because it has been applied in previous studies on children's attribution of emotion (Bradmetz & Schneider, 1999; Ronfard & Harris, 2013) and because the occurrence of the wolf is likely to be readily associated with strong emotion, i.e. fear. In accordance to Ronfard and Harris (2013), children in our study were read the German synopsis of the Little Red Riding Hood story, which was done by using a back-translation, where the original version was translated into German and then back into English to ensure it is equivalent (American Psychological Association, 2012):

Once upon a time, Little Red Riding Hood wanted to visit her grandmother and packed her goods. While this was happening, a wolf tricked the grandmother. She opened the door for the wolf and he ate her. Then, the wolf put on the grandmother's clothes and waited for Little Red Riding Hood so he could eat her too. When Little Red Riding Hood arrived in grandmother's house, the wolf ate her. Later in the day, a hunter shot the wolf and rescued Little Red Riding Hood and her grandmother. They lived happily ever after.

After the experimenter read the story, children were presented with a board that had Little Red Riding Hood's house (red roof) on the left side and the Grandmother's house (brown roof) on the right side, the two were connected by a dotted path. The experimenter pointed to each house, while saying: "This is Little Red Riding Hood's house and this is her Grandmother's house." And then asked the control question: "Where does Little Red Riding Hood live? And where does the Grandmother live?". Children were then given a Little Red Riding Hood figurine and asked to move it to four equidistant points: at Little Red Riding Hood's own house, a third of the way to Grandmother's house, two thirds of the way to Grandmother's house and lastly directly outside Grandmother's front door.

Children were asked two questions at each point, a knowledge question and an emotion question: (1) “When she is here, does Little Red Riding Hood know that the wolf is hiding in Grandma’s house?” (2) “When she is here, does Little Red Riding Hood feel happy or scared?”. Across locations, the order of questions (knowledge vs. emotion) and the order of mention of the two response alternatives (happy vs. scared) was counterbalanced. Since each question was asked four times, children heard each version of the question twice. Responses to the knowledge question were scored as correct if children claimed that Little Red Riding Hood did not know about the wolf, and responses to the emotion question were scored as correct if children stated that Little Red Riding Hood felt happy. In accordance to Ronfard and Harris' (2013) judgments at the two far points were combined for each domain, as were judgments at the two near point, yielding scores ranging from 0–2 for each domain (knowledge vs. emotion) at each distance (far vs. near).

We expected an improvement in the intervention group (IG) at the near distance on the emotion measures, because we hypothesized that the intervention makes children better at attributing emotions and less susceptible to the effect of distance, compared to the TCG and NCG, because the IG learned to distance themselves from their dominant impulses and take the emotional perspective of a character, regardless of their own emotions. No changes were expected in the belief domain (knowledge), because evidence suggests that knowledge questions that depend on visual access are easy even for 3-year-old children (Pratt & Bryant, 1990). Therefore, children from all groups were expected to answer the knowledge questions correctly, regardless of the distance from the grandmother’s house. “Indeed, if children can represent the visual perspective of the main character, they should acknowledge that she has no knowledge of the wolf at any of the four locations.” (Ronfard & Harris, 2013, p. 284-285).

Direct Child Assessments: Emotional Knowledge

For the measure of emotional knowledge, all participants completed the subscale ‘Socioemotional Competence (SEC)’ from the Intelligence and Development Scales – Preschool (IDS-P; Grob, Reimann, Gut, & Frischknecht, 2013). The subscale SEC is divided into two tasks: testing the ability of ‘Recognizing Emotions (RE)’ and the ‘Understanding of Social Situations (USS)’. In the first task, children were asked to recognize four basic emotions (joy, sadness, anger, and fear) based on photos of children’s faces (each card depicts four different emotion expressions). The experimenter introduced each emotion picture card with the words: “*Which of these children is happy/sad/scared/angry?*” and children were to point at the face showing the respective emotion.

In the second task, children were consecutively presented with two drawn pictures, each showing a social situation, where the child had to recognize 6 situational aspects of each picture. The first picture depicts a girl who is sad, because two boys took away her teddy, the second picture depicts a boy who is scared, because a man is about to accidentally destroy his block tower. The experimenter asked children to describe the pictures by saying: *“I will show you some more pictures. Look. Tell me everything that happens in this picture.”*. The USS-task assesses whether the child has knowledge of emotion causes, which stimuli indicate which emotion (e.g., tears as an indicator of sadness), and social display rules of emotion expressions. The second task allowed for the experimenter to ask standardized control-questions from the protocol-sheet regarding the situational aspects in the pictures that the child had not addressed. If the child addressed the situational aspect on its own 2 points were given, if the child addressed the aspect only after the experimenter had asked the control-question 1 point was given, if the child did not address the aspect at all 0 points were given for the respective item. Points for the correct answer were summarized for each task. The first and second task taken together are composed of 16 items, internal consistency (Cronbach’s alpha) of the scale is $\alpha = .69$ (Irblich, 2015). In the first task children could reach 4 points, in the second task 24 points, with a maximum of 28 points total. We expected children from the IG to do better on both tasks, which would result in a higher total score, because in the intervention prototypical expressions of emotions were repeatedly observed in the PL and imitated by the children, complex emotion eliciting situations were enacted, perspective taking enhanced by taking on characters and acting from their motive perspective.

Direct Child Assessments: Self-Regulation

Self-regulation was operationalized as an inhibition task, where children had to sit in front of attractive toys and were requested not to touch them, in accordance to the delay-of-gratification task by Saltz et al. (1977). In their original study children were “guardians of the toy”, where they sat by an attractive toy and were not to touch it during an alone-waiting period, because it supposedly belonged to someone else. Before leaving the room under a pretext, the experimenter gave the instruction that if the child did not touch the toy while he was gone, he or she would later be rewarded with another toy. One third of the children were given instructions about how to make waiting easier (Mischel, Shoda, & Rodriguez, 1989): “think about your favorite story” (Saltz et al., 1977, p. 371). “Since virtually every child touched the toy, each child’s score was the time in seconds between the experimenter’s leaving the room and the first time the child touched the toy.” (ibid., p. 371).

In our study, the task was slightly adjusted and called “waiting-task”. Our waiting task was administered at the very end of the testing battery and introduced by the experimenter as her wanting to thank the child for the participation, by giving the child a gift. However, the experimenter pretended to have misplaced the gift box and started to look for it in the testing room. Simulating absentmindedness, the experimenter spilled a box of little plastic toys (rubber fruit, plastic bears and dinosaurs) on the table right in front of the child and put down to sparkling horses with riders (a knight and a female elf). The toys were selected in such a way that they were attractive for both genders. The experimenter pointed at the toys and said: “Oh, this is not what I am looking for. I don’t know who these belong to, we better not touch them.”. After spilling the toys the experimenter mentioned that the gift box was accidentally left outside and that the child had to wait without touching the toys. Before leaving the room, the experimenter instructed the child: “Don’t touch the toys while I am gone. Wait for me. You can think about your favorite story.” Outside the room, the experimenter started the stopwatch and returned after 5 minutes with the gift box full of different toys, the child could pick a toy and was then released back to the classroom.

We calculated different scores by analyzing the videotaped waiting task. First the latency until the first touching was counted, that is the time in seconds between the experimenter’s leaving the room and the first time the child touched the toy (in accordance to Saltz et al., 1977). However, we used the time in seconds on a percentage basis of the total task-duration, this way slight measurement errors of individual experimenters could be compensated. Second, we continuously coded the child’s behavior throughout the 5 minutes, the codes waiting vs. touching were mutually exclusive, and allowed us to calculate which percentage of the total task-duration the child was waiting, instead of touching the toys. Third, transitions from waiting to touching and vice versa were counted, resulting in the absolute frequency of touching and waiting, we were interested in the total number of touches. We expected children from the IG to have a higher latency, more waiting, and less touching, because in the intervention the self-regulation was trained in regard to distancing oneself from dominant impulses. However, since children were given instructions about how to make waiting easier, both the IG and TCG could benefit from thinking about their favorite story, because both groups had been exposed to various fairytales over the intervention period, which could have effected their imagination. Therefore, in regard to the waiting task, the IG and TCG were expected to do better than the NCG.

Teacher-Report of Child: KIPPS+R

Additionally, Kindergarten teachers were given the KIPPS+R-Scale (teacher questionnaire as external measure of socioemotional competences) to be completed within two weeks, after which they were collected by the researchers. The teachers completed the KIPPS+R for each child and each time of measurement. The KIPPS+R (Seeger et al., 2014) was already introduced in Study 1, but as a reminder the KIPPS+R is a teacher-report screening instrument for socio-emotional competences in preschool settings, consisting of 38-items total. The KIPPS+R consist of six subscales; (1) Cooperativeness, (2) Integration into Group, (3) Problem Behavior, (4) Prosocial Behavior, (5) Play Behavior, (6) Regulation Behavior. With scales (1) to (5) consisting of six items and scale (6) consisting of eight items. For all items, responses are based on a four point scale: 0 = never true, 1 = rarely true, 2 = sometimes true, 3 = true. The scales reflect the child's common behavior in kindergarten and therefore most items must be answered from memory, hence the questionnaire should only be answered by a teacher very familiar with the child.

The KIPPS+R was developed using a representative norm sample, allowing for individual scores to be compared to the cut-offs of the corresponding age group and consequently the child's socioemotional competence can be classified as "age appropriate" or assigned to one of three risk-groups: (1) Poor Group-Integration, (2) Problem Behavior, (3) Multiple Risks. The KIPPS+R has good objectivity, reliability, and validity and the construct validity was confirmed by factor analysis and criterion-related validity was confirmed by comparisons with other reliable, established instruments (Seeger et al., 2014). In Study 2 the internal consistency was good to excellent, Cronbach's α for all subscales was greater than .81 at pre-test, ranging from .79 to .92 at post-test, and greater than .82 at follow-up-test.

We expected children from the IG to have an overall higher score in the socioemotional competence, as rated by the teachers on the KIPPS+R, because in the intervention various aspects of socioemotional competence, which are represented in the individual subscales of the questionnaire, were trained. Scale (1) *Cooperativeness* would be positively affected by the application of the group management techniques, where children learn to abide by the rules of joint play, cooperating with the PL and the other group members. We expected that scale (2) *Integration into Group*, (3) *Problem Behavior*, and (4) *Prosocial Behavior* would be positively affected, because children in the intervention group had various opportunities to interact and negotiate with peers, which would lead to increased group integration and prosocial behavior, because children would learn to coordinate with group members what to play and how to play it, by agreeing who takes which role and by sharing limited roles and props, hence dealing with

limited resources in a constructive and prosocial manner, while considering individual needs throughout the play. Plus, group sizes were limited which would enable children who are not well integrated to be included in the play in every intervention module. This constant integration of ostracized children in the play group could lead to an inclusion of such children beyond the intervention period, into everyday life situations in preschool. We expected scale (5) *Play Behavior* to be positively affected by mediation of the Tools of the Play, enabling children to engage in pretend-role-play independently beyond the intervention setting. And lastly, we expected scale (6) *Regulation Behavior* to be positively affected by an improved impulse control, which was trained every time children took on a character and acted from the motive perspective of the chosen role, experiencing full emotion episodes which would lead to increased emotion regulation. Additionally, they would learn that not every motive can be satisfied right away, because when acting from a character's perspective, one must distance oneself from own impulses, emotion knowledge and recognition would be trained by application of planning tools.

7.3.6 Procedure

Study 2 was conducted over a seven-month period, from December of 2015 until June of 2016, and divided in four phases: pre-test, intervention, post-test, and follow-up-test. Pre-tests (assessments and teacher questionnaires) took place in December of 2015, at the beginning of the project, all participants were tested individually at their kindergarten.

The second phase took place in January and February of 2016, where the pretend-play intervention (IG) was implemented in six play groups from two institutions, at the same time the dialogic reading (TCG) was implemented in six reading groups from three additional institutions, and children from the no-treatment control group (NCG) underwent their regular kindergarten program. During the time of the intervention and the dialogic reading, no other curricula or programs targeting socioemotional competences were conducted in either kindergarten.

The third phase took place in March of 2016, at the end of the intervention program all children were tested using the test-battery from pre-test. Three months after the intervention, in June of 2016, we conducted the follow-up test, to measure long-term effects of the intervention, again with the same test-battery. The procedure of Study 2 can be seen in Figure 11.

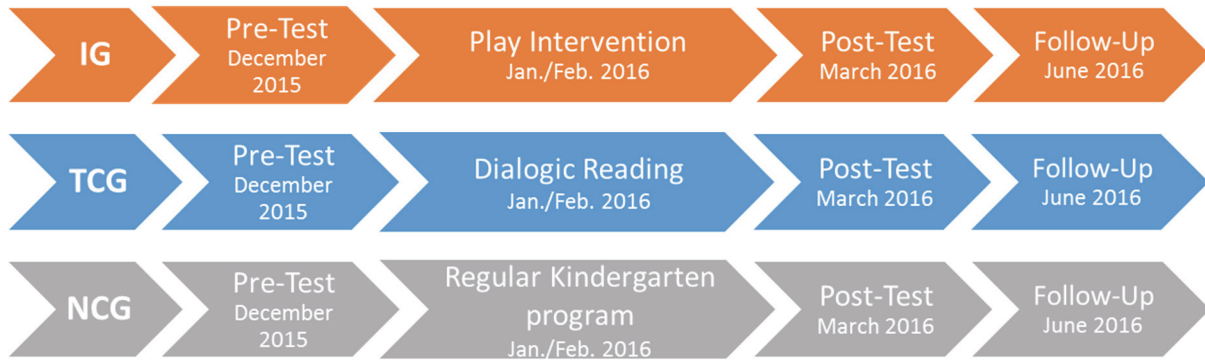


Figure 11. Experimental design and measurements of Study 2.

All assessments took place in a separate room at the particular preschool. Each session lasted approximately 35 minutes. The order of administration of measures was counterbalanced across children, but held constant per child across the three times of measurement, as to control for sequence effects. The same assessment battery was used at all three time points. Details are given below in the chapter 6.3.6 *Measures*.

One research assistant, four graduate students and one undergraduate student, all females, administered the baseline- and the post-assessments. Three of the examiners had to be replaced for the follow-up-assessment, because they had graduated and left university. At baseline, each examiner assessed the children who would be in her intervention- or treated-control group, hence the pre-testing also served as an acquainting-period for the child. For the post- and follow-up-assessment examiners were blind to intervention participation, those who conducted the intervention or control treatment did not test children from preschools in which they had previously worked to prevent experimenter-bias and to avoid the influence of familiarity (between child and researcher) on the test results. All examiners received intensive training and were video-supervised throughout the assessments. All measures were scored blind and in randomized order concerning participant's group affiliation and time point of measurement.

7.4 Results

7.4.1 Plan of Analysis

In preliminary analyses we tested for differences between the intervention (IG), treated-control (TCG), and no-treatment control (NCG) group on key demographic characteristics (age and gender) and developmental risks in socioemotional competences at baseline to confirm that the matching of groups was successful. And all dependent variables were tested for baseline differences. For the outcome analyses, we conducted repeated-measures analysis of variance (ANOVA). If the interaction term was significant, the analysis was repeated and the IG

compared to the TCG and NCG separately, to break down the interaction effects. Furthermore, one-factorial repeated measures ANOVAs for each group were conducted to further examine the results.

The assumptions of normal distribution, homogeneity of variance, and the assumption of sphericity (equality of variances of the differences between conditions) for repeated measures ANOVAs were tested. The Lilliefors corrected Kolmogorov-Smirnov-test was used to test whether our dependent variables were distributed normally. The homogeneity of variances was tested with Levene's tests, but even if homogeneity of variance was not given, repeated measures ANOVAs were conducted and data parametrically evaluated, because ANOVAs are robust to violations of homogeneity in terms of the error rate (Field, 2013). Nevertheless, unequal variances are reported for informational and transparency reasons. The assumption of sphericity was tested with Mauchly's test. If the assumption of sphericity had been violated, degrees of freedom were corrected using Huynh-Feld estimates of sphericity (ibid.). However, according to Bortz (2005) and Stevens (1992) the ANOVA is a robust evaluation method, which does not lead to decision errors when the assumptions are violated, as long as the sample is sufficiently large ($n_i \geq 10$) and there are no suitable non-parametric alternatives, which is why parametric tests were applied, even when assumptions were violated.

7.4.2 Preliminary Analysis: Baseline Comparisons

Table 12 provides descriptive statistics at baseline and comparisons between the intervention and control groups at baseline. One-way independent ANOVAs were utilized for continuous variables and chi-square analyses for categorical variables. There were very few differences between the three conditions suggesting that the matching process was successful. In the intervention group there were slightly more children with a developmental risk than those in the two control groups, however it is only a matter of a statistical trend ($p = .098$) and therefore not a significant difference.

Table 12. Demographic Variables at Baseline/Pre-test by Intervention Status.

Demographic variables	Intervention		Treated control		No-treatment control		ANOVA
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Child age (months)	60,1	(8,4)	60,5	(6,6)	59,6	(6,6)	ns
Age range (years)	4-6		4-6		4-6		
	%	N	%	N	%	N	χ^2
Child gender (male)	58	21	54	19	50	13	ns
Child gender (female)	42	15	46	16	50	13	ns
Developmental risk ^a	47	17	23	8	38	10	$\chi^2(2, N=97) = 4.65^+$

^aThis variable indicates dichotomously, whether or not a child has a developmental risk in the socioemotional area, measured with the KIPPS+R (Seeger et al., 2014).

⁺ $p < .10$

One-way independent ANOVAs were also used for comparing groups on all dependent variables at baseline. There were significant baseline differences on the TOPS's subscale 'Cognition' ($F(2, 94) = 3.71, p = .028, \eta_p^2 = .073$). Bonferroni post-hoc-tests revealed that the TCG ($M = 15.22, SD = 4.01$) had significantly higher scores at pre-test than the IG ($M = 12.60, SD = 4.42$), the NTG ($M = 13.6, SD = 3.65$) did not differ significantly from the other two groups. And there were significant baseline differences on the IDS-P 'Total Score' scale ($F(2, 94) = 5.22, p = .007, \eta_p^2 = .100$). Bonferroni post-hoc-tests revealed that the NTG ($M = 16.89, SD = 2.6$) had significantly higher scores at pre-test than the IG ($M = 14.06, SD = 4.19$), the TCG ($M = 14.94, SD = 3.09$) did not differ significantly from any of the other two groups. There were no significant baseline differences on any of the other dependent variables ($p > .05$ for all tests), but a statistic trend for baseline differences on the KIPPS+R ($F(2, 94) = 3.05, p = .052, \eta_p^2 = .061$). Bonferroni post-hoc-tests revealed that the TCG ($M = 91.47, SD = 14.40$) had slightly higher scores at pre-test than the IG ($M = 82.89, SD = 14.62$), but that difference was not significant ($p = .069$). The NTG ($M = 84.01, SD = 18.33$) did not differ significantly from any of the other two groups on the KIPPS+R at pre-test.

7.4.3 Outcome Analysis

The effect of condition on post-test and follow-up-test scores was tested using a repeated-measures ANOVA, a 3 (group: IG vs. TCG vs. NTG) \times 3 (time of measurement: pre vs. post vs. follow-up) model was utilized. Repeated-measures ANOVAs were performed on each outcome variable and tested the main effects for time of measurement and group, and the interaction of group by time of measurement. For all repeated-measures ANOVAs polynomial contrasts were conducted (Field, 2013) and the reported effect size is partial eta squared (η_p^2)

(Lakens, 2013), with Cohen's (1988) classification: small effect $\eta_p^2 = .0099$, medium effect $\eta_p^2 = .0588$, and large effect $\eta_p^2 = .1379$ (see chap. 6.4.3).

Direct Child Assessments: Play Competence

Tools of the Play Scale. The first assessment of play competences was the revised version of the Tools of the Play Scale (TOPS; Seeger & Holodynski, 2016). Table 13 provides a summary of the proximal effects of the intervention on children's role-play competence, as measured by the TOPS. The scores for the total role-play competence and the sub-scales can each yield scores ranging from 0-30.

All results reported for the TOPS can be interpreted unreservedly, because Levene's tests were non-significant for all conducted ANOVAs, confirming the homogeneity of variance for all groups at all three times of measurements. Mauchly's test confirmed that the assumption of sphericity had not been violated, therefore degrees of freedom were not corrected. Also, normal distribution is roughly given, as most Lilliefors corrected Kolmogorov-Smirnov tests were non-significant, except for NCG's 'Play Action Scale' at post-test ($D(26) = .186, p = .020$), the 'Language Scale' at follow-up-test for NCG ($D(25) = .184, p = .029$) and IG ($D(33) = .215, p < .001$), the 'Emotion Scale' for the IG at post-test ($D(36) = .161, p = .020$) and follow-up-test ($D(32) = .175, p = .014$).

The results for the TOPS 'Total Score' revealed a significant main effect of time, $F(2, 182) = 70.91, p > .001, \eta_p^2 = .438$. Polynomial contrasts revealed a strong linear time trend, $F(1, 91) = 139.51, p > .001, \eta_p^2 = .605$, indicating a proportional increase in role-play competence for all groups. The main effect of group on the role-play competence was non-significant ($F(2, 91) = .738, p = .481, \eta_p^2 = .016$). Hence, the role-play competence did not differ between the groups. The group by time interaction was also non-significant (see Table 13), indicating that the change in overall role-play competence in the IG was not different to the change in the TCG and NCG. Thus, children from all three groups improved their general role-play ability over time, no effect of the intervention was found on the TOPS 'Total Score'.

Table 13. Proximal Effects of Intervention on Tools of the Play Scale (TOPS).

Outcome measure	Pre-test		Post-test		Follow-up-test		ANOVA (group × time)	Effect size (η_p^2)
	<i>M</i>	(<i>SD</i>)	<i>M</i>	(<i>SD</i>)	<i>M</i>	(<i>SD</i>)		
TOPS Total Score								
IG	12.6	(5.0)	14.4	(4.3)	17.6	(4.0)	$F(4, 182) =$	.039
TCG	13.7	(4.5)	15.0	(5.0)	18.0	(4.2)	1.85, $p = .122$	
NCG	13.0	(3.5)	14.2	(4.2)	15.8	(4.5)		
TOPS Cognition								
IG	12.8	(4.4)	16.2	(4.6)	20.7	(3.6)	$F(4, 182) =$	.055
TCG	15.5	(3.8)	16.6	(4.6)	20.7	(3.4)	2.65, $p = .035^*$	
NCG	13.6	(3.6)	15.2	(3.9)	19.0	(3.9)		
TOPS Play Action								
IG	12.9	(5.7)	14.2	(4.1)	17.8	(3.9)	$F(4, 182) =$	.028
TCG	15.1	(4.8)	15.8	(4.8)	18.9	(3.8)	1.30, $p = .270$	
NTG	13.6	(4.2)	14.0	(4.6)	15.8	(5.0)		
TOPS Language								
IG	13.0	(6.6)	14.3	(5.2)	19.1	(4.8)	$F(4, 182) =$	.024
TCG	13.8	(5.7)	15.3	(6.5)	18.2	(4.9)	1.10, $p = .359$	
NTG	12.7	(4.4)	14.6	(5.5)	17.1	(5.8)		
TOPS Emotion								
IG	11.8	(6.1)	13.3	(6.4)	14.1	(6.1)	$F(4, 182) =$	.046
TCG	11.0	(6.3)	12.7	(7.6)	15.1	(6.7)	2.19, $p = .072^+$	
NTG	12.2	(5.3)	13.1	(6.3)	12.5	(6.7)		
TOPS Role-Play Competence								
IG	12.5	(5.7)	14.4	(5.9)	16.6	(4.5)	$F(4, 182) =$	.033
TCG	13.1	(5.2)	14.4	(5.9)	17.1	(4.8)	1.56, $p = .186$	
NTG	12.8	(4.1)	13.8	(4.9)	14.7	(5.4)		

⁺ $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$.

When looking at the individual sub-scales of the TOPS, only the subscale ‘TOPS Cognition’ exhibited newsworthy results. The main effect of group on the cognitive role-play competence was non-significant ($F(2, 91) = 1.892, p = .157, \eta_p^2 = .040$), but the main effect of time was significant, $F(2, 182) = 119.99, p < .001, \eta_p^2 = .569$. Polynomial contrasts revealed a linear time trend, $F(1, 91) = 231.27, p < .001, \eta_p^2 = .718$, indicating a linear increase over time for all groups in the cognitive role-play abilities. Furthermore, results showed a significant group × time interaction (see Table 13). This interaction effect is illustrated in Figure 12.

Detailed analysis of interaction effect. In an attempt to determine the direction of the interaction, separate repeated measures ANOVAs were conducted, where the IG was first compared to the NCG and subsequently to the TCG. Results from the 2 (IG vs. NCG) × 3 (pre vs. post vs. follow-up) repeated measures ANOVA show that the cognitive role-play competence at post-test was significantly higher than at pre-test and at follow-up-test significantly higher than at post-test, as can be seen in the increasing, linear time trend, $F(1, 58)$

= 152.83, $p < .001$, $\eta_p^2 = .725$, revealed by polynomial contrasts. The main effect of group on the cognitive role-play competence was non-significant ($F(1, 58) = .567$, $p = .455$, $\eta_p^2 = .010$), indicating that the cognitive role-play competence in the IG was not significantly different to the NCG. Results show a disordinal interaction trend between time and group, $F(2, 116) = 2.92$, $p = .058$, $\eta_p^2 = .048$. Specifically, at pre-test the NCG was rated higher than the IG, at post-test the IG was already rated higher and at follow-up that difference was even bigger, indicating that children from the IG register a stronger growth in cognitive role-play competences than children from the NCG.

The next comparison was done by a 2 (IG vs. TCG) \times 3 (pre vs. post vs. follow-up) repeated measures ANOVA, confirming the previous results. The cognitive role-play competence at post-test was significantly higher than at pre-test and at follow-up-test significantly higher than at post-test, as can be seen in the linear, increasing time effect, $F(1, 66) = 201.00$, $p < .001$, $\eta_p^2 = .753$, revealed by polynomial contrasts. The main effect of group on the cognitive role-play competence was non-significant ($F(1, 66) = 1.43$, $p = .237$, $\eta_p^2 = .021$), indicating that the cognitive role-play competence in the IG and TCG also did not differ. There was a significant ordinal interaction between time and group, $F(2, 132) = 4.72$, $p = .01$, $\eta_p^2 = .067$. Specifically, at pre-test TCG was rated higher than the IG, at post-test that difference was almost non-existent anymore, and at follow-up both groups were rated the same, indicating that children from the IG improved their cognitive role-play competences more strongly than children from the TCG. The IG especially caught up from pre- to post-test, indicating that the pretend-play intervention in the IG has a stronger effect than dialogic reading in the TCG.

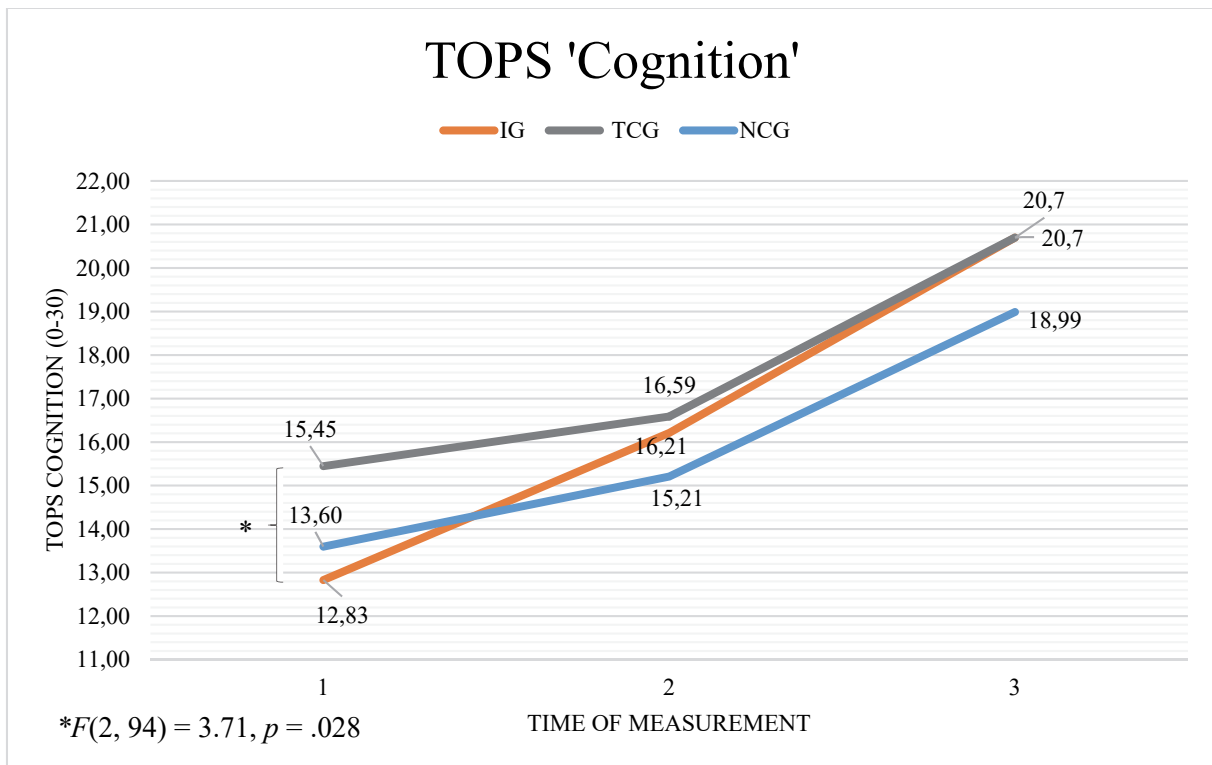


Figure 12. Mean Cognition Score of the TOPS as a function of group (IG: Intervention group vs. TCG: Treated control group vs. NCG: No-treatment control group) and time of measurement (pre vs. post vs. follow-up).

Contrasts from one-factorial repeated measures ANOVAs for each group confirmed these results by revealing a linear, increasing time-related effect for all groups, IG ($F(1, 33) = 124.49, p < .001, \eta_p^2 = .790$), TCG ($F(1, 33) = 76.81, p < .001, \eta_p^2 = .699$), and NCG ($F(1, 25) = 44.45, p < .001, \eta_p^2 = .640$). These findings indicate that although there was a large effect size in the natural increase of cognitive role-play abilities (as shown by the NCG), the effect was slightly stronger when children underwent the dialogic reading intervention (as shown by the TCG) and there was a much stronger effect when children received the pretend-play intervention. Taken together, these findings indicate that even though all groups improved their cognitive role-play ability over time, children from the IG improved the most, this was stable even at follow-up test. This shows that participation in the pretend-play intervention increases children's cognitive role-play abilities and the intervention has an effect beyond the intervention period, indicating a long-term effect of the intervention.

There were no significant group \times time interactions for any of the remaining sub-scales, which are 'TOPS Play-Action', 'TOPS Language', and 'TOPS Role-Play Competence' (see Table 13).

Affect-in-Play-Scale. The second measure of play competences was the Affect-in-Play-Scale – Preschool Version (APS-P; Kaugars & Russ, 2009). Table 14 provides a summary of the distal effects of the intervention on children’s play competence, by summarizing the nine primary scores of APS-P. Homogeneity of variance was not given for ‘Frequency of affect expression’ at follow-up-test, indicated by a significant Levene’s test, $F(2, 91) = 3.42, p = .037$. Mauchly’s test confirmed that the assumption of sphericity had only been violated for the ‘Comfort Scale’ ($\chi^2(2) = 7.05, p = .029$) and ‘No play intervals’ ($\chi^2(2) = 6.401, p = .041$), therefore degrees of freedom were only corrected for those scales, using Huynh-Feld estimates of sphericity (‘Comfort Scale’: $\varepsilon = .98$ and ‘No play intervals’: $\varepsilon = .98$).

As can be seen from Table 14, no group by time interaction reached significance. However, results showed a significant main effect of time for the ‘APS-P no play intervals’, $F(1.95, 177,58) = 11.87, p < .001, \eta_p^2 = .115$. Contrast analysis revealed a linear, decreasing time effect, $F(1, 91) = 17.72, p < .001, \eta_p^2 = .163$. One-factorial repeated measures ANOVAs confirmed this time-related effect for the IG ($p < .001, \eta_p^2 = .228$) and NCG ($p = .028, \eta_p^2 = .138$), but not for the TCG ($p = .076, \eta_p^2 = .075$). These results indicate on a descriptive level that although there was some sort of decrease of no play intervals in all groups the effect was strongest for children from the IG (as shown by the effect sizes). This suggests that participation in the pretend-play intervention decreased the amount of no play behavior, which in turn could have increased the amount of intervals with play behavior.

Table 14. Effects of Intervention on Affect-in-Play-Scale – Preschool Version (APS-P).

Outcome measure	Pre-test		Post-test		Follow-up-test		ANOVA (group × time)	Effect size (η_p^2)
	<i>M</i>	<i>(SD)</i>	<i>M</i>	<i>(SD)</i>	<i>M</i>	<i>(SD)</i>		
APS-P Frequency of affect expression (MAX = 30)								
IG	7.9	(7.1)	8.0	(6.7)	8.2	(7.1)	$F(4, 182) = .157, p = .959$	.003
TCG	5.8	(5.5)	6.5	(5.7)	6.2	(4.8)		
NTG	8.4	(6.1)	9.8	(6.0)	8.9	(7.5)		
APS-P Variety of affect categories (MAX = 12)								
IG	3.2	(2.4)	3.3	(2.4)	3.2	(2.3)	$F(4, 182) = .106, p = .980$	.002
TCG	2.8	(2.2)	3.0	(2.3)	2.8	(1.9)		
NTG	3.1	(2.4)	3.3	(1.9)	3.4	(2.4)		
APS-P Frequency of positive affect (MAX = 30)								
IG	3.4	(3.5)	3.6	(4.2)	3.4	(5.2)	$F(4, 182) = .249, p = .910$	.005
TCG	2.9	(3.4)	2.5	(3.3)	3.1	(3.1)		
NTG	4.4	(3.8)	4.5	(4.3)	4.0	(4.0)		
APS-P Frequency of negative affect (MAX = 30)								
IG	5.4	(6.2)	5.2	(5.0)	5.2	(4.6)	$F(4, 182) = .471, p = .757$	.010
TCG	3.5	(4.2)	4.6	(4.8)	3.5	(3.6)		
NTG	4.6	(5.5)	6.1	(5.2)	5.1	(5.9)		

APS-P Fantasy (MAX = 5)							
IG	2.6	(1.3)	2.5	(1.1)	2.9	(1.2)	$F(4, 182) = .004$
TCG	2.4	(1.1)	2.4	(1.6)	2.6	(1.1)	$.204, p = .936$
NTG	2.7	(1.2)	2.8	(1.1)	2.9	(1.3)	
APS-P Comfort (MAX = 5)							
IG	3.2	(1.2)	3.1	(1.2)	3.6	(1.1)	$F(4, 182) = .024$
TCG	3.1	(1.2)	3.0	(1.1)	3.1	(1.1)	$1.11, p = .355$
NTG	3.5	(1.0)	3.3	(1.0)	3.3	(1.1)	
APS-P Number of no play intervals (MAX = 15)							
IG	2.1	(2.4)	2.4	(2.9)	0.6	(1.1)	$F(4, 182) = .020$
TCG	2.8	(3.4)	2.1	(2.4)	1.4	(2.2)	$.930, p = .448$
NTG	1.9	(3.2)	1.1	(1.8)	0.5	(0.8)	
APS-P Number of functional play intervals (MAX = 15)							
IG	4.0	(3.5)	4.4	(3.7)	6.0	(4.2)	$F(4, 182) = .026$
TCG	5.3	(4.1)	6.0	(4.2)	5.3	(3.3)	$1.22, p = .303$
NTG	4.9	(4.4)	5.2	(3.5)	5.3	(4.5)	
APS-P Number of pretend-play intervals (MAX = 15)							
IG	7.2	(5.1)	6.7	(4.8)	7.2	(4.4)	$F(4, 182) = .005$
TCG	5.6	(4.6)	5.5	(4.8)	5.3	(4.1)	$.206, p = .935$
NTG	7.5	(5.4)	7.6	(4.1)	7.0	(4.9)	

[†] $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$.

Direct Child Assessments: Emotional Perspective Taking

For assessing emotional perspective taking, the 'Little Red Riding Hood' (LRRH) from Ronfard and Harris' (2013) was administered. Table 15 provides a summary of the effect on children's emotional perspective taking, as measured by the LRRH-task. We expected no changes in the belief domain (knowledge). To test this hypothesis, judgements from all four points (far and near), on which the child was asked if Little Red Riding Hood knew about the wolf in grandmother's house, were combined yielding scores ranging from 0-4 for the 'Knowledge-Total' score. Children from all groups were expected to answer the knowledge questions correctly, regardless of the distance from the grandmother's house. However, we expected an improvement in the IG at the near distance (the last two point in front of grandmother's house) on the emotion measures. To test this hypothesis, judgments at the two near points, where the child was asked how Little Red Riding Hood felt, were combined for the emotion domain, yielding scores ranging from 0-2 for the 'Emotion-Near' score.

Regarding the belief-domain results, Levene's tests were non-significant, confirming the homogeneity of variance for all three times of measurements (all $ps > .10$) and Mauchly's test confirmed that the assumption of sphericity had not been violated ($p = .11$), therefore degrees of freedom were not corrected. Results for the belief-domain can be seen in Figure 13. The repeated measures ANOVA revealed a statistical trend for a main effect of time, $F(2, 184) = 2.89, p = .058, \eta_p^2 = .030$. Analysis from one-factorial repeated measures ANOVAs confirmed

the increasing linear time-related effect only for the NCG, ($F(1, 25) = 4.78, p = .038, \eta_p^2 = .160$). The main effect of group on the belief-score was non-significant ($F(2, 92) = .064, p = .938, \eta_p^2 = .001$). Hence, the groups did not differ in the belief-domain. The group by time interaction was also non-significant (see Table 15), indicating that the change in overall belief-domain in the IG was not different to the change in the TCG and NCG. However, all groups were located on a very high level around 3 of 4 possible points from the beginning with no significant changes over time (see Figure 13), confirming our expectation the children from all groups would answer the knowledge questions correctly, regardless of the distance from the grandmother's house and the time of measurement.

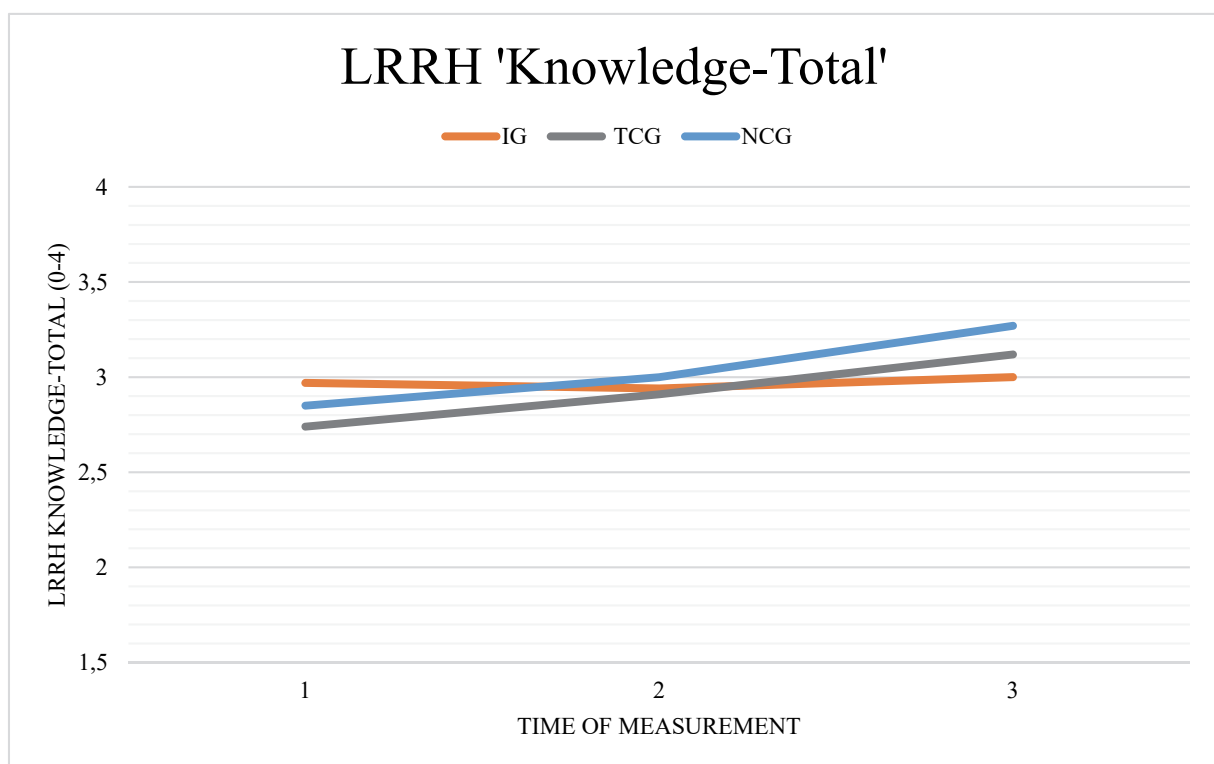


Figure 13. 'Knowledge-Total' score of the belief-domain from the perspective taking task 'Little Red Riding Hood (LRRH)' as a function of group (IG: Intervention group vs. TCG: Treated control group vs. NCG: No-treatment control group) and time of measurement (pre vs. post vs. follow-up).

Regarding the results of the emotion-domain at the near distance, Levene's tests were non-significant, confirming the homogeneity of variance for all three times of measurement (all $ps > .10$). Mauchly's test confirmed that the assumption of sphericity had been violated ($\chi^2(2) = 6.82, p = .033$), therefore degrees of freedom were corrected using Huynh-Feld estimates of sphericity ($\epsilon = .972$). Results of the repeated measures ANOVA revealed a significant main effect of time, $F(1.94, 178.83) = 12.27, p < .001, \eta_p^2 = .118$. Contrast analysis from one-factorial repeated measures ANOVAs confirmed the linear time-related effect for the NCG ($F(1, 25) = 13.56, p = .001, \eta_p^2 = .352$) and the TCG ($F(1, 33) = 10.71, p = .002, \eta_p^2 = .245$), but only a

statistical trend for the IG ($F(1, 34) = 3.50, p = .070, \eta_p^2 = .093$). There was a statistical trend for a main effect of group, $F(2, 92) = 2.86, p = .062, \eta_p^2 = .059$. Bonferroni post-hoc-tests revealed a marginally significant difference between the IG and the TCG, $p = .057$. No other comparisons were significant (all $ps > .10$), indicating that children from the IG generally answered more emotion questions correctly than children from the TCG (see Figure 14). We expected an increase over time only for the IG.

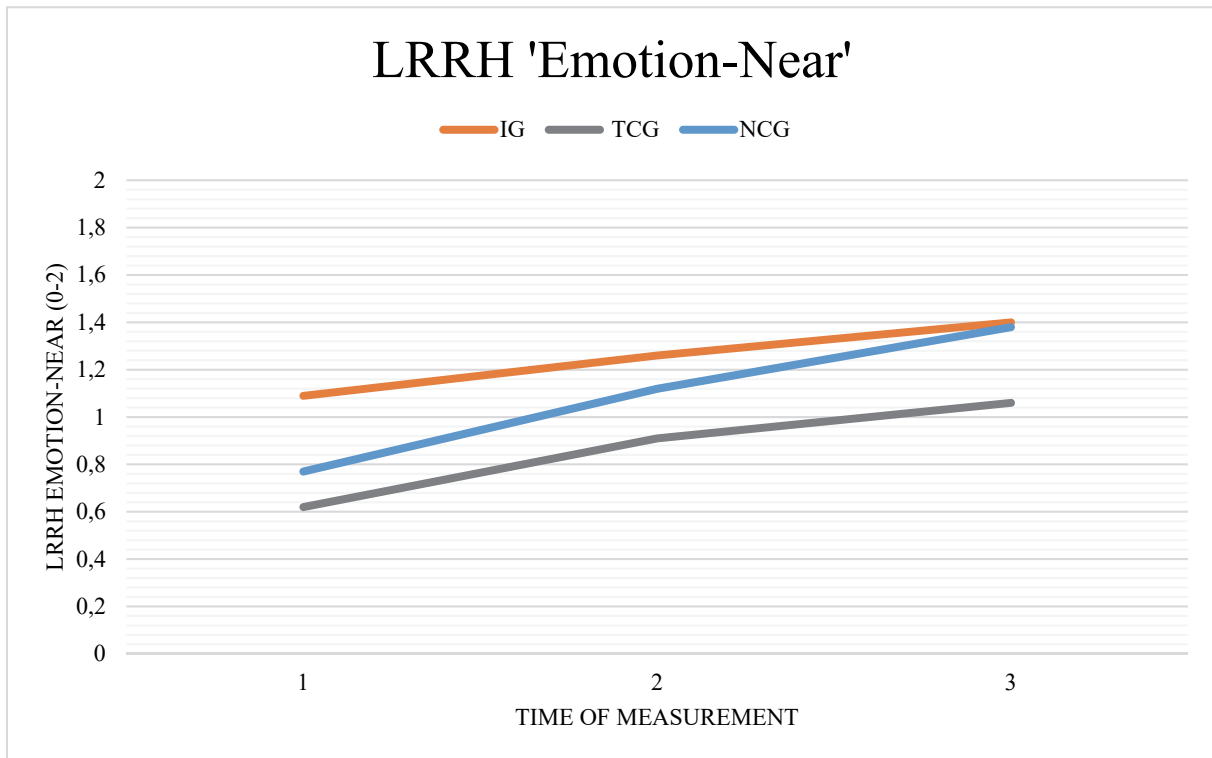


Figure 14. 'Emotion-Near' score of the emotion-domain from the perspective taking task 'Little Red Riding Hood (LRRH)' as a function of group (IG: Intervention group vs. TCG: Treated control group vs. NCG: No-treatment control group) and time of measurement (pre vs. post vs. follow-up).

The group by time interaction was non-significant (see Table 15), indicating that the change in the emotion-domain at the near distance in the IG was not different to the change in the TCG and NCG. Instead of an intervention effect, we found a strong proportional increase over time in correct answers to the emotion questions at the near distance for all groups.

Table 15. Effects of Intervention on Direct Child Assessments and Teacher-Reports.

Outcome measures	Pre-test		Post-test		Follow-up-test		ANOVA (group × time)	Effect size (η_p^2)
	<i>M</i>	(<i>SD</i>)	<i>M</i>	(<i>SD</i>)	<i>M</i>	(<i>SD</i>)		
LRRH								
Knowledge-total (MAX = 4)								
IG	3.0	(1.6)	2.9	(1.6)	3.0	(1.5)	$F(4, 184) =$	.013
TCG	2.7	(1.5)	2.9	(1.4)	3.1	(1.3)	.61, $p = .657$	
NCG	2.9	(1.3)	3.0	(1.3)	3.3	(1.0)		
Emotion-Near (MAX = 2)								
IG	1.1	(0.9)	1.3	(0.8)	1.4	(0.8)	$F(4, 184) =$	.010
TCG	0.6	(0.9)	0.9	(0.9)	1.1	(0.9)	.78, $p = .770$	
NCG	0.8	(0.8)	1.1	(0.8)	1.4	(0.8)		
IDS-P SEC								
Understanding Social Situations (MAX = 24)								
IG	10.7	(3.7)	14.0	(3.4)	14.3	(3.8)	$F(3.8, 173.4) =$	.105
TCG	11.6	(3.0)	13.5	(2.7)	12.9	(2.4)	$= 5.36, p =$	
NCG	13.4	(2.5)	13.3	(2.4)	14.8	(2.5)	.001***	
Self-regulation								
Latency %								
IG	38.2	(42.0)	28.0	(39.5)	20.4	(27.0)	$F(4, 180) =$	.020
TCG	45.0	(43.2)	32.3	(37.0)	43.8	(45.7)	.904, $p = .463$	
NCG	31.2	(38.7)	40.8	(43.9)	42.5	(44.6)		
Waiting behavior %								
IG	85.2	(23.9)	89.9	(18.4)	90.1	(18.6)	$F(4, 180) =$	.038
TCG	86.3	(25.0)	80.2	(29.3)	91.5	(15.0)	1.77, $p = .138$	
NCG	75.8	(29.6)	80.4	(26.3)	84.2	(23.5)		
Number of touches								
IG	3.2	(3.6)	3.3	(3.5)	2.6	(3.0)	$F(4, 180) =$	.034
TCG	2.4	(3.3)	2.9	(3.0)	2.9	(3.8)	1.60, $p = .177$	
NCG	3.5	(3.6)	2.2	(2.0)	3.9	(3.7)		
KIPPS+R								
Total score (MAX = 108)								
IG	82.9	(14.5)	86.4	(17.5)	88.7	(15.9)	$F(4, 186) =$	.017
TCG	92.6	(12.8)	96.4	(15.7)	94.5	(15.8)	.795, $p = .530$	
NCG	84.0	(18.3)	85.0	(21.2)	87.8	(17.7)		

⁺ $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$.

Direct Child Assessments: Emotional Knowledge

For assessing children's emotional knowledge the subscale 'Socioemotional Competence (SEC)' of the IDS-P was administered, which is divided into two tasks: testing the ability of 'Recognizing Emotions (RE)' yielding scores from 0-4, and the 'Understanding of Social Situations (USS)' yielding scores from 0-24. We found a ceiling effect for the RE-task (seen in Figure 15), Lilliefors corrected Kolmogorov-Smirnov tests showed that the RE-data deviate significantly from normal (all $ps < .001$). When looking at skewness, which ranges from -1.153 to -1.479 at pre-test, from -1.452 to -2.554 at post-test, and from -1.114 to -1.427 at follow-up-

test, these negative values indicate a left skewed distribution, in other words there is a heavy build-up of high scores confirming the ceiling effect. The RE-task was excluded from further analysis, because the high scores from pre-test cannot increase to post- and follow-up-test.

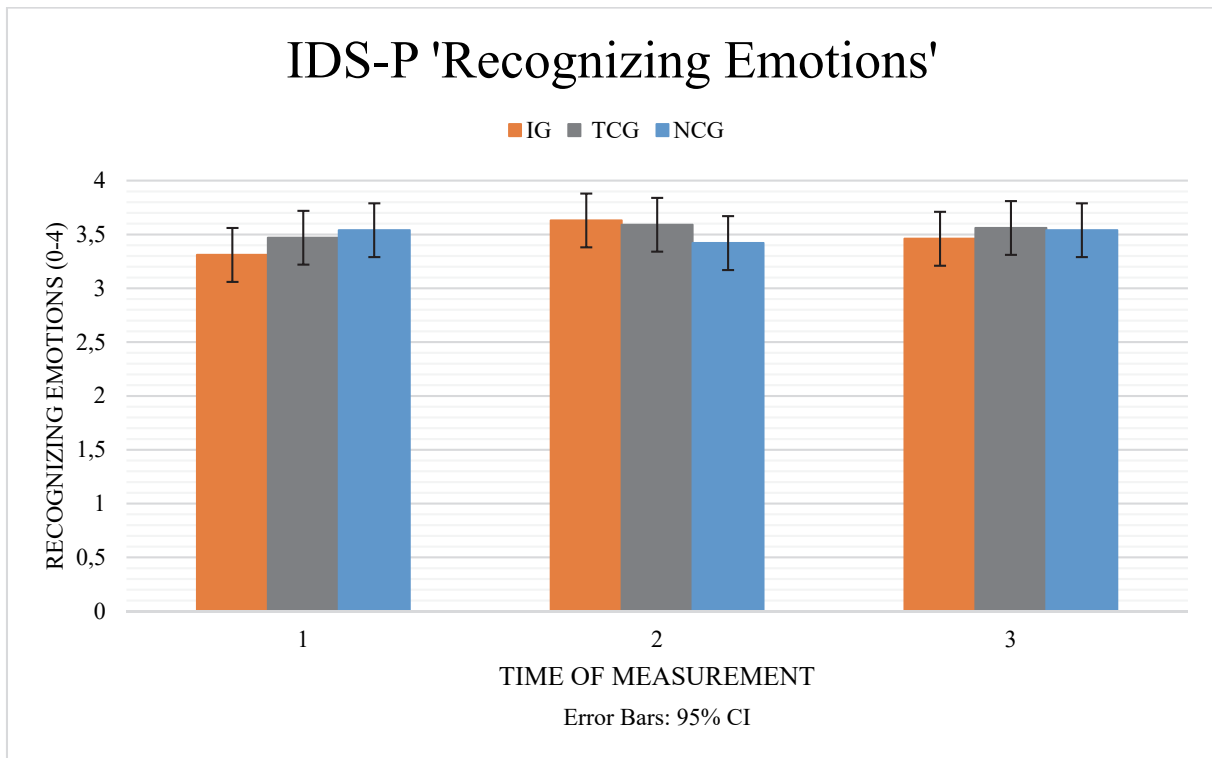


Figure 15. Mean number of correct replies in the 'Recognizing Emotions' task of the IDS-P as a function of group (IG: Intervention group vs. TCG: Treated control group vs. NCG: No-treatment control group) and time (pre vs. post vs. follow-up).

Hence, all results reported in this section are based on the second task 'Understanding of Social Situations' (USS), as reported in Table 15. Levene's test for the USS were significant at post-test ($F(2, 91) = 4.79, p = .011$) and variances were also unequal at follow-up-test ($F(2, 91) = 6.80, p = .002$). Mauchly's test confirmed that the assumption of sphericity had been violated ($\chi^2(2) = 8.86, p = .012$) therefore degrees of freedom were corrected using Huynh-Feld estimates of sphericity ($\epsilon = .953$).

Repeated measures ANOVA for the USS-task revealed a significant main effect of time, $F(1.91, 173.37) = 21.17, p < .001, \eta_p^2 = .189$. Analysis from one-factorial repeated measures ANOVAs confirmed this linear time-related effect for the IG ($F(1, 33) = 23.01, p < .001, \eta_p^2 = .411$), the NCG ($F(1, 25) = 5.49, p = .027, \eta_p^2 = .180$), and for the TCG ($F(1, 33) = 5.25, p = .047, \eta_p^2 = .114$). Effect sizes from the one-factorial ANOVAs indicated that, even though all groups improved their understanding of social situations over time, children from the IG improved the most. There was a significant disordinal group by time interaction (see Table 15). This interaction effect is illustrated in Figure 16. There was also no main effect of group ($F(2,$

91) = 1.81, $p = .170$, $\eta_p^2 = .038$), but this result has to be interpreted in the light of the disordinal interaction effect.

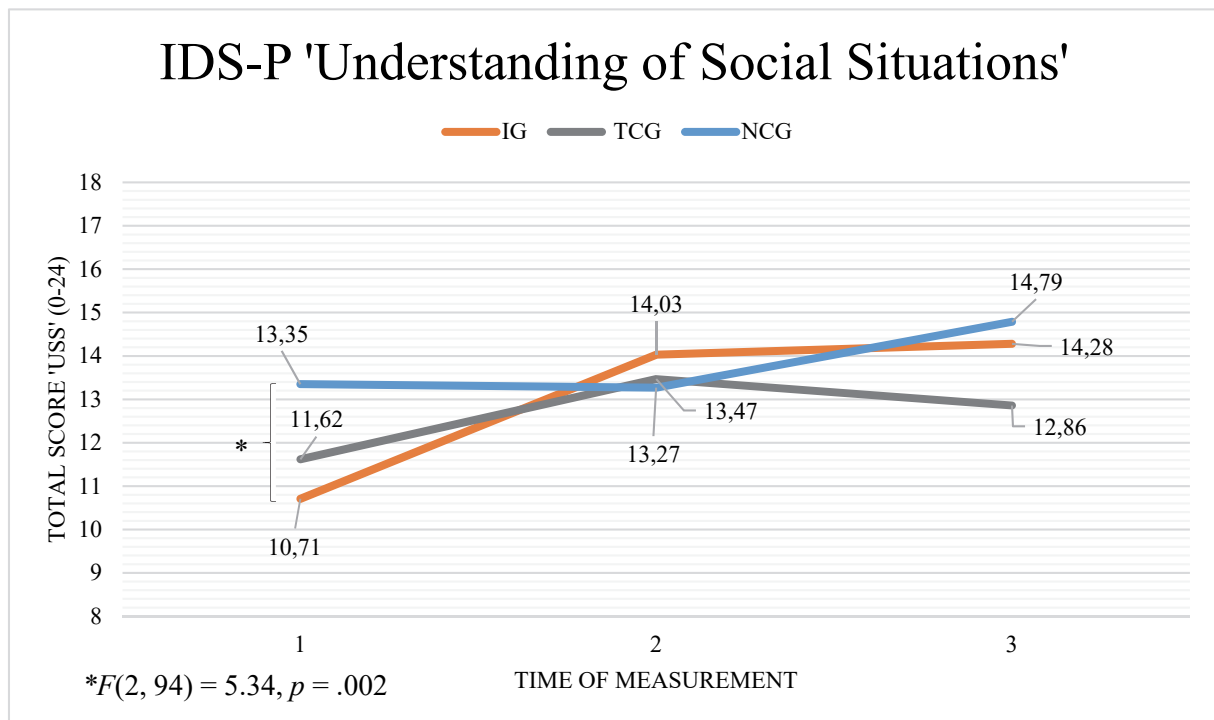


Figure 16. Mean number of correct replies in the ‘Understanding of Social Situations’ task of the IDS-P as a function of group (IG: Intervention group vs. TCG: Treated control group vs. NCG: No-treatment control group) and time (pre vs. post vs. follow-up).

Detailed analysis of the interaction effect. In an attempt to determine the direction of the interaction, separate repeated measures ANOVAs were conducted, where the IG was first compared to the NCG and subsequently to the TCG. Results from the 2 (IG vs. NCG) \times 3 (pre vs. post vs. follow-up) repeated measures ANOVA showed that ‘Understanding Social Situations’ at post-test was significantly higher than at pre-test and at follow-up-test significantly higher than at post-test, as can be seen in the increasing, linear time trend, $F(1, 58) = 24.74, p < .001, \eta_p^2 = .299$. The main effect of group on ‘Understanding Social Situations’ was non-significant ($F(1, 58) = 1.43, p = .237, \eta_p^2 = .024$), indicating that the understanding of social situations in the IG was not significantly different to the NCG. However, results showed a significant disordinal interaction between time and group, $F(2, 116) = 8.04, p = .001, \eta_p^2 = .122$. Contrast analysis show quadratic interaction, $F(1, 58) = 16.16, p < .001, \eta_p^2 = .218$, indicating that, at pre-test, the NCG was rated higher than the IG, at post-test the IG was already rated higher and at follow-up both groups were rated similarly, indicating that children from the IG register a stronger growth in the understanding and interpretation of social situations than children from the NCG.

The next comparison was done by a 2 (IG vs. TCG) \times 3 (pre vs. post vs. follow-up) repeated measures ANOVA, revealing a different pattern. There was also a significant disordinal interaction between time and group, $F(2, 132) = 4.01, p = .020, \eta_p^2 = .057$, but contrast analysis show a linear interaction, $F(1, 66) = 5.89, p = .018, \eta_p^2 = .082$, indicating that at pre-test, the TCG was rated higher than the IG, at post- and a bit more at follow-up-test the IG was rated distinctly higher than the TCG, indicating that children from the IG improved their understanding and interpretation of social situations more strongly than children from the TCG. The IG especially caught up from pre- to post-test, indicating that the pretend-play intervention in the IG had a stronger effect than dialogic reading in the TCG. Additionally, a significant linear, increasing time trend, $F(1, 66) = 25.24, p < .001, \eta_p^2 = .277$, indicated an increase for both groups over time. The main effect of group on the cognitive role-play competence was non-significant ($F(1, 66) = .337, p = .563, \eta_p^2 = .005$), but here the disordinal interaction effect has to be taken into account.

Contrast analysis from one-factorial repeated measures ANOVAs for each group confirmed the linear time-related effect for the IG ($F(1, 33) = 23.01, p < .001, \eta_p^2 = .441$), the NCG ($F(1, 25) = 5.49, p = .027, \eta_p^2 = .180$), and the TCG ($F(1, 33) = 4.25, p = .047, \eta_p^2 = .114$). These findings indicate that although there was a medium effect size in the natural increase in understanding and interpreting social situations (as shown by both control groups), the effect was much stronger for children in the IG. Taken together, these results give rise to the assumption that participation in the pretend-play intervention fostered children's understanding and interpretation of social situations, as measured with the IDS-P subscale SEC. And that improvement in emotion knowledge seems to be stable beyond the intervention period, there is even a slight improvement from post- to follow-up testing.

Direct Child Assessments: Self-Regulation

Self-regulation was operationalized as an inhibition task, where children sat in front of attractive toys and were not to touch them, in accordance to the delay-of-gratification task by Saltz et al. (1977). Table 15 provides a summary of the three scores that were of interest: the latency in percent until the child touched the toys for the first time (which would be 100% if the child had not touched the toys), the percentage of aggregated waiting behavior (which would also be 100% if the child had not touched the toys) across the whole task, and the total number of touches throughout the task (absolute value).

In regard to the latency, Levene's test for was significant at follow-up-test ($F(2,90) = 13.39, p < .001$). Mauchly's test confirmed that the assumption of sphericity had not been violated ($p = .647$). Results revealed no main effect of time ($F(2, 180) = .381, p = .684, \eta_p^2 =$

.004.). The main effect of group on latency was also non-significant ($F(2, 90) = 2.05, p = .135, \eta_p^2 = .044$). The group by time interaction was non-significant (see Table 15) as well. Hence, the latency and a potential increase in latency did not differ between the groups. No effect of the intervention on the latency until the child touched the toys for the first time could be detected.

In regard to the percentage of waiting behavior, Levene's test for was significant at post-test ($F(2,90) = 4.54, p = .013$). Mauchly's test confirmed that the assumption of sphericity had not been violated ($p = .141$). Results showed a main effect of time, $F(2, 180) = 4.34, p = .014, \eta_p^2 = .046$. Polynomial contrasts revealed a linear time trend, $F(1, 90) = 6.3, p = .014, \eta_p^2 = .065$, indicating a proportional increase in waiting behavior over time for all groups. Contrast analysis from one-factorial repeated measures ANOVAs for each group revealed quadratic time-related effect only for the TCG ($F(1, 33) = 5.86, p = .021, \eta_p^2 = .151$), but not for the IG and NCG (both $ps > .10$), which is illustrated in Figure 17.

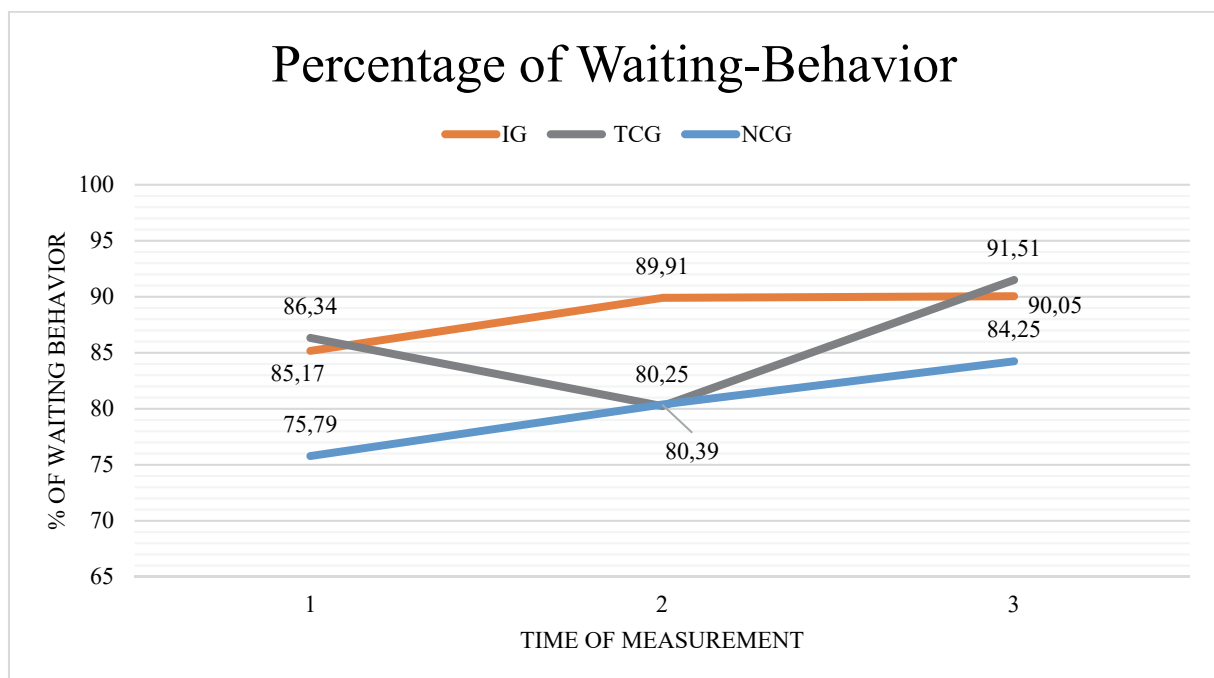


Figure 17. Percentage of aggregated waiting behavior as a function of group (IG: Intervention group vs. TCG: Treated control group vs. NCG: No-treatment control group) and time (pre vs. post vs. follow-up).

The U-shaped quadratic effect of the TCG is qualified by a decrease in waiting behavior from pre- to post-test, and an increase from post- to follow-up-test. The main effect of group on the percentage of waiting behavior was non-significant ($F(2, 90) = 1.274, p = .285, \eta_p^2 = .028$). Therefore, the percentage of waiting behavior did not differ between the groups. The group by time interaction was also non-significant (see Table 15), indicating that the change in

overall waiting behavior in the IG was not different to the change in the control groups. No effect of the intervention on the percentage of waiting behavior could be detected.

And lastly, in regard to the total amount of touches, Levene's test for was significant at post-test ($F(2,90) = 3.19, p = .046$). Mauchly's test confirmed that the assumption of sphericity had not been violated ($p = .171$). Results revealed that the main effect of time was non-significant ($F(2, 180) = .366, p = .694, \eta_p^2 = .004$). The main effect of group was also non-significant ($F(2, 90) = .287, p = .752, \eta_p^2 = .006$), and the group by time interaction was non-significant (see Table 15) as well. Hence, the total amount of touches and a potential decrease did not differ between the groups. No effect of the intervention on the total amount of touches could be detected in our waiting-task. In sum, participation in the pretend-play intervention did not improve the self-regulation the way it was operationalized in this study.

Teacher-Report of Child: KIPPS+R

The six subscales of the KIPPS together yield scores from 0-108, given that the subscale 'Regulation' consisting of eight items was adjusted to the five other subscales⁶, each consisting of six items. All results reported for the KIPPS+R can be interpreted unreservedly, because Levene's tests were non-significant, confirming the homogeneity of variance for all groups at all three times of measurements (all $ps > .05$). Mauchly's test confirmed that the assumption of sphericity had not been violated ($p = .50$), therefore degrees of freedom were not corrected.

As seen in Table 15, no significant group by time interaction was found for the distal measure of socioemotional competence, the KIPPS+R. However, the repeated measures ANOVA revealed a significant main effect of time, $F(2, 186) = 12.56, p < .001, \eta_p^2 = .119$. Analysis from one-factorial repeated measures ANOVAs confirmed a linear time-related effect for the IG ($F(1, 35) = 14.52, p = .001, \eta_p^2 = .293$) and for the TCG ($F(1, 33) = 7.86, p = .008, \eta_p^2 = .192$), but only a trend for the NCG ($F(1, 25) = 3.3, p = .081, \eta_p^2 = .116$). Effect sizes indicated that, even though all groups registered a proportional linear increase in socioemotional competence over time, children from the IG improved the most (see Figure 18).

⁶ This adjustment was done by dividing the sum of the 'Regulation'-scale by eight and multiplying the result by six.

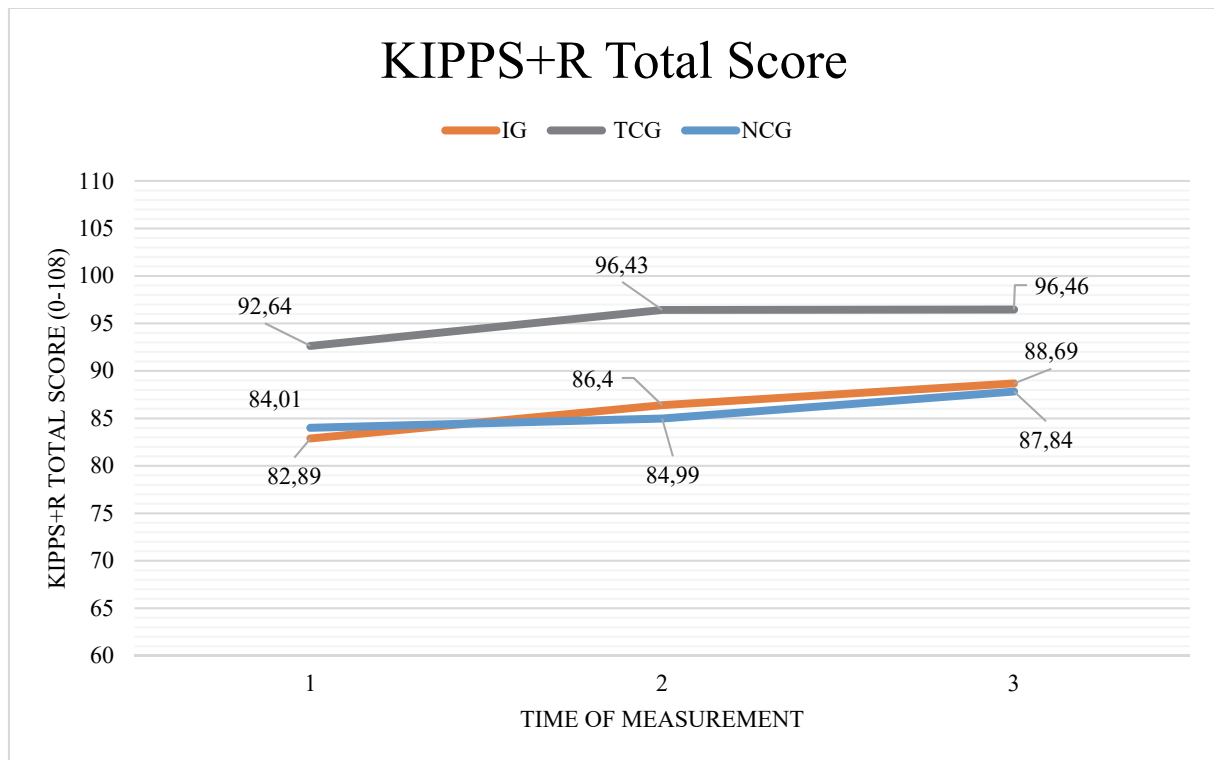


Figure 18. KIPPS+R 'Total Score' as a function of group (IG: Intervention group vs. TCG: Treated control group vs. NCG: No-treatment control group) and time (pre vs. post vs. follow-up).

The main effect of group on socioemotional competence was also significant, $F(2, 93) = 3.87$, $p = .024$, $\eta_p^2 = .077$. Simple contrast analysis revealed a significant difference between the TCG and the IG ($p = .017$), but no difference between NCG and IG ($p = .926$). No interaction effect of the pretend-play intervention on the socioemotional competence, as measured with the KIPPS+R, could be detected (see Table 15). However, the fact that the linear time-related effect was strongest for the IG gives rise to the assumption that participation in the pretend-play intervention fostered children's socioemotional competences, as measured with the KIPSS+R.

7.5 Discussion

The main result of this study was that the pretend-play intervention significantly increased children's cognitive role-play competence and fostered their emotion knowledge. In regard of the emotion knowledge, we found that participation in the pretend-play intervention improved the understanding and interpretation of social situations, because children from the IG registered a stronger growth in the task 'Understanding of Social Situations' of the IDS-P subscale 'Socioemotional Competences' (Grob et al., 2013), than children from both control conditions. Results revealed that the intervention was successful in fostering emotion knowledge, with stable effects at follow-up.

In regard to the play competences, results from the Tools of the Play Scale (TOPS; Seeger & Holodynski, 2016) indicate that even though all groups improved their cognitive role-play ability over time, children from the IG improved the most, which shows that participation in the pretend-play intervention fostered children's cognitive role-play abilities, which is the prerequisite for all higher forms of play. These results revealed that the Tools of the Play were successfully transmitted by means of adult's scaffolding and had increasing long-term-effects beyond the intervention period, as can be seen in the linear increase of the IG on the TOPS 'Cognition' subscale. Apparently children of the intervention group improved their cognitive role-play abilities throughout the intervention and continued to improve them by continuous application. There was no evidence that the intervention affected the TOPS's subscales 'Play-Action', 'Language', 'Emotion' or the 'Total Score', even though children had numerous opportunities in the intervention to observe play-actions and prototypical expressions of emotions in the PL, imitate them, and enact complex emotion eliciting situations from the motive perspective of a chosen character.

Furthermore, there was no evidence that the intervention affected the second play measure, the Affect-in-Play-Scale – Preschool Version (APS-P; Kaugars & Russ, 2009), which was administered to find out to what extent children could transfer the acquired role-play competences from the pretend-play intervention onto everyday situations. If children were able to transfer and apply what they had learned onto alone situations that should have been reflected on the APS-P's subscales, children from the IG were expected to reach higher APS-P scores than children from the control groups, which was not supported by the findings. A possible explanation could be that the intervention provided a very structured setting, with comprehensive adult guidance and scaffolding, which is a completely different demand profile than the open setting of the APS-P and a transfer might still be too challenging for preschool children.

Another explanation could be a competence vs. performance problem, because the provided instruction for the experimenter was not expedient. The original test manual explicitly instructs for the experimenter to passively sit next to the child, instead of mirroring and encouraging the child's play, which resulted in a very unnatural test setting of the APS-P. This passive presence of the adult, without interacting or joining the play, could have possibly inhibited the child's play behavior, causing the child to feel extremely self-conscious. This unnatural setting could have caused children to stay below their real play-competences and not perform on their real competence level. In contrast in the TOPS, the experimenter fully engaged with the child in joint play, encouraged the child's play by scaffolding prompts, and carried the

test procedure. This carrying of the test-procedure by the experimenter allowed for finishing the test even with children who did not actively engage, if children did not engage in the APS-P the test was discontinued, making the APS-P much more depending on the performance.

Regarding the emotional perspective taking, we administered a experiments following Ronfard and Harris (2013), who examined children's representations of a story (a synopsis of Little Red Riding Hood) in which the girl encountered a surprising outcome (the wolf) upon arriving at her destination (grandmother's house). Results from the present study are consistent with the work of Ronfard and Harris (2013), who found also that children between 3 and 6 years of age shifted in the mental states they attributed depending on the distance of Little Red Riding Hood from the grandmother's house (i.e., the unexpected outcome). In the original study and in the present study most children consistently recognized that Little Red Riding Hood did not know about the unexpected outcome (wolf) at any point, but they increasingly attributed feelings consistent with the surprising outcome (fear). In other words, children displayed a stable understanding of what Little Red Riding Hood knew or did not know, but frequently attributed feelings that were inconsistent with what they had claimed that the girl knew. In the present study, as expected, we found no difference on the 'Knowledge-Total' scale in the Little Red Riding Hood' experiment, indicating no change across time in the belief-domain in the three groups. The three groups were located on a very high level around 3 of 4 possible points from the beginning with no significant changes, confirming the hypothesis that there were no changes in the belief-domain, i.e. children from all groups answered the knowledge questions correctly, regardless of the distance from the grandmother's house and irrespective of the time of measurement.

Against our expectations, the intervention did not affect the 'Emotion-Near' score in the 'Little Red Riding Hood' experiment, falsifying our hypothesis that the intervention would make children better at attributing emotions to a story character and less susceptible to an effect of distance, compared to the TCG and NCG. We hypothesized that the IG would learn to distance themselves from their dominant impulses and take the emotional perspective of a character, regardless of their own emotions. However, our findings failed to prove that both at post- and follow-up test. Hence, children's emotion attributions to a story character seems to not be a fixed function of their theory-of-mind understanding, but a dynamic pattern that changes as the story unfolds (Harris et al., 2014), which is not affected by the pretend-play intervention implemented in this study.

Also against our expectations and in regard to self-regulation, which was operationalized as an inhibition task, where children had to sit in front of attractive toys and not touch them,

there was no evidence of an intervention effect, neither at post- nor at follow-up test. Specifically, we expected children from the IG to have a higher latency, more waiting, and less touching, because in the intervention the self-regulation was trained in regard to distancing oneself from dominant impulses, in comparison to the control groups. However, neither the latency until children touched the toys for the first time, nor the proportional waiting-behavior, nor the total amount of touches were affected by the pretend-play intervention. We also expected children from the TCG to do better than the NCG on all three scales, because children were instructed to think about their favorite story while they wait, which would make waiting easier and because emotion awareness was supposedly trained in the IG and TCG, because both groups were exposed to dramatized reading. In dramatized reading emotion awareness can be promoted, because when following the plot children can emotionally experience and feel the actions of the main character as the story unfolds (El'koninova, 2001a), and the expression of prototypical emotions by the storyteller allows children to visually match an external expression to the inner sensation they feel. Nonetheless, neither the latency until children touched the toys for the first time, nor the proportional waiting-behavior, nor the total amount of touches were affected by the dialogic reading intervention.

Lastly, we hypothesized that kindergarten teachers would rate children who participated in the pretend-play intervention as socioemotionally more competent on the KIPPS+R, compared to children who had participated in the dialogic reading and children who had not participated in any program. Results failed to prove an interaction effect both at post- and follow-up test, children of all groups improved over time, indicating a maturation effect that might naturally occur over a period of six month. However, contrast analysis of the main effect of time provided evidence that the linear increase across the three times of measurement was strongest for the intervention group. This result allow a certain optimism that if power is increased the interaction term could reach significance, hence proving an intervention effect.

At first glance, our results do not appear to replicate the findings of Saltz et al. (1977), who found a positive effect of thematic fantasy pretend-play on reflective emotion regulation. However, the sample in their study included only economically disadvantaged children, drawing subjects from a low-level economic population like the Head Start Program. Socioemotional intervention studies with Head Start children often seem to find positive training effects (Barnett, 1995; Biermann et al., 2008) which could be due to the lower socio-economic status (SES) of their families. Head Start is a program that provides comprehensive early childhood education to low-income children and their families. The reason for targeting

this socioeconomically disadvantaged population is that family-, parenting-, and child risk factors are high. Approximately 35% of Head Start families exhibit at least three major family risk factors (e.g., single parenthood, poverty, depression, life stress, psychiatric illness, parent history of drug abuse, child abuse, spouse abuse) and about 45% of Head Start mothers exhibit high rates of physically negative discipline, which is also a risk factor in the development of behavioral problems (Webster-Stratton, Reid, & Hammond, 2001). Hence, children from families with lower SES have higher rates of behavioral problems and are much more dependent on the socialization in preschool settings, because they lack adequate role-models at home. In contrast, we assume that the children who participated in the present study all came from average families in Münster, which presumably have normal to high SES, since people in Münster belong to the wealthiest in Germany (Baumeister, 2011). It can therefore be assumed that in Münsteran families' socioemotional competences can normally develop because children have adequate role models and less risk factors, hence in their development those children are less dependent on the socialization in the preschool setting and they have less behavioral problems in general.

Because our results do not appear to replicate the findings of Saltz et al. (1977), it should be added that Saltz et al. (1977) conducted their study 40 years ago and we cannot expect programs that were suitable for children almost half a decade ago to still be beneficial today. Specifically, results from the TOPS, or rather the lack thereof, are in line with the alarming observation that imaginative play is disappearing from children's lives (Leong & Bodrova, 2012; Brédikyté, 2011; Singer et al., 2009), likewise children in our study were not able to engage in elaborate pretend-play. Bodrova et al. (2013) observed that preschool children are often stuck on primitive play levels and both the quantity and quality of children's play has declined, which is also in line with our findings and the low scores children have achieved across the various TOPS scales. This lack of play competences in children makes it necessary to scaffold children's play abilities in the ZPD, in order to support the development of mature play forms and enable healthy development. Hirsh-Pasek et al. (2008) argued that preschool settings might be the only place left, where children have the opportunity to learn how to pretend play, which is also supported by our findings. The pattern of the TOPS subscale 'Cognition' shows that by means of adult scaffolding children registered a continuous development of basic play competences that serve as a prerequisite for further play competences. This supports our argument that development should be fostered thru guided pretend-play, an activity that naturally occurs, develops and takes full effect in children of three to six years of age, making our intervention an appropriate, child-orientation means for preschool settings.

To some extent the present study in line with findings from previous intervention studies that aimed to facilitate specific play processes and evaluated the efficacy of their program using the APS (Moore & Russ, 2008). Moore and Russ, randomly assigned 50 children from 6 to 8 years to one of three experimental groups. The first play group received an affect intervention, where children were given a set of toys and the experimenters used standardized scripts and prompts to have each child play out four stories with affective content per session and one of their own choosing. The second play group received an imagination intervention, where children were given the same set of toys and standardized prompts, but were encouraged to play out four stories with high fantasy content. And the third group was a control condition, where children did puzzles and colored in coloring books. Each child participated in five, 30-minute one-to-one sessions with the examiner, over a period of 3 to 5 weeks, in the two intervention groups, the examiners used modeling and reinforcement to encourage play. Effects were evaluated using three times of measurement and various measures of play assessment and affect assessments, using a multi-method approach including observational data, interviews, and self-reports. Results indicated that play improved at follow-up in the imagination play group, but there were no differences on the other outcome measures. Their training study applied a completely different kind of play intervention, they failed to prove long-term effects of a pretend-play intervention on emotion regulation as rated by teachers. Also, they did not evaluate the pretend-play intervals, which was an area that we targeted with our intervention. And, the APS-P is an instrument primarily used in the clinical setting, often used for therapy evaluation. Maybe it is just not applicable in non-clinical settings. Hence, a comparison is difficult and should be done with caution, but the fact that play improved at follow-up “is an important finding because it adds to the body of literature showing that play can be improved with systematic intervention.” (Moore & Russ, 2008, p. 433).

When comparing the results of this studies with the results of the existing intervention programs discussed in chapter 2.4.1 *Existing Programs for Preschool Settings*, it becomes apparent that those existing programs mostly achieved effects on teacher ratings. Interestingly, those ratings were done by the same teachers that conducted the intervention program, therefore the results can be confounded by biased raters and therefore have limited validity, for example the evaluations of *Lubo aus dem All* and *Verhaltenstraining im Kindergarten* were done by the same teachers that executed the intervention programs (Hillenbrand et al., 2009; Wadepohl et al., 2011). The same is true for *Papilio* and *Kindergarten plus* (Klinkhammer, 2013), the validity for these evaluation is impaired by the fact that effects were only found in teacher ratings, the same teachers that conducted the program. In contrast in this study teacher ratings

were done by independent teachers, not by the PL's conducting the intervention. Additionally, effects of this study were achieved in the area of emotion knowledge and understanding of social display rules of emotion expressions, as measured with the IDS-P subscale 'Understanding Social Situations', where scores are independent of subjective judgements, leaving results of the present study more valid.

Limitations and future directions. Overall, the results of Study 2 are not really conclusive as to whether the findings regarding a lack of more positive outcomes reflected a weakness in the treatment, a measurement problem, or a design feature (e.g., randomization at the kindergarten level). In future research, it would be useful to address the following issues.

Limitations of the intervention. Regarding the treatment, one possible explanation for the lack of more positive findings could be the content-related structure. The content-related structure is the procedure by which and when plots are enacted. The procedure of the enactment of plots might have to be linked more closely to the ZPD and the individual development levels of children's role-play abilities. The scaffolding of role-play has very specific effects, which means that the intervention can only take effect depending on specific initial requirements, in other words, it can only take an effect in children who already possess a minimum of cognitive requirements necessary for pretend-play. Vice versa, the intervention cannot take effect in children who do not possess those basic role-play competences, which might be the case for children with developmental risks or children who achieved very low scores on the TOPS, especially on the subscale 'Cognition'. This subscale entails items such as 'Sorting blocks and gifts in shelves', 'Substituting blocks as toys', 'Recommending suitable gift for opposite gender', and 'Offering further gift'. These items represent the minimum of abilities necessary for basic pretend-play, such as the understanding and setup of a play location, role-taking, perspective taking, and simple-play actions. However, when looking at the data at pre-test, 76% of the NCG (Mdn = 12.5), 55% of the TCG (Mdn = 15), and 77% of the IG (Mdn = 12.5) had only reached a score of 15 (possible maximum of 30) or less on the 'Cognition' scale, demonstrating that well over half the children of the total sample were only able to produce very rudimentary cognitive play actions. In consequence, this means that we might have overextended children in the intervention, because from the beginning (module 1) we expected the most challenging and advanced element of elaborate play – the enactment of emotion. However, the enactment of emotions can only consciously and independently take place, after the action-frame with corresponding play-actions and characters, is understood and internalized. Therefore, a possible explanation of the marginal findings could be that we lost

children at the very beginning already. Future studies should take this into account and mediate basic competences, before starting with the enactment of emotions (see chap. 8.1 for more details).

Another possible explanation for the lack of more positive findings, due to a weakness of the intervention could be the age of participating children, they might have been too young. For example, Lindqvist (1995) observed that the children's age plays a crucial role in the development of play. The ability to consciously take on a character in pretend play is probably not acquired until children are six or seven years old (Lindqvist, 1995). Lindqvist concluded that in play it is quite fruitful, if not necessary, that children are not from the same age group, as to enable mutual learning. Future studies could try to include a good proportion of six-year-olds. Participation of six-year olds, which are capable of and enthusiastic about role-play of emotional episodes would facilitate mutual learning, where younger children or less elaborate players could learn elaborate play from more competent play partners.

A further limitation could be the selected intervention period. Even though the intervention lasted for two months in the present study, the overall length of intervention might still be too short, especially in comparison to the intervention study conducted by Saltz and colleagues (1977) whose intervention lasted for the whole school year. Maybe the individual modules were too short also. In Study 1 each module lasted 45 min, which was too long, children were exhausted and towards the end of each session it was obvious that children were not receptive anymore. In Study 2 we tried to address this issue by shortening the individual sessions to 25 minutes. This cutback could have been too drastic, preventing children from fully immersing in pretend-play. Especially in the light of effective play time, which was limited due to other contents of the intervention, such as dramatized reading and organizational aspects. In sum, of the 25 minutes of each module about 10 minutes were spent playing, at 15 modules that leaves 150 minutes total for play, which might not have been enough.

Furthermore, it needs to be critically noted that we failed to ensure a structured transfer of the intervention content into children's everyday lives. This default originates from the fact that we were not able to leave the intervention materials (fixed and flexible props) in the classrooms. Not that we expected for the props to have a promoting effect on their own, but children might have picked them up and used them to engage in independent pretend-play in their free-play time, hence gaining more experience with using props and become encouraged to use other "open-ended materials (for example, a rock, stick, or paper plate)." (Leong & Bodrova, 2012, p. 33). There were several factors that prevented that. First, for organizational reasons we were not allowed to put the materials in the group rooms, they would have taken up

too much space in the already crowded rooms. Second, not all participating children of an intervention group stemmed from one classroom and in some preschools the individual classrooms were even in separate buildings, which would have excluded certain children from access to the materials, hence no equal exposure could have been granted. Third, teachers of the respective preschools were not trained, therefore they were not able to pick up on the intervention strategies and implement them in the intended sense in their daily routines of the preschool. That implies that future studies should ensure a structured transfer and that there are different options for how to do that. On one hand, there are options to ensure a transfer within the intervention, for instance by providing more room for child-centered play where children choose themes and organize props, assign roles and individually decide how long and how actively they want to participate. Or by ending each session with a reflection on joint experiences thru various means, for example by drawing the experiences of the session and discussing the paintings, or oral story telling supported by hand-puppets. On the other hand, there are options to ensure a transfer beyond the limits of an intervention module, such as making the interventions materials available for children at all times, while making sure that free time is available, where they can engage in pretend-play. Another option would be to actively train kindergarten teachers in supporting and scaffolding pretend-play, managing play, supporting play-actions and mediating the Tools of the Play, almost like turning the teachers into multipliers.

Limitations of the test-battery. Regarding the measurements, a possible explanation for the absence of more positive findings due to measurement problems could be that the measures used may have been too global. If for example our measure of self-regulation was too global, future studies could try another measure of self-regulation. “According to Vygotsky (1930–1935/1978), a fundamental feature and outcome of sociodramatic play is self-restraint. While playing, children must inhibit impulses in favor of following social rules inherent in the make-believe context.” (Elias & Berk, 2002, p. 232). Hence, an observational naturalistic measure of self-regulation for preschool settings could be used. For example, self-regulation could be assessed during clean-up periods and circle time; Elias and Berk (2002), Alessandri (1992), and Huston-Stein, Friederich-Cofer, and Susman (1977) previously used these two naturalistic contexts to assess self-regulation. Huston-Stein et al. (1977) developed a coding system for these two situations, assessing if the child is attentive during circle time, assessing if the child takes responsibility for cleaning up his or her materials used during free play, and if the child assists other children during clean-up.

Regarding the teacher ratings of children's socioemotional competences on the KIPPS+R, where we only found a main effect of time in this study, but a significant interaction effect in Study 1, it needs to be taken into account that in the present study the no-treatment control children were recruited from the same institutions as the intervention and treated-control children. Two possible explanations for the non-finding result from that procedure, by which the data could have been confounded. Either there was a dissemination effect, which means effects of the two treatments (pretend-play vs. dialogic reading) had already positively influenced the other children of the respective preschools, because children from the intervention and treated control group transferred the acquired skills to their peers. Or the teachers that were filling out the questionnaires were biased, because they knew that an intervention had taken place and therefore rated all children (IG, TCG, and NCG) better. If teachers were biased, this would be a halo-effect of the intervention.

Furthermore, the non-findings of the APS-P indicate that this measure is too remote from the intervention contents, or just too global, or the instructing for the experimenter is inadequate (see above) or that children could not transfer the appropriated play abilities onto the alone-play situation of the APS-P. In future studies a different play measure could be used in addition to the TOPS. For example the Play-Observation Scale (POS; Rubin, 2001) could be used. The POS is an observatory taxonomy designed to assess the structural components of children's play nested within social participatory categories. When applying the POS, children are observed for a series of 10-s intervals for 5 min per day in at least three separate free-play situations on three different days, in order to obtain a valid measure of the child's general play styles. In total, each child is observed for 15 min, yielding 90 coding intervals per child. Hence, the POS employs a norm-based time sampling methodology within which 10-sec segments are coded for both social participation and the cognitive quality of children's play. These two aspects could be the advantage of the POS. The social participation assesses how the child is playing and interacting with other children, for instance whether the child is engaged in solitary, parallel, or group play. The cognitive quality assesses how the child engages in different types of play, such as functional, exploratory, constructive, or dramatic play, or games. The reason why we have not applied this method is that this kind of observational methodology is very time consuming and expensive (Coplan & Rubin, 1998), especially in light of the sample size and the three times of measurement. Teachers provide another source of information concerning children's behavior "and can represent a quicker and less expensive alternative or accompaniment to behavioral observations." (ibid., p. 74).

So alternatively to the APS-P, a possible teacher rating scale is the Preschool Play Behavior Scale (PPBS) (Coplan & Rubin, 1998), which assesses children's social and nonsocial play behaviors. The PPBS is an 18-item questionnaire that was designed to assess five forms of free play: (1) reticent behavior (unoccupied and/or on looking behaviors), (2) solitary-passive behavior (solitary-exploratory plus constructive behaviors), (3) solitary-active behavior (solitary-functional plus dramatic behavior), (4) social play (all forms of group interaction plus peer conversation) and (5) rough-play (playful mock fighting and rough-and-tumble activities). Teachers indicate the frequency with which the child engages in the described behaviors. Items are rated on a five point Likert-type scale, with response choices designed to reflect frequency of occurrence, ranging from '1 = never' to '5 = very often'. Interesting about both the POS and the PPBS in the context of our intervention would be to see whether participation in the intervention would affect children's natural play-behavior in a completely naturalist setting, in contrast to the experimental situation with the attending experimenter in our test situation.

Moreover, a further possible explanation for the lack of more positive findings, due to measurement problems could be that scores could have been affected by influences other than pretend-play. For instance, a possible source of error could be the compensatory equation of the intervention, which often occurs when untreated controls undertake big efforts to compensate the lack of intervention by other means (Köller, 2009). In our study, this could have been an issue, because no-treatment control participants were recruited from the same institutions as children who participated in either the play intervention or the dialogic reading, which were both presented to the participating preschools as programs intended to foster socioemotional competences. Hence, after the intervention was finished preschool teachers from the participating preschools might have promoted children from the no-treatment control condition in socioemotional domains, intentionally or unintentionally, because they did not want them to be disadvantaged. If this compensatory effort has taken place, it would present a very specific pattern in the results, because the compensatory effort would have reflected the teachers' naïve conviction of socioemotional competences. Therefore, the effect would only be present at follow-up, and only on certain measures, because the teachers have those naïve convictions, which are certain ideas of what socioemotional competences are and which they would foster. Presumably, teachers would consider emotion knowledge and prosocial behavior to be at the core of socioemotional competences, but not necessarily self-regulation. Hence, they would train emotion recognition, perspective taking, social behavior, but not reflective emotion regulation in the sense of independent interpersonal regulation. This assumption is supported by the non-findings in our self-regulation task and the positive findings of the

subscale ‘Socioemotional Competence’ (SEC) of the IDS-P (Grob et al., 2013), our distal measure of emotional knowledge, where we only evaluated the second task of the subscale. In the second task, children were consecutively presented with two drawn pictures, each showing a social situation which they had to describe, assessing whether the child has knowledge of emotion causes, which expression signs indicate which emotion (e.g., tears as an indication of sadness), and social display rules of emotion expressions. The progression of mean per group indicate that the intervention was successful with an increasing effect from post- to follow-up testing. The dialogic reading was partly successful, but only from pre- to post-test, and the no-treatment control group only had an effect from post-to follow-up test, indicating that after post-test children of the NCG received some sort of special attention, which resulted in higher IDS-P scores. At the same time there was no effect of either the intervention group or the dialogic reading or the no-treatment control on self-regulation the way it was operationalized in this study. In sum, these results indicate the compensatory effort of teachers in the NCG.

Future directions. One of the issues that remain unsolved is the possibility that the dialogic reading in the treated control group might have already been effective, because children were exposed to the existence themes and the dramatized reading for two months. This assumption is supported by Lindqvist’s (1996) observation that fairytales can give meaning to children’s existence, which fosters development, and Brėdikytė’s (2011) observation that listening to dramatized stories helps children to see the action, “understand the story events and become more emotionally involved” (ibid., p. 93), it creates emotional co-experiencing. “They are ‘getting’ the story through *their eyes, ears, and hearts* and later through their minds when thinking about it.” (ibid., p. 93). Also, listening to the dramatized reading of fairytales is “a complex internal activity.” (El’koninova, 2001a, p. 40), where children become exposed to models of motives of moral behavior, empathizing and emotionally experiencing the story events inwardly, the child “literally feels his way through them with his whole body. That a child emotionally experiences and feels the actions of the main character as the events in the story unfold has been confirmed by recordings of autonomic reactions accompanying listening to a story.” (ibid., p. 40). These effects of listening to the dramatized reading and seeing the enactment of sections and emotions in the reader might be beneficial for children’s development, therefor in future studies an additional treated control group should be added, one that is also ‘active’, but not exposed to dramatized reading. The additional treated control group could do arts and crafts (e.g., cutting, pasting, drawing, etc.), as long as they do something meaningful. In addition, each of the four conditions would need to be recruited from different

institutions. As to avoid mutual influence or compensatory efforts on any part. This way, it would be possible to determine the efficacy of pretend-play distinctly, and if dialogic reading in itself is effective in fostering children's socioemotional competences.

Conclusion. This study has important implications for early education settings and confirms the importance of improving cognitive play skills as a fundamental step of child development. Future studies should revise the intervention manual, consider the above-mentioned limitations, find more suitable measures of the different facets of socioemotional competences and play, and add booster-sessions, which might help maintain gains in play skills. These future studies are vital in providing more evidence for the crucial role of guided pretend-play in preschool settings and providing preschool teachers with a manualized play intervention that they can implement in their daily routines. In conclusion, our pretend-play intervention is a promising approach emphasizing the intentional development of cognitive play skills, the gradual development of pretend-play competences, as a prerequisite for the development of higher forms of play, and pretend-play competences as requisites for socioemotional competences. As such, pretend role-play in early childhood may be a route by which children come to develop enhanced socioemotional competences and gain greater reflective emotion regulation.

8 Outlook

8.1 Changes for Future Implementations

There is no data that help explain why the play intervention had relatively greater effects on socioemotional competence and role-play levels in Study 1 than in Study 2. An explanation could be the above-mentioned dissemination- or the halo-effect. However, it is notable that in both studies, several measures differed across groups at pretest (KIPPS+R and RT in Study 1 and KIPPS+R, IDS-P SEK in Study 2). It remains unclear why the groups differed at pretest on some measures in both studies. The gender and age of children did not differ significantly across condition in either study. In Study 1 the number of children at risk differed significantly across conditions, with significantly more children in the treatment group, due to a selection bias. In Study 2 an effort was made to prevent this selection effect by matching children on this variable as well, with a statistical trend in differences in the number of children at risk remaining. Replications using larger samples, which are more likely to ensure equivalent means on measures at pretest, should help resolve this issue. Despite the slight ambiguity that remains after the rather unsatisfying results of Study 2, there is great potential in the implementation of the pretend-play intervention presented here. However, before future implementations are conducted the following changes in the pretend-play intervention program should be made:

(1) *Revision of content-related structure.* The content-related structure is the procedure by which and when plots are enacted. The procedure of the enactment of plots must be linked closer to the ZPD and the individual development levels of children's role-play abilities. The scaffolding of role-play can only take an effect in children who already possess a minimum of cognitive requirements necessary for pretend-play. Therefore, these competences must be mediated first. Only when all children have these basic role-play abilities at their disposal, the enactment of emotions can be addressed.

Therefore, one adaption of the procedure is conceivable: The structure of the intervention could focus more on the understanding of the plot (*Tool 3: Understanding of plots*), because the cognitive comprehension of a plot is required before emotions can joyfully be enacted. Hence, the cognitive role-play competence is an important prerequisite for elaborate pretend-play. So far, the content-related structure of the intervention proceeded in a plot-wise manner, that is many different plots were enacted, once children had understood the plot, the respective emotions were enacted and after that the PL moved on to the next plot. What this procedure entails is that children had no opportunity to evolve and develop their play within one plot.

Based on results from the TOPS of Study 2 we can conclude that within the context of an intervention such as ours one plot should be upheld for a longer period of time, enough time to embellish the play-actions and unfold the different characters. Once children have understood the respective plot and the motive perspectives of the characters it can be used to slowly establish the enactment of emotions, for instance by frequent change of roles throughout the play, instead of changing the plot frequently. This way the intervention would focus more on the complementarity and differentiation of motives and emotions, enabling children to fully understand the episode from different perspectives. Children need numerous repetitions of the same plot, because only thru repetition become children more and more capable of distancing themselves from their dominant impulses and of regulating their own emotions for the sake of the story plot and the enactment thereof (Bodrova et al., 2013; Carlson & Beck, 2009).

(2) *Editing of manual.* The revised intervention needs to be published in form of a manual, comprised of a comprehensive handbook, including the theoretic background and the empiric evidence, and instruction material that the PL can use to implement each module in the group. The handbook should start with an explanation of the necessity of fostering socioemotional competences and play, it would also entail all necessary information on the theoretic background of the development of socioemotional competences and their link to pretend play, the background information for the intervention mediators, the course of the intervention and the ritualized structure of the individual modules. Additionally, the handbook would give an overview of the empiric evidence of the efficacy of the intervention, explain the implementation of the materials, explain the basic attitude of the person conducting the program, and give an overview of the necessary materials and map out of the setup of different play-locations.

The instruction material should only consist of the play-cards that were introduced in Study 2 (chap. 7.3.4), because the format has proven to be very handy. For each story or fairytale there should be a designated set of color-coded cards. A set of cards would consist of one card with the reading manuscript, including the directions for dramatized reading, and corresponding cards for each playable plot of the story. The cards for each playable plot entail the section of the story that describes the plot and the respective play-actions, supported with a picture of the play scenario. Furthermore, the cards entail information on required materials, what the play-leader's tasks are, and which variations of the plot can be enacted additionally. The section 'Materials' provides a list of all materials needed for the enactment of the respective plot. The section 'Play Leader's Tasks' provides all information for the instructing of the play-actions of the plot, where detailed information is given on how to implement the actions and emotions, which is done by asking standardized questions (provided on each card). In addition

to the story-specific card-sets, the instructional material should entail one general card that lists the welcoming ritual and how the 'fairyland' is generally set up. Instructions would entail information on how to introduce children into the fairyland, how to introduce stories in general, which rules to follow, where the break-area is, and the musical start signal. In addition to handbook and intervention material, the manual should also contain a CD-ROM with exemplary videos of dramatized reading of fairytales and application of planning tools, by realization of the play-cards. The videos would show the implementation of the intervention mediators in its intended form and could be used as training material.

(3) *Revised material assembled in an intervention-set.* Only for the sake of completeness, an overview of the necessary materials is given here again. The pretend-play intervention is material-based, which means that certain equipment is needed for the implementation of the intervention (see chap. 3.6.4), which would need to be professionally assembled in a set and provided together with the manual for preschools. The designated room for conducting the intervention and the instruction material will not be discussed further, but the *fixed* and *flexible* props that are needed. Fixed props are used every time, they turn the designated room into a 'fairyland', which is done by hanging a curtain on the door to mark the entrance into the 'fairyland', seat pads either spread in a circle for the reading or distributed in the room for marking play-locations, several seat pads in a different color to mark a break-area on the side of the room, where children can retreat to if they need to take a break from play, different color chiffon cloths, a xylophone to play an introductory and concluding melody at the beginning and end of the play session, and finally a little bell which can be used as a 'hush-signal' to calm and focus the play-group. Most of the fixed props can be improvised and materials used that are already at hand in the respective kindergarten, such as seat pads, musical instruments, or the bell, but a set of chiffon cloths and the fairyland-curtain would need to be provided in the intervention-set.

The flexible props are used to mark fictive play-locations in the room and to mark the various roles. Different fairytales require different play-locations and roles, therefore the props vary in accordance to the story. What needs to be provided in the intervention set are felted ears for the goats, felted ears for the pigs (attached to rubber bands that children can put on their heads), a big piece of fur for the adult-wolf, and 2-3 smaller pieces of fur for children-wolves. For the other animal-roles chiffon cloths can be used as markers, such as a red chiffon tied around the rooster's head, or a black one for the cat. Furthermore, several big black blankets need to be added to the set, they are multifunctional in building houses and hiding places. Otherwise, the furniture of the preschool can be flexibly used for building the playworld, e.g.,

a children's chair can be used as the goats' front door, a parachute cloth as the pig's house of straw, a tipped over table cased in a big black blanket as the robber's house, etc.

(4) *Structured transfer*. Before the intervention is implemented again, suggestions for a structured transfer should be generated. That implies that the manualized intervention program would need to suggest ways for implementing a structured transfer, including suggestions for after each session and suggestions for after the whole intervention is completed. One suggestion for a structured transfer at the end of each session could consist of a revised ending of each module, where the teacher and the children jointly reflect on the experiences made in the session. Various means can be used for the reflection, for example by creative processing, which means children can draw the pictures and experiences immediately after the play, other creative outlets would be kneading, dancing, playing with hand puppets, crafting (Schieder, 1996). After the experiences are creatively expressed, each one of the group could present his or her art project and it would be discussed in the circle, engaging in introspection through drawing and the "shared elaboration of personal experience" (Ignjatović-Savić, 1995, p. 35).

The structured transfer could also consist of making the interventions materials available for children at all times, while making sure that free time is available, where they can engage in pretend-play. Therefore, the material set would need to be left in the group room, giving the children free access to the intervention materials at all times, while providing enough unstructured free time and room for child-centered play where children choose themes and organize props, assign roles and individually decide how long and how actively they want to participate.

These proposed changes and the manualization would turn our fairytale-based pretend-play intervention into a professional and promising program for fostering socioemotional competences, which could be implemented by preschool teachers. If this program were to be implemented in preschools, it would enable children to learn how to play, because „we believe, however, that despite its momentary suspension of reality and its quality of assimilation, play also enables children to make sense of their world and accommodate to it by the very act of bringing it down to size. Play allows children to experiment with different roles, acquire language skills, and gain control by organizing a game's plan or themes and applying what they learn in play sequences to the everyday cognitive and social demands of life.” (Singer & Singer, 1990, p. 67). At the same time, an implementation in preschools would enable an intervention in everyday, life-relevant contexts and decrease developmental risks across children, because despite that fact that “universal social-emotional curricula are not intensive enough on their own to meet the mental health needs of all children ... they represent a critical building block

to protect all children from previous or future risk exposure.” (Domitrovich, Cortes, & Greenberg, 2007, p. 87).

8.2 Implications for Usage by Preschool Teachers

However, before the revised and professionalized intervention program can be implemented by preschool teachers, the following aspects have to be considered. The pretend-play intervention presented here is intended to be implemented by preschool teachers for fostering socioemotional competences of preschool children. Our pretend-play intervention targets each child at their own developmental level, offering a child-oriented and playful intervention-approach.

Now, in order to ensure the high quality and effectiveness of the program, preschool teachers need to attend a training seminar before implementing the program. The training seminar gives an introduction of the development of socioemotional competences and play, with a focus on the necessity of fostering these competences, which increases compliance and transparency. The training seminar then introduces the ‘Zone of proximal Development (ZPD)’ and the Tools of the Play and explains how play and other competences can be scaffolded. Subsequently, the training seminar gives an overview of the revised intervention manual (chap. 8.1), explains the goals of the program, introduces the material-set with all the props, and demonstrates the dramatized reading and the intervention mediators by video examples.

After visualizing the implementation by video, the group management techniques are introduced, at a point where the necessity is apparent, because participants have an idea of the course of the intervention. Before training in small groups starts, the whole group gets together in a circle and practices intense prototypical expression signs, the seminar facilitator encourages participants to fully immerse into the dramatization, with the goal to reduce inhibitions and embarrassment. Natural and authentic emotion expression is an important aspect of the intervention, which needs to be trained intensively.

After training emotion expressions with the whole group, the dramatized reading of fairytales and the application of the planning tools is trained in small groups and supervised by the seminar facilitator. The participants take turns in being the play leader, the rest of the group pretends to be small children with different attitudes, needs and temperaments, this way the PL can train the emotional expressions during the dramatized reading, while keeping an eye on the group, applying the group management techniques, and will thus realize how important distinct familiarity with the program and comprehensive preparation is.

A special emphasis of the training is the instruction and realization of the guided pretend-role-play. While participants practice in the small groups, the seminar facilitator pays close attention to the correct implementation of the intervention mediators and the use of play-cards.

As a last point at the end of the seminar, ideas for creative expression of intervention experiences are collected, how teachers could get into a conversation with the participating children, processing their experiences and ensuring a transfer into everyday lives. The practical training is the most central feature of the training seminar, only thru that can a standardized and qualitative implementation of the intervention be ensured. Ideally, all pedagogic professionals of a preschool would attend the seminar to capacitate them to support development in everyday lives of the children beyond the limits of the intervention and ensure a transfer of the acquired competences in the long term. Hence, this training would entail the following aspects:

- (1) Theoretic background of socioemotional development and the development of play, with rationale for fostering both.
- (2) 'Zone of proximal Development (ZPD)' and Tools of the Play and explains how play and other competences can be scaffolded.
- (3) Introduction of intervention manual and handling of materials (handbook, play-cards, prop-set).
- (4) Video example of dramatized reading and PL's instructions.
- (5) Group management techniques.
- (6) Practicing emotion expression in collective group.
- (7) Practical training in small groups.
- (8) Ideas for structured transfer.

In sum, this dissertation has performed the important first step of providing a theoretical framework for a universal pretend-play intervention and first evidence on which future research may be based. However, promising intervention strategies and mediators have already been identified and await final manualization. The manualized intervention program combined with the proposed teacher training seminar has the potential to reach a large number of children, to support them in their ZPD, help them learn elaborate forms of play, strengthen their socioemotional competences, and equip them with the necessary skills for the transition from kindergarten to school.

9 Literatur

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10 Appendices

Appendix A: Translated reading material with directions for dramatized reading.

Appendix B: Sequence of the treated control condition in Study 2, with the stories and dialogic questions.

Appendix A

Translated reading material with directions for dramatized reading. The stories are slightly altered and adjusted to the purpose of the intervention.

The Three Little Pigs (Joseph Jacobs)

Directions for dramatized reading	
<i>Yellow, italic font</i>	Describes gestures to be shown throughout the reading
<u>Underlined</u> and intonation added	Specifies which part of the text is to be read with which intonation
Underlined words	Such words are to be read emphasized
– B –	Making a significant break
Spea-king-in-di-vi-dual-syl-la-bels	This spelling indicates: Each syllable is to be spoken separately
Composition of the circle center	2 Chiffon cloths und artificial gems

Today I will read the fairytale of the three little pigs to you. You can make yourselves comfortable, I will read and you can listen! When you look at me closely while I read you will see what happens in the story.

Musical tune with XYLOPHON

Once upon a time, there was an old sow *oinking joyfully* with three little pigs *pointing at each child in the circle*. They were eating and eating *munching noises mjammmjamm, chewing, smacking* and they became so big that the mother had not enough to keep them. The mother got very, very *sad pulled up eyebrows* and said: **– B –** “My dear children, you cannot live here anymore. Each of you has to build their own house. But be careful, *raised pointer* you must build a solid house that protects you from the evil wolf. He likes to eat little pigs.” So she sent them out to seek their fortune *expansive arm gesture*.

(1) The first pig builds a house made of straw

- Enacting pig’s joy -

The first pig that went off met a man with a bundle of straw *pretend-carry an imaginary bundle on the back*, and said to him *squeaky voice*: “Please, man, give me that straw to build me a house. If you give me the straw my house could be finished by the end of the day.”

The man said *deep voice*: “First you give me some of your bristles so that I can make myself a bristle-brush.” Which the pig did *picking imaginary bristles from the back*, and the man gave him the straw and helped the little pig built a house with it. The house had a **– B –** *indicating*

outline of a big door big door in the front and a – **B** – *indicating outline of a small door* small door in the back.

After all the work was done the little pig was very happy that his house was the first to be finished *smiling and clapping hands*. The first pig started a happy song *cheerful sing-song*:

“I have a pretty house of straw,

I am so safe and happy so.

And if the *dark voice, serious look* evil wolf comes by – **B** –,

I will only laugh, heihei!”

– **B** – Well, let’s see what kind of house the second pig will build...

(2) The second pig builds a house made of sticks

- Enacting pig’s pride -

The second pig that went off met a man with a bundle of sticks *pretend-carry an imaginary heavy load on the back, leaning forward*, and said to him *squeaky voice*: “Please, man, give me those sticks to build me a house. If you give me the sticks my house could be finished by tomorrow night.”

The man said *deep voice*: “First you give me some of your bristles so that I can make myself a bristle-brush.” Which the pig did *picking imaginary bristles from the back*, and the man gave him the sticks and helped the second pig built a house with it. The house had a – **B** – *indicating outline of a big door* big door in the front and a – **B** – *indicating outline of a small door* small door in the back.

They worked for two days straight. After all the work was done the little pig looked at his house and was very proud *smiling and folding arms, leaning back appreciatively* and started a happy song *cheerful sing-song*:

“I have a pretty house of sticks,

I am so safe and proud.

And if the *dark voice, serious look* evil wolf comes by – **B** –,

I will only laugh out loud!”

– **B** – Well, let’s see what kind of house the third pig will build...

(3) The third pig builds a house made of sticks

- Enacting pig’s satisfaction-

The third pig that went off met a man who was hauling a cart of he-av-y bricks *pulling an imaginary cart on the back, leaning forward*, and said to him *squeaky voice*: “Please, man, give

me those bricks to build me a house. If you give me the bricks I could build a very, very solid house. If I start right away my house could be finished by next week.”

The man said *deep voice*: “First you give me some of your bristles so that I can make myself a bristle-brush.” Which the pig did *picking imaginary bristles from the back*, and the man gave him the bricks and helped the little pig built a house with it. The house had a – **B** – *quizzical gaze at children, indicating outline of a big door* big door in the front and a – **B** – *indicating outline of a small door* small door in the back.

They worked for one week straight. After all the work was done the little pig looked at his house and was very pleased *smiling and folding arms, satisfied exhale*. The pig started a happy song *cheerful sing-song*:

“I have a pretty house of bricks,

I am so safe and satisfied.

And if the *dark voice, serious look* evil wolf comes by – **B** –,

I will only laugh and smile!”

Now all three pigs lived in their own little houses, they were very happy and pleased *smiling, folding arms, tilted head*.

(4) Wolf blows down the house made of straw

- Wolf’s aggression and pig’s fear -

Slow, dramatic intonation But one day – **B** – *eyes wide open* the wolf came along and knocked on the big door *3 knocks on wooden box* of the house made of straw and shouted *deep, growling voice, furled eyebrows*: “Little nice pig, lovely one. Open the door, it’s easily done”.

– **B** – *pulled up eyebrows, taking a long look at everyone in the circle.*

But the pig answered *high pitched voice, eyes wide open, pulled up shoulders*: „Oh, I’m all alone, sitting in the bin, so I won’t let you come in”.

The wolf said *angry voice, gritted teeth, snarling, furled eyebrows*: “Then I’ll puff, and I’ll huff, and I’ll blow your house in.“

Furled eyebrows, pressed intonation, stomping with hands on the floor And so the wolf huffed, and he puffed, and he puffed, and he huffed, and at last he blew the house down.

But – **B** – *eyes wide open, surprised look* the little pig *mischievous smile* had run out of *indicating little door with hands* the little door to the house that was made of sticks, where it was safe *exhaling deeply, blowing on fingertips, indicating that all went well*.

(5) Wolf blows down the house made of sticks

- Wolf's aggression and pig's fear -

The wolf got very angry and went to house made of sticks and knocked on the big door *3 knocks on wooden box* and shouted *deep, growling voice, furred eyebrows*: “Little nice pig, lovely one. Open the door, it's easily done”.

- B – pulled up eyebrows, taking a long look at everyone in the circle.

But the second pig answered *high pitched voice, eyes wide open, pulled up shoulders*: „Oh, I'm all alone, sitting in the bin, so I won't let you come in”.

The wolf growled *angry voice, gritted teeth, snarling, furred eyebrows*: “Then I'll puff, and I'll huff, and I'll blow your house in.“

Furled eyebrows, pressed intonation, stomping with hands on the floor And so the wolf huffed, and he puffed, and he puffed, and he huffed, and at last he blew the house down.

But *- B – eyes wide open, surprised look* the two little pigs were not there anymore *mischievous smile*, they had run out of *indicating little door with hands* the little door to the house that was made of bricks, where they were safe *exhaling deeply, blowing on fingertips, indicating that all went well, relief*.

(6) Wolf fails at the house made of bricks

- Wolf's aggression and pig's fear -

Full of anger the wolf went to house made of bricks and knocked on the big door *3 knocks on wooden box* and shouted *deep, growling voice, furred eyebrows*: “Little nice pig, lovely one. Open the door, it's easily done”.

- B – pulled up eyebrows, taking a long look at everyone in the circle.

But the third pig answered *high pitched, but calm voice, shaking head*: „I'm not alone, not alone, and I won't let you come in my home”.

The wolf threw a fit growled *angry voice, gritted teeth, snarling, furred eyebrows*: “Then I'll puff, and I'll huff, and I'll blow your house in.“

Furled eyebrows, pressed intonation, stomping with hands on the floor And so the wolf huffed, and he puffed, and he puffed, and he huffed, but *- B –* he could not *shaking head* blow the house down. He got even angrier and bawled out *dark angry voice, gritted teeth, snarling, furred eyebrows*: “Just wait until I catch you. And I will catch you!”

(7) Wolf falls down the chimney

- Wolf's aggression and pig's glee -

Then the wolf was very angry indeed, and climbed the roof to get down the chimney – **B** – *pulled up eyebrows, taking a concerned look at everyone in the circle*. When the three little pigs saw what he was about, the first one asked anxiously *high pitched voice, eyes wide open, pulled up shoulders*: “What are we going to do?”

The second one said *squeaky voice*: “Hey *raised pointer*, I will start a blazing fire in the chimney!” And the third one said *excited, squeaky voice*: “And I will hang a pot full of water in the fire!”

And – **B** – off they went and did it.

Not long after, the fire was blazing, the water was boiling – **B** – just as the wolf was coming down the chimney, *speaking faster* one pig took off the cover of the pot, and in fell the wolf; so the little pig put on the cover again in an instant, and boiled him up. The pigs were so happy and relieved that started to dance happily around the chimney and sang *cheerful sing-song*: “The wolf is dead, the wolf is dead. Over, over is our dread!”

Then, the first and second pig both built houses made of bricks and they all lived happily ever after.

Musical tune with XYLOPHON

Appendix B

Table B: Sequence of the treated control condition in Study 2, with the stories and dialogic questions. In the dramatized reading condition each story was read fully twice in a dramatized fashion, in two consecutive sessions.

Readers attitude		Consistent with attitude of “Dialogic Reading” (≠ educational quizzing)	
Structure of questions		<ul style="list-style-type: none"> ➤ Taking up children’s first reactions to story ➤ Accepting children’s utterances, paraphrasing, and expanding ➤ OR dedicated introductory sentence about a tory-plot, followed by “open questions” (≠ yes/no answers) <ul style="list-style-type: none"> ○ Who did what? ○ Why did he or she do that? (intention) ○ How did he or she feel about that? ○ In case there is an interaction partner: What did he or she want? What did he or she do? How did he or she feel? ○ Gradually trying to include the children who are quite and withdrawn 	
Extend of dialog		<ul style="list-style-type: none"> • Always starting with an introductory sentence about last scene of story, which is the one still most present. 	
Please note:		The reader’s reaction to children’s comments and answers is always a neutral “hmmm” – under no circumstances repeated enactment of emotion!!!!	
Module Land of the Dwarfs (Part I)			
1	<i>Potential questions after the first read</i>	Plot 6	Repeating gesture from the oath, saying: “Well that is a big secret, don’t you think?” <ul style="list-style-type: none"> • Why did the dwarfs hide the gems? → dragon is not supposed to find them • What does the dragon want? • How do the dwarfs feel about that?
2	<i>Before the second read</i>	What did children remember?	Last time we read the story about Fauli, who went into the mountains with his friends. <ul style="list-style-type: none"> • What happened there? → children can recall what they remember • Motivating sentence: “I also cannot quite remember.... I think it’s best if we read the story again.”
		Plot 5	Humming the dwarf-song and saying: “The song helped the dwarfs to find their courage, remember?” <ul style="list-style-type: none"> • What did the dwarfs need all that courage for? → dark cave

	<p><i>Potential questions after the second read</i></p>		<ul style="list-style-type: none"> • And how did they feel when they were standing in front of that dark cave? • And how did they gather their courage? → singing together
Plot 4		<p>“When they reached the canyon, did they also sing?”</p> <ul style="list-style-type: none"> • What did they do at the canyon? • Why did they want to cross the canyon? • And the little dwarf, did he also manage to cross the canyon? • How did the little one feel in doing so? 	
Plot 3		<p>“Remember, the little dwarf managed to convince Fauli to join them...”</p> <ul style="list-style-type: none"> • Why did the little one want Fauli to tell them the way? • What did the little one do? → plead • And how did that make Fauli feel? 	
Plot 1		<p>“Luckily Fauli got up in the end, at first he slept in, remember?” positioning Fauli-cloth on floor</p> <ul style="list-style-type: none"> • Did the dwarfs want to go into the mountains without Fauli? → no • What did the others do? • And how did they feel in doing so? • How did Fauli feel about that? 	
Plot 2		<p>“The dwarfs were very angry...”</p> <ul style="list-style-type: none"> • What were they so angry about? → Fauli didn’t want to tell the way • And what did the dwarfs do then? → grumble about Fauli • How did that make Fauli feel? 	
<p>Module Land of the Dwarfs (Part II)</p>			
3	<p><i>Potential questions after the first read</i></p>	Plot 6	<p>“The dwarfs really rushed there on the lake.” (introduction)</p> <ul style="list-style-type: none"> • Why did they do that? → dragon → danger → fear • How did they feel on the lake? What were they scared of? • How did the dragon feel about that? <p>“But the dwarfs succeeded and took the gems home.”</p> <ul style="list-style-type: none"> • Why did they want the gems in their village? • How did they feel?

			<ul style="list-style-type: none"> • And how did the king feel when he visited the village and saw all the gems shining ion all different colors?
4	<i>Before the second read</i>	What did children remember?	<p>“Last time we read the story about Fauli and the stolen treasure.”</p> <ul style="list-style-type: none"> • What happened in the story? → children can recall what they remember • Motivating sentence: “I also cannot quite remember.... I think it’s best if we read the story again.”
	<i>Potential questions after the second read</i>	Plot 5	<p>“That was a great plan that Fauli had there. How he wanted to steal back the gems from the evil dragon. Do you remember how he wanted to do that?” → tickle his nose</p> <ul style="list-style-type: none"> • Why do you think he wanted to do it that way? • How did he feel? • How did the other dwarfs feel? • And the dragon? Did he notice that the gems were gone?
		Plot 3	<p>“Oh boy, I completely forgot. What happened again when the dwarfs wanted to collect the gems from the hiding place? Did the dragon come?” → no, gems were gone</p> <ul style="list-style-type: none"> • How did the dwarfs feel when the gems were gone? → sad, angry • What did they want to do with the gems? → light for the king • What did they do then?
		Plot 4	<p>“And how did the dwarfs realize where the gems were? Who had stolen them?”</p> <ul style="list-style-type: none"> • How did the feel about that?
Module The Wolf and the Seven Goats			
5	<i>Potential questions after the first read</i>	Plot 8	<p>“Why was the wolf so thirsty after he woke up from his nap?” (boulder rocks)</p> <ul style="list-style-type: none"> • How did the rocks get in the wolf’s stomach? And why? • How did the wolf feel about that? • What did the goats do? Where did they hide? • How did the goats feel when the wolf fell into the well?
6	<i>Potential questions after the second read</i>	What did children remember?	<p>“Last time we read the story about the wolf and the seven goats.”</p> <ul style="list-style-type: none"> • What happened in the story? → children can recall what they remember • Motivating sentence: “I also cannot quite remember.... I think it’s best if we read the story again.”
	<i>After the second read</i>	Plot 3	<p>“The wolf really deceived the goats when he knocked on their door with the white paw and the silver voice. How did he do that?”</p> <ul style="list-style-type: none"> • What did the goats think? And what did they do then? (Mother → opened the door)

			<ul style="list-style-type: none"> • How did the goats feel, when the wolf suddenly appeared? (fear) • And what did they do?
		Plot 4	<p>“The goats had lots of different hiding places, where were they?”</p> <ul style="list-style-type: none"> • How did the wolf react? And how did he feel about it? (ate the goats → happy → nap)
		Plot 5	<p>“The mother was really frightened when she came home. Why?”</p> <ul style="list-style-type: none"> • What did she do? How did she feel? (searched in vain → sad) • Who did she find? (little goat) • How did the little goat feel, when the mother found him? (relieved) • What did the little goat do then? (told mother everything)
		Plot 6	<p>The little goat told the mother that the wolf had eaten all the other goats.</p> <ul style="list-style-type: none"> • How did she react? (Cried and searched for wolf) • What did the mother do when she found the wolf? (cut open stomach) • How was that, when she had all her little goats back? (happy)
		Plot 7	<p>The mother and the seven goats tricked the wolf. How did they do that?</p>
Module The Three Little Pigs			
7	<i>Potential questions after the first read</i>		<p>“The little pigs played quite a trick on the wolf.”</p> <ul style="list-style-type: none"> • What did they do when they heard the wolf on the roof? • And did it work out? • How did the wolf feel? • And how did the pigs feel? (relieved, happy, proud)
8	<i>Before the second read</i>		<p>“Last time we read the story about the three little pigs.”</p> <ul style="list-style-type: none"> • What happened in the story? → children can recall what they remember • Motivating sentence: “I also cannot quite remember.... I think it’s best if we read the story again.” OR “You remembered so much already, now let’s read the rest...”
	<i>Potential questions after the second read</i>	Plot 1 – 3	<p>“The little pigs built three houses.”</p> <ul style="list-style-type: none"> • What was the first house made of? (Straw) <ul style="list-style-type: none"> ○ Is straw as solid as the mother had recommended? Why did the pig use it? • What was the second house made of? (Sticks) <ul style="list-style-type: none"> ○ Are sticks as solid as the mother had recommended? Why did the pig use it?

			<ul style="list-style-type: none"> • What was the third house made of? (Bricks) <ul style="list-style-type: none"> ○ Are bricks as solid as the mother had recommended?
		Plot 4	<p>“What did the wolf do when he arrived at the first house made of straw? (→ he blew it in)</p> <ul style="list-style-type: none"> • Oh boy, I’m sure he ate the little pig, right? (no → house made of sticks) • And he wolf was fine with it, right? How do you think he felt? • And how did the little pig feel?
		Plot 5	<p>“What did the wolf do when he arrived at the second house made of sticks? (→ he blew it in)</p> <ul style="list-style-type: none"> • And did he catch the pig? (no → house made of bricks) • How do you think the wolf felt? • And how did the little pigs feel?
		Plot 6	<p>“And what did the wolf do when he arrived at the third house made of bricks? (→ he couldn’t blow it in)</p> <ul style="list-style-type: none"> • Why couldn’t he blow it in? • How do you think the wolf felt? • And how did the little pigs in the house feel?
		Plot 7	<p>“The wolf couldn’t blow in the house made of bricks, but he still wanted to eat the pigs. So what did he try?” (wanted to go thru chimney)</p> <ul style="list-style-type: none"> • The pigs realized what he was up to. What did they do? (Fire → pot → lid on pot) • And when the pigs had finessed the wolf, how did they feel? • What did they do afterwards? (each one built a house made of bricks)
Module The Town Musicians of Bremen			
9	<i>Potential questions after the first read</i>		<p>“Well, the town musicians of Bremen really scared off the robber that returned to the house. How did they do that?</p> <ul style="list-style-type: none"> • What did the cat do? • What did the dog do? • What did the donkey do? • What did the rooster do? • And the robber, what did he think was happening? • How did that make the robber feel? <ul style="list-style-type: none"> ○ So what did he do?

			<ul style="list-style-type: none"> ○ Do you think he returned a second time? ○ Why not?
10	<i>Before the second read</i>	What did children remember?	<p>“Last time we read the story about the town musicians of Bremen.”</p> <ul style="list-style-type: none"> ● What happened in the story? → children can recall what they remember ● Motivating sentence: “I also cannot quite remember.... I think it’s best if we read the story again.” OR “You remembered so much already, now let’s read the rest...”
	<i>Potential questions after the second read</i>	Plot 1	<p>“In the beginning, the donkey collected all the other animals. Where did he find them?”</p> <ul style="list-style-type: none"> ● How were the animals feeling, when the donkey found them? (sad) ● Why were they so sad and glumy? (homeless) ● And the donkey? How did he comfort them? (took them all along) ● How did the animals feel about that? (relieved, new courage)
		Plot 2	<p>“The animals had to walk very far to get to Bremen. Did they make it in one day?” (no)</p> <ul style="list-style-type: none"> ● In the evening they were tired and exhausted. Where did they want to sleep? (in the forest) ● Where did the rooster want to sleep? (in the treetop) ● And what did he discover? (a light in the distance) ● Regardless of the light, the animals still slept in the forest, right? (no) ● What did they do? (walk towards the light)
		Plot 3	<p>“What did the animals discover when they reached the light?” (robbers house)</p> <ul style="list-style-type: none"> ● What did they see when they looked thru the window? (robbers & food) ● What did the animals think when they saw that? (hungry → they also want yummy food)
		Plot 4	<p>“So the animals knocked on the door and the robbers invited them to dinner, right?” (no)</p> <ul style="list-style-type: none"> ● What was the animals plan? (scare robbers off) ● Did the plan work? And what did the robbers think? ● How did the robbers feel? (scared) ● What did the animals do (entered house & ate all the food) ● How did that make them feel? (happy)
		Plot 5	<p>“The boss of the robbers sent one back, why?” (to check on the house)</p> <ul style="list-style-type: none"> ● What did the robber try to do when he entered the house? (light a fire) ● The red dots that the robber saw, was that the charcoal in the stove? (no, it was cat)

			<ul style="list-style-type: none"> • What did the cat do? ... And the robber? (scared him off → robber left house) • What happened when the robber exited the back door? (dog bit his leg) • And what did the donkey do when the robber passed him? (kicked him) • All the noise woke up the rooster. What did he cry out? • What did the robber make of all that? (thought cat was a witch, dog a knife, donkey a monster, and rooster a guard) • And the robber was so scared that he peed his pants and ran back to his boss. And what did he tell him? • So the robber went back to his boss and told him that the house was fine and that they could all return? (no, robbers were scared and never returned)
Module The Hare and the Hedgehog			
11	<i>Potential questions after the first read</i>		<p>“The hedgehog really tricked the hare, hm?”</p> <ul style="list-style-type: none"> • Did the hare still tease the hedgehog? (no) • Why not? (hedgehog outsmarted the hare) • How did the hedgehog feel in the end? (happy)
12	<i>Before the second read</i>	What did children remember?	<p>“Last time we read the story about the hare and the hedgehog.”</p> <ul style="list-style-type: none"> • What happened in the story? → children can recall what they remember • Motivating sentence: “I also cannot quite remember.... I think it’s best if we read the story again.” OR “You remembered so much already, now let’s read the rest...”
	<i>Potential questions after the second read</i>	Plot 2	<p>“Why did the hedgehog challenge the hare to the race?” (hare teased hedgehogs crooked legs)</p> <ul style="list-style-type: none"> • Was the hare nice to the hedgehog? (no, he was arrogant and mean) • What did the hare think who would win the race? (was convinced he would win) • Why did the hare laugh at the hedgehog? (he thought the hedgehog would not stand a chance) • How did that make the hedgehog feel? (sad)
		Plot 3	<p>“The hedgehog went home and told his wife about the hare.”</p> <ul style="list-style-type: none"> • Was she happy about the race? Why not? • But the hedgehog had a plan, do you remember? • What was the hedgehog’s wife supposed to do? • But she didn’t follow the plan, right?

		Plot 4	<p>“When the race started the hedgehog always won, because he was suddenly much faster than the hare, right?” (no, hedgehog’s wife at the end of field)</p> <ul style="list-style-type: none"> • Did the hare not notice? (no) • How did the hare feel? (very angry) • And what do you think how the hedgehog felt? (happy that his plan worked)
		Plot 5	<p>“And it all ends well. The hare learned that it is not okay to laugh at others.”</p> <ul style="list-style-type: none"> • How did the hare feel? • And did all the other hares also learn from it? (yes, no more races) • Is it allowed to mock others? Why not? (no, it is mean, it hurts)
Module The Spirit in the Bottle			
13	<i>Potential questions after the first read</i>		<p>“The father was quite surprised when he saw all that money, hm.”</p> <ul style="list-style-type: none"> • Where did the boy get all the money? (sold silver axe) • What did he do afterwards? (ran home to give father money) • How did the father feel? (happy) • What did the boy do with the magic cloth? (became doctor)
14	<i>Before the second read</i>	What did children remember?	<p>“Last time we read the story about the spirit in the bottle.”</p> <ul style="list-style-type: none"> • What happened in the story? → children can recall what they remember • Motivating sentence: “I also cannot quite remember.... I think it’s best if we read the story again.” OR “You remembered so much already, now let’s read the rest...”
	<i>Potential questions after the second read</i>	Plot 1	<p>“Why did the boy have to help his father in the forest?” (no money)</p> <ul style="list-style-type: none"> • Did the boy mind? (no) • Did the father have an extra axe for the boy? ... Where did they get one? (borrowed from neighbor)
		Plot 2	<p>“The boy and his father cut down big trees with the axe. That is very demanding. I’m sure they boy was very tired at noon and took a break with his father?” (no)</p> <ul style="list-style-type: none"> • What did he do instead? (search for bird nests) • What did he find? (heard a voice)
		Plot 3	<p>“Where did the voice come from?” (bottle under tree)</p> <ul style="list-style-type: none"> • What did the voice want? (be let out) • But the boy already knew that it was an evil spirit and didn’t open the bottle, right? (no, opened bottle)

		<ul style="list-style-type: none"> • Oh boy, what happened next? (evil spirit came out) • What did the spirit want to do with the boy? (cut off head) • How did that make the boy feel? Was he scared?
	Plot 4	<p>How did the boy save himself? (tricked the spirit)</p> <ul style="list-style-type: none"> • How did he do that? (lured him back into bottle) • How did that make the spirit feel? Was he happy to be back in the bottle?
	Plot 5	<p>“Then the boy went back to his father and left the spirit in the bottle, right? 8no)</p> <ul style="list-style-type: none"> • What did the spirit want? (for boy to come back and release him) • But the boy didn’t fall for it again, did he? (he did) • But why? (spirit promised reward) • Did the boy open the bottle again? (yes)
	Plot 6	<p>“But the spirit did not keep his promise, did he? (he did)</p> <ul style="list-style-type: none"> • What did the boy receive? (magic cloth) • What was the magic cloth good for? (turned metal into silver, healed wounds) • How did the boy feel about it? (happy)
	Plot 7	<p>“And the boy told his father everything right away?” (no)</p> <ul style="list-style-type: none"> • Why did the axe brake? • How did the father feel about the broken axe that belonged to the neighbor? (sad and devastated)
	Plot 8	<p>“And in the end, was the father still sad?” (no)</p> <p>Why not? (boy told him everything and gave him all the money)</p> <p>Did the father and the boy still have lots of sorrows? (no, lived happily ever after)</p>
Module Land of the Dwarfs (Part I)		
15	<i>Ending</i>	After story was read, each child received a gem as a reminder of the fairyland.

CURRICULUM VITAE

Eigenständigkeitserklärung

Ich versichere, dass ich die vorliegende Dissertation selbstständig verfasst und keine anderen als die angegebenen Quellen und Hilfsmittel benutzt habe. Die Stellen, die andern Werken im Wortlaut oder dem Sinn nach entnommen sind, sind durch Quellenangaben im Text deutlich gemacht. Die Arbeit hat in gleicher oder ähnlicher Form noch keiner anderen Prüfungsbehörde vorgelegen.

Münster, den 2017



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Sophia Hermann