International Journal of Educational Research Open 3 (2022) 100195

Contents lists available at ScienceDirect

International Journal of Educational Research Open

journal homepage: www.elsevier.com/locate/ijedro

Measuring interaction quality between parents and professionals and its relation to preschool characteristics

Theresia Gabriele Hummel [a,*], Franziska Cohen [b], Juliane Gessulat [c], Yvonne Anders [a]

[a] Department of Early Childhood Education, University of Bamberg, Luisenstraße 5, Bamberg 96045, Germany
[b] Department for Early Childhood Education, University of Education Freiburg, Kunzenweg 21, Freiburg 79117, Germany
[c] Department for Early Childhood Education, Freie Universität Berlin, Habelschwerdter Allee 45, Berlin 14195, Germany

ARTICLE INFO

Keywords:
Observational tool
Early childhood education
Parent-professional partnership
Interaction quality
Communication

ABSTRACT

Due to a lack of adequate measures, little is known about the quality of parent-preschool communication. The present study presents a new observational tool for measuring interaction quality between parents and professionals during child drop-off. The sample consists of 912 parent-professional dyads in 107 preschools. Results from confirmatory factor analyses provided evidence of construct validity, and results for reliability were good. Regression analyses indicate that professional-child ratio, the qualification of professionals, and the way pedagogical work is organised in the preschool are related to the interaction quality between parents and professionals. The implications of our findings will be discussed in the light of the theoretical background as well as the conceptual framework of the instrument.

1. Introduction

Previous research has shown that supportive parent-professional partnerships (PPP)[1] are beneficial to child development (Galindo & Sheldon, 2012; Mautone et al., 2015; Serpell & Mashburn, 2012). Summers et al. (2005) define the partnership between parents and professionals as a 'mutually supportive interaction between families and professionals focused on meeting the needs of children and families' (p. 66). Consequently, positive and ongoing interactions between parents and professionals are fundamental elements of effective PPP, setting the stage for sharing values and expectations, building trust, and involving parents in their child's development (Intxausti et al., 2013; Rimm-Kaufman & Pianta, 2005). While there is little doubt about the potential benefits of positive interaction processes in PPP, limited knowledge exists about their nature and predictors, especially at the dyadic level. Most existing studies assess, via questionnaire, the frequency of contact, rather than the characteristics of communication[2] (e.g., Coelho et al., 2019; Lin et al., 2019; Murray et al., 2015). The present study makes a unique contribution to this body of research in describing the development and validation of a new observational approach for measuring the interaction quality between parents and professionals during child drop-off. In the second part, the study also investigates what preschool characteristics are related to the interaction quality between parents and professionals.

2. Communication as a crucial aspect of PPP

According to the framework for healthy relationships between families and (pre)schools (Clarke et al., 2010), we assume that communication is the primary method by which professionals create and support PPP. Therefore, effective communication leads to higher quality relationships between professionals and parents. To foster effective

* Corresponding author.
E-mail addresses: theresia.hummel@uni-bamberg.de (T.G. Hummel), franziska.cohen@ph-freiburg.de (F. Cohen), julianegessulat@gmail.com (J. Gessulat), yvonne.anders@uni-bamberg.de (Y. Anders).

[1] The concept of PPP is dealt with in the literature using various terms, such as family-preschool partnerships or parent-teacher relationship. We use the term PPP throughout, as our empirical focus is on the dyad between parents and professionals, not on the organisational level. However, it can also be extended to other family members and pedagogical staff.

[2] In the literature review, we mainly use the term *communication*, as previous research has focused especially on the exchange of information between preschools and parents. Considering the bidirectional nature of communication during drop-off and pick-up times, we use the term *interaction* with regard to our newly developed instrument. However, only the interaction behaviour of the professionals is assessed, as it is their professional task to initiate high-quality interactions with the parents.

https://doi.org/10.1016/j.ijedro.2022.100195
Received 14 April 2022; Received in revised form 30 July 2022; Accepted 2 August 2022
Available online 11 August 2022

communication, professionals may focus on increasing the quantity and quality of their communication with parents over time to develop and maintain a strong connection with each other. In line with these theoretical assumptions, existing research literature has demonstrated that positive communication on a regular basis plays a key role in involving parents in their child's education (e.g., Intxausti et al., 2013) as well as in building trust between parents and professionals (e.g., Adams & Christenson, 2000). Sharing information is seen as critical in creating continuity for children between the home and preschool setting, and thus in providing high-quality learning environments (e.g., Clarke et al., 2014; Giovacco-Johnson, 2009). Information regarding a child's experiences provided by parents for professionals has the potential to help professionals to better understand the children's behaviour and, in this way, to develop and maintain positive relationships with the children (Zellman & Perlman, 2006). Information about the child's experiences provided by professionals for parents may strengthen parents' abilities to provide a sensitive and stimulating home environment, reinforcing what children have learned in preschool (Owen et al., 2000).

Even though there are numerous communication practices in preschools, existing research literature considers especially the meeting points during transition times to be highly relevant, for the following reasons: First, in contrast to school contexts, they offer parents and professionals the opportunity to share current and individual information on a daily basis (e.g., Murray et al., 2015). Details can be collected and an impression can develop as to how the day in the family began (e.g., Swartz & Easterbrooks, 2014; Weiss et al., 2014). Second, regardless of whether there is a real conversation between parents and professionals, a welcoming atmosphere can be established by greeting the parent during child drop-off by name and by establishing eye contact (Dahlberg & Moss, 2004). Third, these meeting points offer the opportunity to reach almost all parents (Grady et al., 2012), even those who do not appear for formal activities for various reasons (e.g., lack of time, language thresholds). Fourth, in these situations, parents can observe how the professionals interact with their child, giving them an idea of what occurs in the preschool setting when they are not present, and making them feel comfortable with using childcare (Coelho et al., 2019; Shpancer et al., 2002). Finally, the meeting points during transition times offer the opportunity to establish a trustful relationship between parents and professionals, which can form a good basis for any challenging conflict situations that may arise in future (Hummel et al., 2022; McGrath, 2007; Rolfe & Armstrong, 2010).

3. Measuring communication between parents and professionals

Mostly, aspects of communication have been assessed as one dimension of the broader construct of PPP. Many of these global measures lack psychometric support, such as evidence of reliability or validity (e.g., Quality of Parent-Teacher Relationship Scale in the Kindergarten; Penderi, 2012; the Home-School Relationships Questionnaire; Barbarin, 2000); or studies combined items from already established measurements without statistical or content support (e.g., Rimm-Kaufman et al., 2003; Serpell & Mashburn, 2012). Additionally, the majority of established measurements focus on the frequency of parent-professional contacts, rather than qualitative characteristics of interaction processes. This is also the case with studies that used or developed scales exclusively for assessing professional-parent communication (e.g., Coelho et al., 2019; Lin et al., 2019; Murray et al., 2015). For example, Coelho et al. (2019), who investigated parent-professional communication during drop-off and pick-up times, used an adapted version of the Daycare Experience Questionnaire (DEQ; Skouteris & Dissanayake, 2001; translation by Cadima et al., 2012), which only considered the frequency of information exchange on specific topics (e.g., the child's sleeping and eating habits) on a 4-point scale from 'rarely' (1) to 'daily' (4). Another limitation of existing studies is that data is mainly based on questionnaires and self-reports, even though observational data is widely considered to be much more objective (e.g., Cryer et al., 2002; Mocan, 2007). A number of studies focusing on interactions between parents and professionals during drop-off and pick-up times (Endsley & Minish, 1991; Maras et al., 2018; Perlman & Fletcher, 2012) have used observational approaches, but the design of the measurements only allows for results to be reported at a descriptive level. In the study by Perlman and Fletcher (2012) for example, a short list of behaviours was coded as part of a series of 20 second snapshots. Only the extent to which a greeting took place (no greeting, greeting with or without name) and what information was exchanged (e.g., child-related information, personal information, program-related information) was taken into account. In contrast, Maras and colleagues (2018) used five-point scales to measure the quality of co-caring relationships between teachers and mothers; however, these focused on emotional aspects, such as anger or warmth, and not specific communication behaviours. Consequently, further research is still needed using measures that offer insight into processual details, such as live observation at the dyadic level.

4. Theoretical assumptions: the characteristics and structure of interaction quality during drop-off situations

Reviewing the literature on parent-professional communication shows that there is a lack of concepts developed specifically and originally for early childhood education. With regard to the communicative skills of preschool professionals, reference is mostly made to principles of conversation analysis (e.g., Berc et al., 2014; Cheatham & Ostrosky, 2009; McNaughton et al., 2008), in particular to the key elements of the person-centred conversation approach (Rogers, 1973). According to this, appreciation, empathy, and congruence promote an open exchange of conversation (e.g., Tausch & Tausch, 1990). Appreciation for parents becomes evident when professionals actively listen and try to understand parents' concerns by asking questions. Parents experience empathy when professionals use conversation techniques such as paraphrasing to verbalise the parents' feelings and thoughts. Appreciation and empathy can only reach parents as a message if the professionals' behaviour is congruent, i.e. if the professionals' statements and behaviour match (e.g., Behr & Aich, 2017). According to the communication researchers Watzlawick et al., and Jackson (2017), both technical conversation skills and nonverbal behaviour are factors that contribute to the success of interaction processes. For example, a negative attitude – or even ignoring the other person – sends a strong message of lack of interest. After reviewing the literature of communication research, the following characteristics of verbal and nonverbal behaviour have proven to be effective; as such, we included them in the development of scales: the use of active listening, making empathetic comments, asking appropriate questions, paraphrasing, summarising, posture, eye contact, and facial expressions (Gordon, 2003; Günther, 2003; O'Shea, 2000).

Also drawing on existing research in conversational psychology, this study assumes a three-dimensional structure of parent-professional interactions during drop-off situations, consisting of the three sequences of conversation opening, topic development, and conversation closing (Coulthard & Condlin, 2014). First, conversations are usually opened by greetings, general questions regarding well-being, or nonverbal behaviour such as a smile. Afterwards, topic development takes place within a verbal exchange: Topic development is an extremely complex multi-layered phenomenon that can be discussed within a single turn or a series of turns (Bergmann, 1990). Finally, the conversation usually concludes with a summary followed by closing rituals (e.g., saying goodbye, handshake). In theory, the opening of the conversation is very important for the course of the conversation, as a warm welcome can be decisive in determining whether or not a conversation takes place (Coulthard & Condlin, 2014). While most of the conversations begin with a conversational opening, conversely, not every greeting must lead to the development of a topic. Previous research on parent-professional interactions during drop-off and pick-up times has already shown that

communication is quite limited and a conversational opening is not always followed by a conversation (e.g., Endsley & Minish, 1991; Perlman & Fletcher, 2012; Winkelstein, 1981). In line with the person-centred conversation approach (Rogers, 1973), the occurrence of a conversation should also not be evaluated as a quality indicator for the parent-professional interactions during child drop-off. It is important to remember that not all parents are always interested in a conversation when handing over their children. A lack of time resources or no acute need to talk can be decisive factors for parental disinterest. Consequently, high quality interaction consists of professionals focusing on the parents' needs, creating an atmosphere of warmth, sympathy, and acceptance. At the same time, communication must be geared to the parents' need to talk and should not be initiated regardless.

5. Relations between preschool characteristics and aspects of PPP

The structural characteristics of preschools are thought to form the foundations for the kinds of processes that can take place within preschools (Pianta et al., 2005). Whereas the evidence on relations between structural features and children's experiences has been well-established (see for an overview Slot, 2018), it remains unclear how these characteristics relate to parent-staff interactions. A few studies suggest that professionals' qualifications are associated with aspects of PPP practices (e.g., Castro et al., 2004; Cohen & Anders, 2019). For example, Cohen and Anders (2019) found positive relations between professionals' qualifications and the intensity of their partnership activities (e.g., parent-teacher conferences). However, findings are mixed: With regard to parent-professional communication, qualifications are yet to have been proved to be crucial (Perlman & Fletcher, 2012; Swartz & Easterbrooks, 2014). In the present study, we consider the professionals' qualifications at preschool level based on recent findings from Germany (Barenthien et al., 2019; Resa et al., 2018); these studies note the importance of professional exchange within the team for quality in preschool settings. Consequently, we assume that a higher percentage of professionals with a university degree within the team is related to the frequency and intensity of professional exchange, and thus predict the quality of parent-professional communication.

Moreover, some research has shown that lower professional-child ratios in preschool settings are related to more positive and frequent parent-professional communication (e.g., Early et al., 2007; Rao et al., 2003; Zellman & Perlman, 2006). The only study to date known to us which examines interactions during drop-off and pick-up times, is the observational study by Perlman and Fletcher (2012), which could not prove the importance of the professional-child ratio. Thus, further research is needed to investigate this relation. The age of children could also be a possible predictor of the quality of parent-professional communication. Based on previous research that has shown that professionals and parents communicate more frequently about infants than pre-schoolers (e.g., Endsley & Minish, 1991; Rimm-Kaufman & Pianta, 1999), we assume that younger children are less able to directly communicate verbally about their needs and experiences, resulting in their parents and professionals engaging in more communication to compensate for this. Aspects of parent-professional communication could also depend on the preschools' ethnic composition: This is based on the hypothesis that culture may predict families' child-rearing values, leading to a gap between the values and interests of parents and professionals. In the German study by Neumann (2012), the ratio of children with a non-German mother tongue in the classroom is associated with a stronger perception on the part of professionals of perceived challenges for PPP. Moreover, language barriers may manipulate communication processes in PPP; indeed, the negative relation between diversity of ethnicity and frequency of parent-professional communication is proven and well established (e.g., Guo, 2002; Kim, 2009; Van Keulen & Van Beurden, 2002). However, more research is needed on aspects of quality.

Finally, the present study considers the way pedagogical work is organised in the preschool. In Germany, pedagogical work in preschools is generally organised in two ways: Either two to three professionals each work in teams with groups of children in separate classrooms, or all of a preschool's professionals work with all children and no classrooms exist (open plan work). The latter approach implies greater age heterogeneity, challenging spatial structures, and restricts the availability of the head professional during drop-off and pick-up times. In order to be able to better organise drop-off and pick-up times, in most preschools with open plan work concepts, children are first brought to one place by their parents, after which the children may choose in which room they wish to spend time. Consequently, at this drop-off meeting point, only one or two professionals are present and not all of the head professionals – who are most familiar with and knowledgeable regarding the children – are available there; whether parents ascribe sufficient credibility to other professionals is unclear (Shimoni, 1992).

6. Research objectives

In the present paper, we aim – using a new observational tool – to contribute to a better understanding of parent-preschool interactions. First, we describe the process of the scale's development and investigate the reliability and construct validity of the measurement. Second, we investigate whether the quality of interactions between parents and professionals is related to structural characteristics of the preschool settings.

7. Method

7.1. Design and sample

Data collection for the present study took place between October 2018 and March 2019. All data were obtained as part of the evaluation of a German governmental preschool initiative that was set up to support preschools in implementing language education and effective PPP. The sample consisted of 186 professionals and 935 parents recruited from 107 preschools. In order to guarantee heterogeneity, the sample was drawn from different regions in eight federal states of Germany (Bavaria, Baden-Wuerttemberg, Berlin, Brandenburg, North Rhine-Westphalia, Hamburg, Saxony, Hesse). First, the research team informed the preschool managers about the observations with a written letter. Second, the preschool managers were asked to inform their teams, who, in turn, informed the parents about the observation.

In each preschool, a maximum of two professionals were randomly selected by observing only the first two professionals who interacted with parents over the entire morning transition. The participating professionals were mostly female (89%) and their mean age was 41 years. With respect to professional qualifications, we find 8% with a university degree. On average, professionals had 14 years of work experience in preschool settings (SD = 11 years) and had attended two to three days of partnership-related professional development activities in the last 12 months (SD = 6.73 months). Due to data security and ethical reason, data about parents' demographic characteristics could not be collected. Informed consents were obtained from the professionals. The parents were informed through a written information notice, as no identifying data were collected, and parents were observed within their daily transition routines. The information material was written in various languages (German, English, Russian, Turkish, Spanish, and Arabic) in order to ensure that all families were adequately informed about the observation.

7.2. Instruments

7.2.1. Development of the observational scale

In the process of scale development, different items and response formats were probed and subsequently improved by pilot testing. Moreover, pilot studies (N = 16 preschools; N = 77 drop-off situations) were used to examine inter-rater reliability, and ensure that live observation is sufficient and feasible for observers. The final observation instrument consists of 13 items on three theoretical dimensions: professionals' willingness to communicate and interact (4 items: posture, eye contact, facial expression, welcoming), communication strategies (5 items: posture, eye contact, speaker changes and conversation parts, parent-centred conversation, conclusion of conversation), and the farewell (4 items: posture, eye contact, facial expression, farewell). Response options for items range from 'inadequate quality' (1) to 'excellent quality' (4). Each item is based on indicators, which are descriptions of the quality level (for information on full item examples see Fig. 1). According to the theoretical background (see chapter 4), we do not evaluate the occurrence of a conversation as a quality indicator for the parent-professional interactions during child drop-off. Thus, in each drop-off situation, the two subscales willingness to communicate and interact and farewell are rated. In both subscales, the professional can achieve the highest score, even if the parents do not signal any interest in a conversation (e.g., due to lack of time). In those cases where communication apart from greetings takes place, the subscale communication strategies is also rated.

7.2.2. Structural characteristics of drop-off situations

Additionally, the instrument includes two short questionnaires for assessing contextual information for (1) each drop-off situation (e.g., topic and duration of communication) and for (2) preschool characteristics regarding child drop-off (e.g., responsibilities during child drop-off).

7.2.3. Structural characteristics of preschools

An online questionnaire completed by each preschool's manager was used to survey the preschools' characteristics. Based on the literature review, we include the following characteristics that may relate to the interaction quality between parents and professionals: percentage of professionals with a university degree within the team (team includes all staff members excluding the preschool manager), percentage of children mainly not speaking German at home, percentage of children under three years old (at time of the survey), organisation of pedagogical work (classroom-based vs. open plan work), and size of the preschool (number of children registered with the setting at time of the survey). In addition, we include the professional-child ratio. Therefore, the observers counted the number of children and professionals present in each drop-off situation. To determine the professional-child ratio, the number of children was divided by the number of professionals. All descriptives are depicted in Table 1.

7.3. Procedure

In each preschool, the observers rated drop-off exchanges between parents and professionals for a period of 60 minutes. One of the observers started the observation at the moment a parent entered the classroom. After the farewell (or the parent's leaving), the observer stopped observing and recorded their observations. This process was repeated continuously. The second observer recorded interactions between professionals and parents who may have entered while another parent was already being observed. Consequently, no more than two parents could be observed simultaneously. To examine inter-rater

Table 1
Descriptive statistics for preschools.

Characteristic	M	SD	Min	Max
Professional-child ratio	5.03	3.82	0.20	36.00
Percentage of professionals with a university degree[a]	11.41	9.71	0.00	44.44
Percentage of children not speaking German at home	41.00	27.19	0.00	100.00
Percentage of children under three years old	20.83	11.38	0.00	51.32
Size of preschool (number of children)	99.88	48.95	35	322
Organization of pedagogical work (classroom-based/open plan work)	30.8 %	Classroom-based		

[a] Professionals holding a university degree either finished a Bachelor's or Master's program in early childhood education or related subjects. Professionals without a university degree either completed a three-year post-secondary vocational training program (educator), a two-year study program at upper secondary vocational level (childcare assistants), or a comparable training program.

Note. N = 107.

	1	*2*	*3*	*4*
Welcoming[a]	No greeting or only greeting of the child	Greeting by simple 'hello', 'hi', 'good morning'	Greeting and short question on the current state of health	Greeting with names and short question on the current state of health
Speaker changes and conversation parts[b]	No speaker changes with parent (monologue)	Rare speaker changes or unbalanced conversation parts (e.g. one-sided short questions or answers)	More frequent speaker changes and unbalanced or very short parts of the conversation (e.g. one-sided short questions/answers or only emotional and exclamatory words)	Equal shares of conversation (both partners have the opportunity to contribute equal ratio of questions and answers)
Posture[c]	Professional turns away continuously or turned towards child only	Professional turns towards parents for very short time only	Professional holds posture towards parents and maintains eye level with parents	Professional actively approaches parents (distance 50cm – 1m) and (if applicable) mirrors parents' posture

Note. [a]subscale willingness to communicate and interact, [b]subscale communication strategies, [c]subscale farewell.

Fig. 1. Example scale items for interaction quality between parents and professionals.

reliability, a third observer independently rated the same parent-professional interactions as one of the other two observers in a subsample of 34 preschools (31.8%) and 293 drop-off situations (32.1%). The fidelity of implementation of the observations was ensured through a preselection of sufficiently qualified observers based on the following criteria: (1) held a Bachelor's degree in early childhood education or a related field, or (2) had experience working on research studies that required observations or (3) that involved childcare. The observers received extensive and ongoing training on the instrument, consisting of three phases. First, observers participated in an 8-hour workshop that utilised an observer manual and several practical exercises (rating videos of drop-off situations). Second, each observer had to practice one 1-hour observation in a preschool. An observer was only certified for the study if they achieved an inter-rater agreement of at least 80%. The third phase included a joint reflection with the trainer on the experiences with the tool during the practice observation, as well as frequent supervision via telephone during the field phase of the study.

7.4. Statistical analyses

In the first step, descriptive analyses were conducted and the inter-rater reliability of the thirteen items assessing the interaction quality was established. The intraclass correlation coefficients (ICC) were calculated using the SPSS statistical package version 25, based on a two-way-mixed effects model, with single measures and absolute agreement (McGraw & Wong, 1996). Results indicate moderate to good inter-rater reliability (see Table 2; Leslie & Fleenor, 1998). Therefore, in those cases in which two observers rated the same drop-off situation, the assessments of one of the observers were randomly selected for the final scores.

In a second step, the empirical structure of the interaction quality was investigated using confirmatory factor analysis (CFA). We compared (1) a g-factor model to (2) a three-factor model, with the three theoretical dimensions: willingness to communicate and interact, communication strategies, and farewell. Goodness-of-fit of the CFA was assessed with reference to several indicators: (1) chi-square value, (2) the Comparative Fit Index (CFI), and (3) the Root Mean Square Error of Approximation (RMSEA). Models with a CFI above .95 and an RMSEA below .08 are generally regarded as good or moderate approximations of the given data (Hu & Bentler, 1999). In the CFA, we controlled for the nested structure of the data by using corrected standard errors and fit statistics (type = complex; cluster = professionals). Based on the CFA results, mean scores of the subscales were calculated.

To investigate the relation between the quality of parent-professional interactions and the preschool characteristics, we ran three separate regression models with each interaction quality subscale as a dependent variable. Professional-child ratio was assessed in each drop-off situation, thus entered at level 1. The other preschool characteristics – percentage of professionals with a university degree within the team, percentage of children not speaking German at home, percentage of children under three years old, organisation of child drop-off – were entered at level 2. The geographical location of the preschool (city/medium-sized town (reference group)/small town and rural area) was entered as control variable in the models. The data were clustered by preschools (type = two level). All multivariate analyses were performed with the program Mplus Version 8.3 (Muthén & Muthén, 1998-2017). Missing data were estimated using full information maximum likelihood (FIML). However, the amount of missing data on the observed variables of the three subscales was not substantial, and the data were missing completely at random (subscale willingness to communicate and interact: between 0.3% and 2.1% missing; MCAR; $x2 = 11.682$, $df = 10$, $p > 0.05$; subscale communication strategies: between 1.2% and 2.6% missing; MCAR; $x2 = 22.266$, $df = 28$, $p > 0.05$; subscale farewell: between 1.0% and 2.4% missing; MCAR; $x2 = 19.152$, $df = 18$, $p > 0.05$).

Table 2
Descriptive statistics for interaction quality between parents and professionals.

Item content by factor	M	SD	ICC[d]	ICC[e]
Willingness to communicate and interact[a]				
Posture	2.16	1.07	.21	.68
Eye contact	2.57	1.01	.19	.59
Facial expression	2.94	1.02	.25	.49
Welcoming	1.91	0.57	.15	.62
Communication strategies[b]				
Posture	2.66	1.06	.18	.67
Eye contact	3.08	0.87	.15	.58
Speaker changes + conversation parts	2.68	0.99	.16	.55
Parent-centred conversation	2.30	0.82	.13	.63
Conclusion of conversation	1.98	0.86	.12	.44
Farewell[c]				
Posture	1.59	0.85	.17	.73
Eye contact	1.82	0.99	.13	.68
Facial expression	2.18	1.18	.14	.74
Farewell	1.61	0.69	.16	.70

[a] N = 912
[b] N = 503
[c] N = 912
[d] ICC = Intraclass correlation coefficients for interaction quality between parents and professionals at preschool level
[e] ICC = Intraclass correlation coefficients to assess inter-rater reliability for interaction quality between parents and professionals

8. Results

8.1. Descriptives of the drop-off situations

In the present study, a total of 912 child drop-off situations were observed, varying between 3 and 15 situations per preschool (M = 8.52, SD = 2.85). The number of situations observed per professional varied between 1 and 14 (M = 4.88, SD = 3.06). Mostly (96%), one person brought the child to the preschool. In about half of the situations (54 %), the parents went into the child's classroom for drop-off; in the other situations, the interactions between parents and professionals took place in other locations, such as the entrance area or the cloakroom. In 55% of the situations (N = 503), communication apart from greeting took place. In those cases, the mean duration of a conversation was 64 s (SD = 101 s), whereas the median duration of conversations was 36 s.

Table 2 shows the descriptives of the interaction quality between parents and professionals for each item. While the item scores of the professionals' willingness to communicate and interact and communication strategies are sometimes well above the theoretical mean (M = 2.5), all item scores of the farewell are well below it. Within these three factors, non-verbal aspects of interaction, such as eye contact and facial expression, are particularly highly rated, while verbal aspects show lower ratings. Thus, one fifth of the parents was not even greeted, and as many as half of the parents were not said goodbye to while dropping off their child.

8.2. Psychometric properties and structure of interaction quality

The structure of the interaction quality was investigated using CFA. We compared (1) a g-factor model to (2) a three-factor model, with the three theoretical factors: willingness to communicate and interact, communication strategies, and farewell. The goodness-of-fit indices for the single- and three-factor models are presented in Table 3. The results indicate that the g-factor model does not fit the data well. The CFI is small and the RMSEA is too large to be considered a good model fit (Hu & Bentler, 1999). In contrast, the three-factor model, with willingness to communicate and interact, communication strategies, and farewell as three separate factors, fits the data better but does not adequately reflect the dimensions of interaction quality. An explanation for this result may be that the 3-factor model does not consider the fact that the aspect of posture is measured three times in each drop-off situation, but the three

Table 3
CFA results.

Model	χ^2 (df)	CFI	RMSEA (90% CI)	$\Delta\chi^2$ (df)
g-factor model	1392.92*** (65)	.53	.15 [.14, .16]	-
3-factor model[a]	350.23*** (62)	.90	.07 [.06, .08]	697.61*** (3)
3-factor model[b]	252.22*** (59)	.93	.06 [.05, .07]	82.22*** (3)

[a] 3-factor model = the three-factor model, with willingness to communicate and interact, communication strategies, and farewell as three separate factors.
[b] 3-factor model = the three-factor model, with willingness to communicate and interact, communication strategies, and farewell as three separate factors and including the residual covariances between the three posture items.

*p < .05. **p < .01. ***p < .001. Note. N = 912. χ^2 = Chi-square value. df = degrees of freedom. CFI = comparative fit index. RMSEA = root mean square error of approximation. CI = confidence interval. The scaled chi-square difference tests statistics ($\Delta\chi^2$ [df]), as well as the corresponding p-values, refer to the differences between the model fit of the present row compared to the previous row.

items that measure posture are assigned to different theoretical factors. Drop-off situations often progress very quickly, so it is to be expected that the professionals' posture will remain stable throughout a single situation; thus, strong intercorrelations[3] will exist between the three posture items, although they are assigned to different theoretical factors. Considering this assumption by including the residual covariances between the three posture items in the final model, this is reflected in an acceptable model fit (3-factor model[b] in Table 3). The overall goodness-of-fit can be described as moderate to good. Based on the CFA results, three scale scores were formed by computing the average across items loading on the same factor. Internal consistency coefficients for all scales were high (see Table 4). The mean values of the three subscales range between 1.80 (SD = 1.75) and 2.54 (SD = 0.72), with farewell being the lowest scoring subscale.

8.3. Relation between preschool characteristics and interaction quality

The regression results are presented in Table 5. On level 1, the professional-child ratio was negatively related to the interaction quality between parents and professionals. The more children a professional must take care of, the lower the quality in the subscale farewell (β = -.10, p = .003). Similar tendencies can be seen with regard to the subscale willingness to communicate and interact (β = -.09, p = .097). On level 2, preschools that organised the pedagogical work in classrooms showed better interaction quality than preschools that used the open plan work approach: willingness to communicate and interact (β = .26, p = .022), communication strategies (β = .34, p = .021), and farewell (β = .27, p = .032). In addition, we found positive relations between professionals' qualifications and the subscales willingness to communicate and interact (β = .32, p = .041) and farewell (β = .41, p = .022). To summarise, the higher the percentage of professionals with a university degree within the team, the higher the interaction quality was rated. No results were found for the other preschool characteristics. Overall, preschool characteristics explained 22% of the variance in the professionals' willingness to communicate and interact, 17% of the variance in the professionals' communication strategies, and 33% of the variance in the professionals' farewells.

Table 4
Scale descriptives for interaction quality between parents and professionals.

Subscales	Number of items	α	M	SD
Willingness to communicate and interact[a]	4	.79	2.29	0.73
Communication strategies[b]	5	.84	2.54	0.72
Farewell[c]	4	.88	1.80	0.81

[a] N = 912
[b] N = 503
[c] N = 912.
Note. α = Cronbach's alpha.

Table 5
Standardised regression coefficients for interaction quality between parents and professionals predicted by structural quality in preschool.

Predictor	Willingness to communicate and interact[a]	Communication strategies[b]	Farewell[c]
	β	β	β
Level 1 (drop-off situation)			
Professional-child ratio	-.09[#]	.00	-.10**
Level 2 (preschool)			
Percentage of professionals with a university degree within the team	.32*	.05	.41*
Percentage of children not speaking German at home	.09	-.14	.21
Percentage of children under three years old	-.06	.02	-.03
Organization of pedagogical work[d]	.26*	.34*	.27*
Size of the preschool	.06	.01	-.03
R^2 (level 1)	.01	.00	.01
R^2 (level 2)	.24	.17	.33[#]

Note. Preschool sample (N = 107). Drop-off situation sample (N^a = 912. N^b = 503. N^c = 912). In all models, geographical location of the preschool was included as control variable at preschool level, although not shown in the table. [d]0 = open plan work (reference group), 1 = classroom-based. [#]p < .10. *p < .05. **p < .01.

9. Discussion

To our knowledge, this is the first study that focuses on the interaction quality between parents and professionals during child drop-off in German preschools. First, a new observational scale was introduced and psychometric information provided. In the second part, we investigated preschool characteristics that may related to the interaction quality between parents and professionals. The key findings can be summarised as follows: Interactions between parents and professionals are quite limited. In particular, low quality scores were found for verbal aspects. The distinction between the three theoretical components – willingness to communicate and interact, communication strategies, and farewell – was empirically evident. The high alphas of the three subscales, as well as the high levels of inter-rater reliability, provide initial evidence of the reliability of the new tool. Professional-child ratio, organisation of the pedagogical work, and professionals' qualifications were associated with the interaction quality between parents and professionals during child drop-off.

The most striking result of this study is that the theoretically postulated 3-factor structure of the interaction quality between parents and professionals – willingness to communicate and interact, communication strategies, and farewell – could be empirically proven. It is the first study to present empirical evidence for the transferability of the person-centred approach to the early childhood education context. Importantly, the psychometric properties for all of the three subscales were satisfactory, providing reliable scales for future research. Nevertheless, the low inter-rater agreement of a few items indicates that the training concept should be further developed. For example, in a feedback meeting, some observers already reported that there were no indications

[3] The intercorrelation coefficients between the posture items are varying from .37** to .53** (**p < .01).

in the training materials on how to evaluate the item facial expression in case the professional spontaneously turned his or her face away and the observers could no longer see it clearly.

In line with previous research (e.g., Endsley & Minish, 1991; Perlman & Fletcher, 2012), our results reveal that most interactions between parents and professionals during morning drop-off are brief and limited. An explanation for this finding may be that the observations were conducted during the morning drop-off and not the pick-up period. Parents may have more time in the afternoon or may be more interested in feedback at this time, since they are about to take over the caregiving responsibility for the rest of the day. However, Endsley and Minish (1991) noted no significant differences in the frequency, length, content, or atmosphere of parent-preschool communication between drop-off and pick-up times. In this context, McGrath (2007) points out that low quality of interactions between parents and professionals may reflect the absence during transition times of those professionals who have spent most of the day with the child.

In the second part of the study, we hypothesised that characteristics of preschools are associated with the interaction quality between parents and professionals during child drop-off. The hypothesis was only partially supported. We found three relevant relations: First, professional-child ratio was negatively related to the interaction quality in the subscale farewell. Similar trends can also be seen with regard to the negative relation between the professional-child ratio and the professionals' willingness to communicate and interact. An explanation for these findings may be that drop-off and pick-up represent particularly task-intensive and stressful situations for professionals (Reedy & McGrath, 2010): On the one hand, there is the opportunity to interact and communicate with the parents; on the other hand, the care of the children still has priority. At the same time, the staffing situation is often worse, especially during transition times. Our results are contradictory to the study by Perlman and Fletcher (2012), which could not find relations between the professional-child ratio and aspects of parent-professional communication during drop-off situations. One explanation for the contradictory findings could be methodological limitations: In the present study, the professional-child ratio was observed in each drop-off situation. As such, more variation can be found on the professional-child ratio compared to the study by Perlman and Fletcher (2012), which considered this structural aspect only at the preschool level.

Secondly, results reveal that preschools with a higher percentage of professionals with a university degree within the team showed a higher level of quality in the subscales willingness to communicate and interact and farewell. These findings are consistent with previous studies that have found positive relations between professionals' qualifications and aspects of PPP (Castro et al., 2004; Cohen & Anders, 2019). In contrast to this research, however, in the present study, the professionals' qualifications were considered at the preschool level: One possible mechanism could be that a higher percentage of professionals with a university degree within the team contributes, through professional exchange, to higher professional competencies of all team members within a preschool, which in turn is positively related to the interaction quality between parents and professionals. Academic training for preschool professionals has only recently been made available in Germany, and it can thus be assumed that the curricula of Bachelor's and Master's programs will take greater account of more innovative PPP approaches; as such, they are likely to address the professional competencies which are important for parent-professionals communication (e.g., professional knowledge about effective communication techniques, the awareness of the importance of communicating with parents) more intensively than was the case for older vocational training programs, in which professionals are trained in a way that defines their professional role in reference to the children and not to their parents. Therefore, professionals with a university degree can function as role models and multipliers and thereby serve as leaders of practice in the field of parental cooperation.

Thirdly, preschools that organised the pedagogical work in classrooms exhibited better quality in all three subscales – willingness to communicate and interact, communication strategies, and farewell – than preschools with an open plan work concept. One explanation for this finding might be that structural conditions in drop-off situations are better in preschools which are structured in classrooms, thanks to factors such as the children being brought to separate classrooms, the presence of head professionals who are also responsible for the child during the day, a smaller number of children being brought at the same time by their parents, and clear agreements between professionals as to who is responsible for communication with parents.

9.1. *Limitations and future research*

There are some limitations to the present study that should be noted. First, although the sample was drawn from preschools in eight German federal states representing different regions and different structures in preschool settings, it was not randomly selected. Moreover, the sample is not representative of preschools in Germany, on the one hand due to its small sample size and on the other due to the participation of all settings in a federal program with a specific focus on PPP. Therefore, it can be assumed that the present sample is selective for preschools and professionals that deal more closely with the topic of PPP. The interaction quality between parents and professionals in other, regular settings may be different. Second, it cannot be completely ruled out that the professionals' awareness of being observed influences their interaction behaviour: In view of the fact that no concrete evaluation criteria were mentioned to the professionals and feedback was anonymous, aggregated at preschool level, and not given to the supervisors, we would however feel confident excluding this factor. Third, due to the limited observation resources of each individual observer in the live situation, not all interactions between parents and professionals during morning drop-off could be observed. It would therefore be worthwhile to compare video observations to live observations in future research. Video observation would also be useful in view of the sometimes very brief interactions, in which details are often difficult to observe. In this way, inter-rater agreement could also be increased even more. However, the amount of missing data on the observed variables was very small, indicating that the drop-off situations are easily observable live, despite their sometimes fast-moving nature. Moreover, video observation would have involved other methodological challenges (e.g., lower ecological validity), higher costs, and study management resources. Fourth, the child's perspective was not considered either in the observational tool or in the study. It may be the case that the professionals are more focused on the needs of the children in these transition times, or are more comfortable and interested in working with children than they are with adults. In order to be able to rule out a trade-off effect, it is essential in future research to investigate the extent to which professionals refrain from communicating with parents in favour of interacting with children. However, this may affect the number of conversations that take place, but should not affect the professionals' willingness to communicate and interact. Nevertheless, a further development of the tool, one that considers the child's perspective, is necessary in order to be able to exclude these interrelations in future.

This study provides future studies with an observational instrument that is adequate for assessing interaction quality between parents and professionals during transition times. In future research, the instrument might be used to evaluate interaction quality during pick-up times in the afternoon, comparing it with interaction quality during drop-off times. In addition, the tool can be used to evaluate the effectiveness of interaction quality between parents and professionals on trustful relationships, parental involvement activities, and child outcomes. Furthermore, due to the fact that stable and ongoing parent-professional communication via other channels, such as emails or notes, may influence the interaction quality during transition times (e.g., parents and professionals might feel less need to interact in person at busy transition

times), in future the observational tool must account for other forms of informal communication between parents and professionals. Moreover, future research must investigate other potential confounding predictors of interaction quality between parents and professionals besides the structural characteristics of the preschools, such as individual characteristics of the professionals (e.g., extraversion or stress) and of the parents and children (e.g., sex, ethnicity). Also of interest is whether different demographic subgroups of parents are associated with specific communication methods, consequently influencing the quality of interaction in transition times. For example, are parents who are headed to work after drop-off less likely to interact with professionals than those who do not work outside the home? Do professionals interact with these parents in other ways, such as via email or children's work folders?

10. Conclusion

The present study provides evidence of the importance of preparing professionals to establish positive PPP as part of daily preschool routines. Professionals play an active role in encouraging parents to get involved in the education of their children and in PPP. The results of this study indicate that in the future, policy efforts must be made to improve the structural characteristics (e.g., professional-child ratio) of preschool settings to enhance family outreach. Specific structural support, such as extra staff for working with families, might be effective. Additionally, suitable staffing patterns must be guaranteed so that those professionals who have spent most of the day with the children are also present at drop-off and pick-up times. In this way, quality can be improved, even when staff resources are scarce. Furthermore, in view of the potential impact of the academic training of preschool staff and the fact that academically trained preschool professionals are still rare in Germany, political efforts to further expand Bachelor's and Master's programs are worthwhile when aiming to enhance parent-professional communication. When trying to integrate parent-professional communication into the daily routines of preschools, professionals cannot work using fixed procedures. They have to spontaneously react to parents' interests, using them to create interaction opportunities; professionals must also consistently work with a highly diverse group of families with correspondingly diverse needs. Therefore, additionally, ongoing support is needed to address the specific challenges within individual preschools and to enable professionals to realise high-quality interaction processes under different structural conditions.

Ethics approvals

This work was reviewed by the Ethics Committee of the University of Bamberg, Germany, and an approval granted (No. 2022-03/11).

Funding

This work was supported by the German Federal Ministry for Family Affairs, Senior Citizens, Women, and Youth.

Declaration of Competing Interest

The authors report there are no competing interests to declare

Acknowledgements

We would like to thank all participating children and their parents, the educational professionals, and all students engaged in data collection for their most active cooperation.

References

Adams, K. S., & Christenson, S. L. (2000). Trust and the family–school relationship examination of parent–teacher differences in elementary and secondary grades. *Journal of School Psychology, 38*(5), 477–497. https://doi.org/10.1016/S0022-4405(00)00048-0

Barbarin, O. (2000). *Home-school relationships questionnaire [unpublished measure]*. University of North-Carolina-Chapel Hill: National Center for Early Development and Learning.

Barenthien, J., Oppermann, E., Steffensky, M., & Anders, Y. (2019). Early science education in preschools – the contribution of professional development and professional exchange in team meetings. *European Early Childhood Education Research Journal, 27*(5), 1–14. https://doi.org/10.1080/1350293X.2019.1651937

Behr, M., & Aich, G. (2017). Empathische Gesprächsführung mit Kita-Eltern – eine Hilfe für frühpädagogische Fachkräfte. In G. Aich, C. Kuboth, & M. Behr (Eds.), *Kooperation und kommunikation mit eltern in frühpädagogischen einrichtungen* (pp. 120–131). Beltz Juventa.

Berc, H., Doucette, J. L., DiGennaro Reed, F. D., Neidert, P. L., & Henley, A. J. (2014). Improving the quality of parent-teacher interactions in an early childhood classroom. *Behaviour Analysis in Practice, 7*(2), 47–50. https://doi.org/10.1007/s40617-014-0012-5

Bergmann, J. R. (1990). On the local sensitivity of conversation. In I. Markovà, & K. Foppa (Eds.), *The dynamics of dialogs* (pp. 201–226). Harvester Wheatsheaf.

Cadima, J., Peixoto, C., & Leal, T. (2012). Observação das interacções educador-criança: Escala de interacção do prestador de cuidados [Observation of teacher-child interactions: Scale interaction carer]. *Análise Psicológica, 30*(4), 373–386.

Castro, D. C., Bryant, D. M., Peisner-Feinberg, E. S., & Skinner, M. L. (2004). Parent involvement in head start programs: The role of parent, teacher and classroom characteristics. *Early Childhood Research Quarterly, 19*(3), 413–430. https://doi.org/10.1016/j.ecresq.2004.07.005

Cheatham, G. A., & Ostrosky, M. M. (2009). Listening for details of talk: Early childhood parent-teacher conference communication facilitators. *Young Exceptional Children, 13*(1), 36–49. https://doi.org/10.1177/1096250609347283

Clarke, B. L., Sheridan, S. M., & Woods, K. E. (2010). Elements of healthy family-school relationships. In S. L. Christenson, & A. L. Reschly (Eds.), *Handbook of school-family partnerships* (pp. 61–79). Routledge.

Clarke, B. L., Sheridan, S. M., & Woods, K. E. (2014). Conjoint behavioral consultation: Implementing a tiered home-school partnership model to promote school readiness. *Journal of Prevention and Intervention in the Community, 42*(4), 300–314. https://doi.org/10.1080/10852352.2014.943636

Coelho, V., Barros, S., Burchinal, M. R., Cadima, J., Pessanha, M., Pinto, A. I., Peixoto, C., & Bryant, D. M. (2019). Predictors of parent-teacher communication during infant transition to childcare in Portugal. *Early Child Development and Care, 189*(13), 2126–2140. https://doi.org/10.1080/03004430.2018.1439940

Cohen, F., & Anders, Y. (2019). Family involvement in early childhood education and care and its effects on the social-emotional and language skills of 3-year-old children. *School Effectiveness and School Improvement, 31*(1), 125–142. https://doi.org/10.1080/09243453.2019.1646293

Coulthard, M., & Condlin, C. N. (2014). *An introduction to discourse analysis*. Routledge. https://doi.org/10.4324/9781315835884

Cryer, D., Tietze, W., & Wessels, H. (2002). Parents' perceptions of their children's child care: A cross-national comparison. *Early Childhood Research Quarterly, 17*, 259–277. https://doi.org/10.1016/S0885-2006(02)00148-5

Dahlberg, G., & Moss, P. (2004). *Ethics and politics in early childhood education*. Routledge.

Early, D. M., Maxwell, K. L., Burchinal, M., Alva, S., Bender, R. H., Bryant, D., Cai, K., Clifford, R. M., Ebanks, C., Griffin, J. A., Henry, G. T., Howes, C., Iriondo-Perez, J., Jeon, H.-J., Mashburn, A. J., Peisner-Feinberg, E., Pianta, R. C., Vandergrift, N., & Zill, N. (2007). Teachers' education, classroom quality, and young children's academic skills: Results from seven studies of preschool programs. *Child Development, 78*(2), 558–580. https://doi.org/10.1111/j.1467-8624.2007.01014.x

Endsley, R. C., & Minish, P. A. (1991). Parent-staff communication in day care centers during morning and afternoon transitions. *Early Childhood Research Quarterly, 6*(2), 119–135. https://doi.org/10.1016/0885-2006(91)90002-3

Galindo, C., & Sheldon, S. B. (2012). School and home connections and children's kindergarten achievement gains: The mediating role of family involvement. *Early Childhood Research Quarterly, 27*(1), 90–103. https://doi.org/10.1016/j.ecresq.2011.05.004

Giovacco-Johnson, T. (2009). Portraits of partnership: the hopes and dreams project. *Early Childhood Education Journal, 37*(2), 127–135. https://doi.org/10.1007/s10643-009-0332-1

Gordon, T. (2003). *Teacher effectiveness training*. Three Rivers Press.

Grady, J. S., Ale, C. M., & Morris, T. L. (2012). A naturalistic observation of social behaviours during preschool drop-off. *Early Child Development and Care, 182*(12), 1683–1694. https://doi.org/10.1080/03004430.2011.649266

Günther, U. (2003). Basics der Kommunikation. In A. E. Auhagen, & H. W. Bierhoff (Eds.), *Angewandte Sozialpsychologie: Das Praxishandbuch* (pp. 17–42). Beltz.

Guo, Y. (2002). *Chinese parents and ESL teachers: Understanding and negotiating their differences [dissertation]*. The University of British Columbia.

Hu, L. T., & Bentler, P. M. (1999). Cut-off criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives structural equation modeling. *A Multidisciplinary Journal, 6*(1), 1–55.

Hummel, T. G., Cohen, F., & Anders, Y. (2022). Parents' trust in their child's preschool: associations with child and family characteristics and aspects of parent-preschool communication. *Early Education and Development*. https://doi.org/10.1080/10409289.2022.2101344

Intxausti, N., Etxeberria, F., & Joaristi, L. (2013). Involvement of immigrant parents in their children's schooling in a bilingual educational context: The basque case (Spain). *International Journal of Educational Research, 59*, 35–48. https://doi.org/10.1016/j.ijer.2013.02.006

Kim, Y. (2009). Minority parental involvement and school barriers: Moving the focus away from deficiencies of parents. *Educational Research Review, 4*(2), 80–102. https://doi.org/10.1016/j.edurev.2009.02.003

Leslie, J. B., & Fleenor, J. W. (1998). Feedback to managers: A review and comparison of multi-rater instruments for management development. Center for creative leadership. https://www.humansynergistics.com/docs/default-source/research-publications/leslie-j-b-amp-fleenor-j-w-(1998)-feedback-to-managers-a-review-and-comparison-of-multi-rater-instruments-for-management-development-(3rd-ed-)-greensboro-nc-center-for-creative-leadership-lws.pdf.

Lin, J., Litkowski, E., Schmerold, K., Elicker, J., Schmitt, S. A., & Purpura, D. J. (2019). Parent-educator communication linked to more frequent home learning activities for preschoolers. *Child care quarterly, 48*(5), 757–772. https://doi.org/10.1007/s10566-019-09505-9

Maras, E. Q., Lang, S. N., & Schoppe-Sullivan, S. J. (2018). An observational assessment of parent-teacher cocaring relationships in infant-toddler classrooms. *European Early Childhood Education Research Journal, 26*(2), 212–228. https://doi.org/10.1080/1350293X.2018.1442033

Mautone, J. A., Marcelle, E., Tresco, K. E., & Power, T. J. (2015). Assessing the quality of parent-teacher relationships for students with ADHD. *Psychology in the Schools, 52*(2), 196–207. https://doi.org/10.1002/pits.21817

McGrath, W. H. (2007). Ambivalent partners: Power, trust, and partnership in relationships between mothers and teachers in a full-time child care center. *Teachers College Record, 109*(6), 1401–1422.

McGraw, K. O., & Wong, S. P. (1996). Forming inferences about some intraclass correlation coefficients. *Psychological Methods, 1*(1), 30–46.

McNaughton, D., Hamlin, D., McCarthy, J., Head-Reeves, D., & Schreiner, M. (2008). Learning to listen: Teaching an active listening strategy to pre-service education professionals. *Topics in Early Childhood Special Education, 27*(4), 223–231. https://doi.org/10.1177/0271121407311241

Mocan, N. (2007). Can consumers detect lemons An empirical analysis of information asymmetry in the market for child care. *Journal of Population Economics, 20*(4), 743–780. https://doi.org/10.1007/s00148-006-0087-6

Murray, E., McFarland-Piazza, L., & Harrison, L. J. (2015). Changing patterns of parent-teacher communication and parent involvement from preschool to school. *Early Child Development and Care, 185*(7), 1031–1052. https://doi.org/10.1080/03004430.2014.975223

Muthén, L. K., & Muthén, B. O. (1998 -2017). Mplus user's guide. (Eighth Edition).

Neumann, U. (2012). Zusammenarbeit mit Eltern in interkultureller Perspektive. Forschungsüberblick und das Modell der regionalen Bildungslandschaften. *DDS - Die Deutsche Schule, 104*, 363–373.

O'Shea, D. J. (2000). *Families and teachers of individuals with disabilities: Collaborative orientations and responsive practices*. Allyn and Bacon.

Owen, M. T., Ware, A. M., & Barfoot, B. (2000). Caregiver-mother partnership behavior and the quality of caregiver-child and mother-child interactions. *Early Childhood Research Quarterly, 15*(3), 413–428. https://doi.org/10.1016/S0885-2006(00)00073-9

Penderi, E. (2012). *Family-school connection in the kindergarten: A study of parental involvement and the factors that influence its development [Dissertation]*. University of Thrace.

Perlman, M., & Fletcher, B. A. (2012). Hellos and how are yous: Predictors and correlates of communication between staff and families during morning drop-off in child care centers. *Early Education & Development, 23*(4), 539–557. https://doi.org/10.1080/10409289.2010.548766

Pianta, R., Howes, C., Burchinal, M., Bryant, D., Clifford, R., Early, D., & Barbarin, O. (2005). Features of pre-kindergarten programs, classrooms, and teachers: Do they predict observed classroom quality and child-teacher interactions. *Applied Developmental Science, 9*(3), 144–159. https://doi.org/10.1207/s1532480xads0903_2

Rao, N., Koong, M., Kwong, M., & Wong, M. (2003). Predictors of preschool process quality in a Chinese context. *Early Childhood Research Quarterly, 18*(3), 331–350. https://doi.org/10.1016/S0885-2006(03)00043-7

Reedy, C. K., & McGrath, W. H. (2010). Can you hear me now Staff-parent communication in child care centres. *Early Child Development and Care, 180*(3), 347–357. https://doi.org/10.1080/03004430801908418

Resa, E., Groeneveld, I., Turani, D., & Anders, Y. (2018). The role of professional exchange in improving language-related process quality in daycare centres. *Research Papers in Education, 33*(4), 472–491. https://doi.org/10.1080/02671522.2017.1353671

Rimm-Kaufman, S. E., & Pianta, R. C. (1999). Patterns of family-school contact in preschool and kindergarten. *School Psychology Review, 28*(3), 426–438. https://doi.org/10.1080/02796015.1999.12085975

Rimm-Kaufman, S. E., & Pianta, R. C. (2005). Family-school communication in preschool and kindergarten in the context of a relationship-enhancing intervention. *Early Education & Development, 16*(3), 287–316. https://doi.org/10.1207/s15566935eed1603_1

Rimm-Kaufman, S. E., Pianta, R. C., Cox, M. J., & Bradley, R. H. (2003). Teacher-rated family involvement and children's social and academic outcomes in kindergarten. *Early Education & Development, 14*(2), 179–198. https://doi.org/10.1207/s15566935eed1402_3

Rogers, C. (1973). Client-centered therapy: Its current practice, implications, and theory. Constable.

Rolfe, S. A., & Armstrong, K. J. (2010). Early childhood professionals as a source of social support: The role of parent–professional communication. *Australasian Journal of Early Childhood, 35*(3), 60–67. https://doi.org/10.1177/183693911003500308

Serpell, Z. N., & Mashburn, A. J. (2012). Family-school connectedness and children's early social development. *Social Development, 21*(1), 21–46. https://doi.org/10.1111/j.1467-9507.2011.00623.x

Shimoni, R. (1992). Parent involvment in early childhood education and day care. *Sociological Studies of Child Development, 5*, 73–95.

Shpancer, N., Bowden, J., Ferrell, M., Pavlik, S., Robinson, M., Schwind, J., Volpe, E., Williams, L., & Young, J. (2002). The gap: Parental knowledge about daycare. *Early Child Development and Care, 172*(6), 635–642. https://doi.org/10.1080/03004430215108

Skouteris, H., & Dissanayake, C. (2001). *Daycare experience questionnaire [Unpublished manuscript]*. La Trobe University.

Slot, P. (2018). *Structural characteristics and process quality in early childhood education and care: A literature review*. OECD Publishing. https://doi.org/10.1787/19939019

Summers, J. A., Hoffman, L., Marquis, J., Turnbull, A., Poston, D., & Nelson, L. (2005). Measuring the quality of family-professional partnerships in special education services. *Exceptional Children, 72*(1), 65–81. https://doi.org/10.1177/001440290507200104

Swartz, M. I., & Easterbrooks, M. A. (2014). The role of parent, provider, and child characteristics in parent–provider relationships in infant and toddler classrooms. *Early Education & Development, 25*(4), 573–598. https://doi.org/10.1080/10409289.2013.822229

Tausch, A., & Tausch, R. (1990). *Gesprächspsychotherapie*. Hogrefe.

Van Keulen, A., & Van Beurden, A. (2002). *Van alles wat meenemen: Opvoedingsstijlen in muliticultureel Nederland*. Coutinho.

Watzlawick, P., Beavin, J. H., & Jackson, D. D. (2017). *Menschliche Kommunikation*. Hogrefe.

Weiss, H. B., Lopez, M. E., Kreider, H., & Chatman-Nelson, C. (2014). *Preparing educators to engage families: Case studies using an ecological systems framework*. Sage Publications.

Winkelstein, E. (1981). Day care/family interaction and parental satisfaction. *Child care quarterly, 10*(4), 334–340. https://doi.org/10.1007/BF01160689

Zellman, G. L., & Perlman, M. (2006). Parent involvement in child care settings: Conceptual and measurement issues. *Early Child Development and Care, 176*(5), 521–538. https://doi.org/10.1080/03004430500147490