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# **Documentation Strategies. Pedagogical Documentation from the Perspective of Early Childhood Teachers in New Zealand and Germany**

## **Abstract**

Pedagogical documentation is practised in early childhood centres all over the world as a means to gauge the learning and development of children. From the point of view of teachers, however, documentation must compete with numerous other tasks. This paper explores the strategies teachers employ in order to integrate documentation into their working day. It takes a comparative approach, analysing documentation strategies in two countries. Accordingly, qualitative interviews were conducted with 24 teachers from early childhood centres in Germany and New Zealand, in which they were asked about their documentation practices. The results show that the teachers have developed strategies primarily in order to gain time for documentation and to structure it in such a way that they can deal with the extra burdens it creates. The results highlight the profound influence of organisational framework conditions on the content of work in early childhood centres.

## **Keywords**

Early Childhood Education, Documentation, Learning Stories, International Comparison

## **Introduction**

### *Pedagogical Documentation*

Over the past 20 years, the focus on ECE in many countries of the world has increased considerably; the development and enhancement of institutional ECE care has played a significant role in this. The increasing importance of ECE in the context of the education system has led to a growing desire to observe and record the educational processes of children in more differentiated and systematic ways. At the same time, this development has brought

with it an increasing responsibility to document the work output in ECE centres. Documentation is understood here as the written, visual, and auditory recording of situations in early childhood centres. A broader understanding of this includes notes from observations and conversations, completed observation sheets, or other standardised methods of developmental diagnostics. More narrowly, documentation relates exclusively to the recording of processes and objects perceived by the senses, without associating the situation or the behaviour to certain developmental goals; it is a recording that is focused on the educational process (Knauf 2019). In this context, new methods of documenting educational and developmental processes have been developed and enhanced (e.g. Carr 2001; Dahlberg 2012; Harris Helm et al. 2007; Leu et al. 2007; Mitchell 2018; Project Zero and Reggio Children 2011).

Moreover, this increase in significance is reflected in the way documentation is taken into account in governmental guidelines for ECE. For example, in many countries documentation is mentioned in educational plans and curricula as an indicator or criterion of quality. Examples include Sweden (Emilson and Pramling Samuelsson 2014; Taguma et al. 2013), Finland (Rintakorpi 2016), New Zealand (Carr and Lee 2012), England (Basford and Bath 2014) and the educational plans of the German federal states (Knauf 2019); in each of these countries documentation is anchored in governmental frameworks. Similarly, the guidelines of the EU (European Commission 2014) and the OECD (2011) point to documentation as a key tool in quality and professional development in ECE.

Empirical research into pedagogical documentation has shown that documentation is much more than the written record of children's skills, activities, and modes of behaviour. The research in fact shows that pedagogical documentation is highly effective and contributes significantly to the construction of a particular picture of the child (e.g. Alasutari and Karila 2010; Alasutari et al. 2014; Knauf 2017a; 2018; Liljestrand and Hammarberg 2017; Vallberg-Roth and Månsso 2011). Pedagogical documentation is, at the same time, an ex-

pression of teachers' objectives and is a seismograph for the pedagogical work of the institution (Knauf 2017b). Moreover, pedagogical documentation can be an instrument for promoting children's participation and the development of democracy (Dahlberg et al. 2013; Falk and Darling-Hammond 2010; Knauf 2017c; Miller 2014; Picchio et al. 2014). Ultimately, documentation is seen also as particularly important in professional development (Löfgren 2015; Marcuccio n.d.; Turner and Krechevsky 2003) and as the basis for communicating with parents about educational processes (Gilkerson and Hanson 2000; Reynolds and Duff 2015; Rintakorpi et al. 2014).

Despite the increasing focus on documentation, and despite increased knowledge about its effects, there are clear indications that teachers are often unable to integrate documentation into their pedagogical working day. Teachers cite a general lack of time necessary for documentation as a primary obstacle (Viernickel et al. 2013). This lack is also connected with the belief on the part of teachers that the intensity of their work has increased in recent years (Spieß and Westermaier 2016), with the result that overall, in their opinion, they have less time to spend with the children (Hall and Leppelmeier 2015). They often see documentation as something that actually keeps them from their real work in direct contact with the children; they regard documentation as one of a growing number of burdensome bureaucratic requirements (Jungbauer and Ehlen 2013). Other obstacles include the lack of clarity regarding the objectives of the documentation and insufficient knowledge about the methods necessary to complete it (Knauf 2017a; 2018). In this context, Kroeger and Cardy (2006, p. 389) describe documentation as a 'Hard to reach place'.

### *Commonalities and Differences across Childcare in Germany and New Zealand*

In this respect, the difficulty of implementing documentation is not a problem limited to individual teachers, institutions, or countries; it is also evident from a global perspective. At the same time, the framework conditions vary considerably in different countries. Against

this background, this study takes a comparative approach in its analysis of documentation strategies in two countries: New Zealand and Germany. A number of particular similarities make it possible to compare them. For example, in both countries almost all children attend an ECE centre. Additionally, the ECE centres in both New Zealand and Germany are run either by public providers (the municipalities) or private providers (churches, parents' associations). At the same time, governmental authorities are responsible for the admission and monitoring of the institutions (OECD 2015). In both countries, ECE is financed by both public funding and parents (OECD 2015).

On the other hand, the countries are so different from one another that the inclusion of both requires an extension of the identifiable strategies. In New Zealand, the ECE centre sector is formally assigned to the Ministry of Education, whereas in Germany it is the responsibility of the Ministries of Social Affairs (in each respective state) (OECD 2015). In New Zealand, teachers have a university degree, whereas in Germany the usual qualification is – as it always has been – the vocational college certificate (Autorengruppe Fachkräftebarometer 2017). Additionally, the curricular basis of the work in ECE centres differs significantly. Since the introduction of the “Te Whariki” in 1996, New Zealand institutions have been bound to an obligatory national curriculum (Lee et al. 2013). At the core of this curriculum are learning stories; these are the sole form of assessment and are obligatory for ECE centres (Carr 2001; Carr and Lee 2012). By contrast, the educational plans of the German federal states apply in German ECE centres, yet they are obligatory to only a limited extent. Documentation is indeed anchored in the educational plans, and various methods of documentation are mentioned, yet the method of execution is – almost across the board – very general, leaving the individual institutions considerable scope for manoeuvre in terms of concrete implementation (Knauf 2019). For this reason there is a broad spectrum of documentation practice in Germany, from institutions which document to only a minimal degree, to institutions which document very intensively and in differentiated ways. Another key difference between New

Zealand and Germany is the daily routine and the extent of the care provided. In New Zealand, the daily routine in kindergarten (from age 2 to 5) is based on that of the primary school, so the core opening hours are between 8:30 and 14:30. Attempts are currently being made to extend the opening hours, particularly in the afternoons, and some private providers in particular are offering longer opening hours. However, particularly in the public institutions the emphasis is on the morning hours. Children therefore spend, on average, between 16.7 (kindergarten) and 24.7 (education and care) hours (OECD 2015) per week in ECE centres. At the same time, the teachers' usual weekly working hours extend significantly beyond the hours of supervision. In Germany, however, the hours of supervision are considerably longer; almost all institutions are open between 7:30 and 16:30. In the eastern part of Germany it is even common for institutions to be open between 6:00 and 17:00 (Autorengruppe Bildungsberichterstattung 2018). Timetabled hours when teachers are not working directly with the children are therefore rare and are handled very differently by different providers. There are evidently both commonalities and fundamental differences across childcare in Germany and New Zealand.

### *Definition of Strategy*

The present article examines how early-childhood teachers integrate documentation into their everyday work. Their routines and practices are referred to as strategies in the following. Originally a military term, the word strategy is used today primarily in economics. By “strategies” we mean modes of behaviour employed in order to reach a particular goal. Various concepts of strategy have been developed within economics and related sciences. The focus, however, is always on employing the available resources within a business in such a way that the business can achieve its objectives. Mintzberg and Waters (1985, p. 257) define strategy as ‘a pattern in a stream of decisions.’ Applied to pedagogical activity in general, or to documentation in particular, strategies can therefore be understood as decisions made by

teachers in order to produce documentation. Here, teachers employ the available individual, group, and institutional resources. The various decisions therefore give rise to patterns of behaviour. Generally, however, it is less about explicit decisions made with intention, and more about implicit and unconscious decisions.

#### *Research question*

The central research question pursued in this article is what (often implicit) strategies teachers develop in order to incorporate documentation into their work-routine. In order to carve out these strategies, barriers to using documentation should be identified.

The study presented here therefore explores the question of which strategies teachers develop in order to integrate documentation into their pedagogical work. The focus here is on process-oriented procedures of documentation (Knauf 2015; 2019; Mitchell 2018). These procedures emphasise the children's action of exploration and learning (i.e., the process) and not the outcome of their doings (i.e., certain competencies). Thus, the study does not take into account work with standardised, diagnostically oriented methods such as assessment scales or measurements of development.

## **Materials and Methods**

#### *Sampling and data collection*

In order to obtain answers to the question of strategies of documentation, it was necessary to include teachers who had extensive experience of documentation within their institutions. Because the practice of documentation varies considerably across Germany (Knauf 2015) and because there are no obligatory governmental requirements in terms of the form and scope of documentation (Knauf 2019), it seemed necessary to include additional teachers and institutions from a country in which there is a high level of obligatory documentation. New Zealand was chosen because a core element in the pedagogical work there is a process-

oriented narrative method of pedagogical documentation using the tool of learning stories. The organisational structures of ECE centres in New Zealand are also fundamentally different from those in Germany, so this study is able to illuminate a broad spectrum of documentation strategies. This explains why teachers from Germany and New Zealand were interviewed. In order to ensure the greatest possible comparability, teachers were selected from institutions in Germany that work as intensively with learning stories as in New Zealand. Interviewees from Germany were selected on the basis of the author's previously conducted research (Knauf 2018). The New Zealand institutions were selected on the basis of recommendations by an expert from New Zealand who was deeply involved in developing the concept of learning stories, and whose work as an advisor has given her a comprehensive overview of institutions and teachers in New Zealand. 12 teachers from Germany and 12 from New Zealand were interviewed for the study; in each case, half of the teachers work in institutions run by public providers and half in institutions run by private providers. All the respondents are female. According to national traditions, all the teachers from New Zealand had a university degree (Bachelor or Diploma), while only one participant from Germany had one (the others attended a professional school and are 'Erzieherinnen'). The participants on average had 18.6 years of teaching experience.

For the study, qualitative interviews were conducted with the aim of creating, as far as possible, the most natural conversational situation in order to give the respondent scope for a high degree of narrative input (Flick 2014). This relative openness was intended to prevent, as far as possible, researchers structuring the interviewees' perspectives through potential prior assumptions. As a starting point, the set interview questions invited the interviewee to describe a piece of her own documentation which she felt had been successful. Over the course of the interview, questions were asked about the resources available for, and the barriers to, carrying out pedagogical documentation. Another consistent component in the interviews involved questions about the task or function of pedagogical documentation, as well as the role

of documentation within the respondent's working day. All interviewees referred to learning stories when asked about documentation. In learning stories, examples of situations in which the children act or interact are selected, described and interpreted. Typically, they are written as a personal letter to an individual child and serve as a basis for joint reflections with the child and its family. In all the ECE centres involved in the study, portfolios are employed in order to collect learning stories and other documents of the children's lives.

The interviews lasted between 45 and 90 minutes; they were recorded digitally and then transcribed verbatim.

### *Data Analysis*

The interviews were analysed according to the principles of Grounded Theory, focusing on constant comparative analysis. The first step was open coding, where individual units of meaning from the interview are assigned content codes from the material (Corbin and Strauss 2015). This open coding makes it possible to foreground the respondent's perspective and develop an analysis which is as open and authentic as possible (Schmidt 2013). This avoids imposing previously defined categories on the material. The aim is to avoid falsifications and misinterpretations. For the analysis presented here, codes relating to documentation strategies were selected and studied in more detail. This involved relating the various codes to one another and either combining them to produce a strategy or differentiating them from one another. This made it possible to identify six documentation strategies altogether.

Table 1: Development of strategies from the codes

<b>Code</b>	<b>Strategy</b>
<ul style="list-style-type: none"><li>• Discussion</li><li>• Documentation as basis for pedagogical decisions</li><li>• Appraisal of children's activities through documentation</li></ul>	Staff discussion
<ul style="list-style-type: none"><li>• How the documentation is organised</li></ul>	Multiple use of documentation
<ul style="list-style-type: none"><li>• Responsibility for documentation</li></ul>	Sharing out children

<ul style="list-style-type: none"> <li>• Observation for documentation</li> <li>• Documentation as motive for observations</li> <li>• Transparency</li> <li>• How the documentation is organised</li> </ul>	Forms of note-taking, standardisation and formalisation
<ul style="list-style-type: none"> <li>• Which situations are documented</li> <li>• How the documentation is organised</li> </ul>	Delimiting particular phases of observation and documentation
• Time for documentation	Supporting one another
<ul style="list-style-type: none"> <li>• How the documentation is organised</li> <li>• Time for documentation</li> </ul>	Setting priorities
<ul style="list-style-type: none"> <li>• Time for documentation</li> <li>• Children's participation</li> </ul>	Parallelisation with supervision of children
<ul style="list-style-type: none"> <li>• Technical infrastructure</li> <li>• Possibilities and problems of digital documentation</li> </ul>	Digitalisation

Here, each of the strategies encompasses several codes and the related passages from the material. Individual codes contribute to several strategies, since the teachers' statements encompass various strategies. The codes remain on a descriptive and formal level, while the strategies are interpretations of the content that could be found within the teacher's statements. For example, the strategy 'Staff discussion' comprises three codes that refer to passages in which the teachers describe how they enter an exchange with their colleagues. In other cases, the statements that were associated with the code 'Time for documentation' all hint at the strategy of mutual support.

Similar to establishing types, the various strategies were differentiated from one another, the aim being to achieve the greatest possible homogeneity within the strategy on the one hand and the greatest possible heterogeneity in relation to the remaining strategies on the other (Kelle and Kluge 2010).

## Findings

In the following section, the objectives of documentation as defined by the teachers are identified. After that, the various strategies the teachers describe using in their documentation work are presented.

### ***Child Orientation as the Common Aim of Documentation***

The analysis of the interviews indicates that the teachers who were interviewed share similar ideas about the objectives of documentation. The emphasis is on identifying the children's interests with the aid of documentation. One teacher, for example, says that it is primarily about 'coming down to the children's level, to eye level, things like that – really seeing what the children want and implementing this together; not always what do we teachers want, but what do the children really want?' Identifying the interests of the child should be used here in order to generate meaningful pedagogical practice, such as is expressed in this statement: 'The main purpose of documentation is following the interests of the children and planning for learning. So, what are we looking at, what are the children interested in and how can we strengthen that learning?' Analysing the children's interests also helps teachers establish reference points for their own work. This process of co-construction can be compared to a ball game: 'We're playing a game of ping pong here. The impetus comes from the child, but it doesn't stay with the child. We catch the ball and throw it back a little higher or lower, perhaps with more momentum, perhaps also imbued with a new idea, and so it keeps on going, back and forth. The children set the pace and direction, even the content. We complement this.'

The process of understanding the child's interests is similar to a process of research which identifies the very essence of the child. The teachers accordingly also see themselves as learners: 'And the notion that as a teacher you're probably more a learner, even more than a teacher. You know, that role of being a learner is huge and you never have all, you never hold all the knowledge.' Ultimately, in this process of research and learning, all participants should ultimately develop themselves and their ability to reflect on development and learning: the children ('for the child to revisit their learning and to see their friends and talk about their experiences, and that's language as well'), the teachers ('Even if we qualified years and years

and years ago, we're still growing and learning about different things and different children'), and also the parents ('so that the parents can see their children's strong points too').

This common basis of the respondents in the two countries is crucial in being able to represent the strategies introduced above. And vice versa: if the aims of the documentation were fundamentally different, it would not be surprising if the documentation strategies were different.

### ***Documentation Strategies***

The interviewed teachers mainly cite time as the primary requisite for working with documentation. It is the basic requirement for the process: 'I think what's always problematic is that whole notion of time. So, what is key for us is that the teachers actually have [...] "professional time" or, like, "teacher research time" to actually engage in documentation.' Time is perceived as necessary to write and create documentation without disturbance, but it is also needed in order to reflect on and analyse situations and to discuss issues with colleagues. As further important requisites, teachers cite, in terms of formal requirements, technical infrastructure and a quiet place to work; and, in terms of content, above all, reflecting on their work together with colleagues, a child-oriented approach focused on the children's strong points, and the ability to tell stories. In relation to the definition of strategies formulated at the outset, these prerequisites for documentation are to be understood as goals the teachers would like to achieve. The following strategies are employed by teachers in order to achieve these goals. These strategies are not mutually exclusive; the teachers typically combine them with one another.

### ***Staff Discussion: People are Resources***

All the respondents describe discussing the events of the day with colleagues as an important component in documentation work. Two main motives can be differentiated here. First, it is about bringing each other up to date and mutually informing one another about im-

portant events, as described in this statement: ‘...sitting down together for a minute and saying, “Goodness me, did you hear what that child said?” Just an exchange of information, really.’ Second, such discussion also helps to increase the informative value and precision of the documentation. One teacher fears that if this discussion did not take place, the documentation would be of lower quality: ‘If you don’t have time to discuss it, I think you get a shallower level of documentation.’ At the same time, the teachers also emphasise the importance of different individuals’ different perspectives, which classify and interpret a child’s behaviour or activity differently. One teacher states: ‘because you’ve got so many different perspectives. Because I think that all teachers have their strengths. But together you get the big picture.’ In addition, the discussion can also help in selecting which events should be documented: ‘...and making those decisions about what you’re going to document and what you’re not going to document, because you can’t actually document everything you see. There’s too many things.’ However, opportunities for discussion differ between the countries: the New Zealand teachers have the opportunity to discuss individual children almost daily during the break when the children are not there, whereas the German teachers often must have this discussion while looking after the children, for example, during snack time together in the morning. Against this background, it is not surprising that the discussions in Germany are regarded primarily as an ‘exchange of information’, whereas in New Zealand they are perceived as ‘support’ and ‘collaboration’.

*Multiple Use of Documentation: ‘...and then at some point it is incorporated into the portfolio.’*

All the interviewed teachers who commented on the multiple use of documentation report that they use previously compiled documentation in various contexts. They primarily describe two variants. First, learning stories are used for several children. This happens when a small group of children has undertaken an activity or a project together. By substituting names, using different photos, and making a few alterations, the same learning story can be

individualised and compiled for several children. Second, the learning stories are used in different ways and places. First, they are temporarily displayed as wall documentation, which has already been produced in A4 format. This document is later filed as a learning story in the child's portfolio file. One teacher, for example, reports that individual learning stories are first of all '[hung up] in the cloakroom area in our kindergarten so that the parents can read it too, and the children see it again and again, and then at some point it is filed in the portfolio.'

*Sharing out the Children: 'We share the children among ourselves in the group'*

In many German institutions, the documentation tasks are shared out in order to ensure an even distribution of tasks among colleagues. The teachers describe a key worker system in which individual teachers are 'responsible' for all the interests of a small group of children, including the documentation, as the following quote shows: 'I have children, for instance, for whom I am responsible, where I'm the key worker and...I will certainly have to write one for them at some point. Well, I also write documentation for other children, if I am able to establish or record any instances of learning where I say, oh, that's an interesting moment, and then I document it. But in principle I write documentation for the children whose development I also discuss with the parents.' This statement also makes clear, however, that this responsibility is handled flexibly, and that it is indeed possible to compile additional documentation. In contrast to the idea of assigning children to individual teachers, all the New Zealand teachers who commented on this topic prefer to see themselves as responsible for all the children. Particularly against the background of the discussions described above and the incorporation of the different perspectives facilitated by these, it seems to make sense for the teachers collectively to look at the children in a group.

*Forms of Note-Taking, Standardisation and Formalisation: 'In our portfolio, a lot of the written work is done in advance'*

Three of the interviewed teachers report that they have developed a particular method by which they make systematic notes, take photographs, and compile documentation. In two

institutions in Germany, teachers have worked together to develop forms to facilitate this system: ‘Every morning, it [the printed form] is given to the group along with the clipboard, so we can note down a detailed observation at any point – it is ready to hand, so we don’t have to look for it first [...] and then if we happen to see a great situation with a child, we can get started straight away, sit down with, and observe, the child.’ As regards later documentation – whether this is a learning story or wall documentation – the respondents describe developing templates so that they can quickly merge photos and text into documentation without having to re-create the layout each time. Other teachers have come up with an individual system that allows them to retain an overview and perhaps even to better identify patterns of behaviour in the children. ‘And [...] I always have a list of the children who I have. I’ve got an excel-spreadsheet. So, I have the children who I am responsible for, then month, and then I’ll put the main focus of the topic that I wrote about for that month. So, say, one child was interested in transport and I’ll note that down, and that way, when I’m writing my March one, if it’s transport again, I’ll see that there’s a pattern, and that way I can track what the interests are. And then if I find that I’m writing for 4 or 5 on the same topic, I’ll go, ok, there is certainly planning; this is what the main focus of interest is about.’ Six teachers also describe a formal method for the production of portfolio entries; here, they use the same entry for several children, or they use text blocks: ‘Considering how little time we have, this also, of course, reduces our workload [...] we realised we had to find an efficient solution so that we would not have to keep describing recurrent things over and over again.’

*Delimiting Particular Phases of Observation and Documentation: ‘So, I select a particular period of time’*

Another possible way of handling the documentation work is to define particular phases of documentation. For example, five of the respondents describe how they set particular periods for observation, writing learning stories, and compiling wall documentation. These

can either be phases of work in which all the teachers are involved, such as in the ‘documentation weeks’ at the end of the ECE centre’s academic year, or the activities of individual children which are purposefully observed and documented in preparation for a parent-teacher consultation, in order to have a basis for the discussion, as this quotation shows: ‘So, I select a particular period of time, where I say, I’d like to observe the child during this period. Yes, in this week, or I know that there will be parent-teacher consultations in that week, so I have to do it three or four weeks before that. Exactly, so then I just have to observe a bit more closely, and then I go around with a camera and paper.’ Others in turn describe how they define a particular output: ‘We observe the child, or our aim is to write a learning story once a year – this is a stipulation by our ECE centre – and document the learning.’ It is exclusively German teachers who report using this strategy of documentation phases.

*Supporting One Another: ‘they might just let each other know that they really want to get some of the stuff worked on’*

With all the respondents feeling that they fundamentally lack time, they all describe making arrangements with their colleagues so that they can build shorter phases of documentation into their working day. Making these mutual arrangements in this way enables spontaneous phases of work, as this teacher describes: ‘If I say I have to really concentrate now because I want to write it up properly, then I arrange it with my colleagues and I go out quickly. Nobody minds, because we all have the right to do it.’ This involves choosing phases during which fewer teachers are needed; in the afternoon, for example, when fewer children are there, younger children are having their afternoon nap, or the children are having free play outside. Here too, cooperation between colleagues is an important resource.

*Parallelisation with Supervision of Children: ‘This is how it was integrated into our daily work’*

As well as describing documentation as solitary, quiet work, all the respondents describe how they supervise and document the children in parallel. Just as discussions about observation and documentation sometimes take place in the presence of children (see above), the teachers also carry out documentation work during supervision time. They sometimes do this together with the children in order to motivate them to participate: ‘Exactly, it’s also about organising your time with the children, not just without them, and – as I said – they like it when they’re allowed to get involved.’ However, the respondents describe different abilities and needs among the teachers: some find it easy to carry out documentation work surrounded by children (‘I personally don’t mind’); others need a place to retreat to, or they are involved in work during which parallelisation is not possible, as in this example: ‘We both work in a studio, and the work with individual children is very intensive. So, you can’t, for example, say you’re going to sit down at the computer in the morning and do the documentation for something. It doesn’t work. Working in a studio simply does not allow this, because we often care for children on a one-to-one basis.’ The respondents describe the availability of a computer as an additional requisite for documentation. Parallelisation is therefore a possible strategy, but it is not possible for everyone, and not at all times.

*Setting Priorities: ‘not fussing around with “prettifying” everything’*

The interviewed teachers all work in institutions which place great emphasis on documentation (see section about methods). This prioritisation of documentation is successful mainly because other tasks are set aside or left out altogether. In a narrower sense, this applies to the documentation itself, which is not ‘prettified’ with purely decorative elements, which requires an investment of work time. This reduction, however, is not understood simply as leaving something out, but rather as a concentration on what is most essential. One teacher, for example, says: ‘You have a different sense of aesthetics. Because you’re just used to straightness. So, now I was in a different kindergarten, and they used documentation too. And there, this one was green and the other one was blue, and the pictures were stuck over them at

an angle. But there were good intentions behind it. I felt so overwhelmed. This disorder is so unsettling. The layout, the form is important too.' Priorities are not only set for documentation itself, however, but also for the activities in the institution. One teacher sums it up thus: 'it is about managing what you can do and being realistic about what you can do.' In concrete terms this means that particular activities which previously had a role to play simply do not take place anymore. One teacher explains that this is because of the child-oriented approach, which is expressed through observation and documentation: 'We follow the interests of the children, which we have identified through these observations, and then we work with the children, rather than – as we used to do – just making 100 snowmen or angels, or whatever. This gets left out – we don't need it anymore.'

*Digitalisation: 'I could work on my iPad and write that story and send it to the printer and carry on.'*

Digital tools continue to play an important role and are crucial for documentation. In terms of the purely practical level of infrastructure, this means, in particular, the sufficient availability of computers: 'What is really great here is that for every group we have here, we have a laptop which I can plug in, so I don't have to say I'm leaving the group so I can write the documentation – I just do it in the group area.' A New Zealand respondent has a similar view: 'So, when there is a quiet moment they get to do something like that, yeah. Probably the most important resource at the moment, I guess, is having our laptops. Having the laptops accessible, because they need this.' The German respondents in particular also talk about the possibility of printing photos or learning stories with photos, but because of the high cost involved (in comparison with copies ordered at health and beauty retailers, for example), this is often not possible. In addition to hardware, however, the New Zealand respondents also describe using software as an important strategy for documentation. The platforms for uploading

learning stories – widespread in New Zealand – have helped to promote communication between teachers and parents, and this is felt to be important: ‘That did make the response in the cycle of learning much deeper.’

## **Discussion**

All of the interviewed teachers feel they are under considerable time pressure to complete documentation work in the ECE centres. This might be surprising, as the respondents’ actual time allocations for documentation vary considerably, from two hours per day, to one hour per week, through to no set time allocated at all. Documentation is clearly a task that can never be completed in full and is seen as never-ending. In addition, time spent with documentation is often perceived as competing with time spent with children (Kroeger and Cardy 2006; Löfgren 2014; Viernickel et al 2013) This explains why the majority of strategies identified within the interviews relate to creating time slots for documentation or to structuring the documentation work in such a way that it is manageable for the teachers.

Despite the perceived lack of time among all the respondents, contrasting Germany and New Zealand makes it possible to identify patterns, for example sharing out the responsibility for the documentation of individual children, and delimiting phases in Germany. These strategies help to deal with the problem of insufficient time by delimiting and reducing the documentation. This delimitation is formal and related to the organisation of documentation. On the other hand, it would also be possible to delimit the documentation in terms of content, for example by clearly defining what should and should not be documented. At the same time, formal delimitation also has implications for content: if particular observation periods are set, then what is documented is what happens during this set period. This does not necessarily coincide with what is important to the children. On the other hand, this is counteracted if it is precisely this orientation towards the interests of the children that is the priority of the docu-

mentation, as the teachers emphasise (see above). Moreover, even the double use of documentation as wall documentation and portfolio entry, or for several children, has its down sides: a text printed on A4 in font size 12 does not achieve the same effect and response as a nicely designed poster; a learning story intended to be suitable for several children cannot capture the individual learning processes to the same degree as a learning story focused on an individual child and the learning dispositions represented.

It is possible to identify the two most frequent strategies used by the New Zealand teachers: staff discussion and the use of specific documentation software and digital platforms. Both strategies primarily serve to communicate the documentation, both to other teachers (discussion strategy) and to parents (digitalisation strategy). The common aim of these strategies is to produce meaningful and effective forms of documentation; the emphasis is clearly therefore on content objectives here.

Overall, this study highlights the profound influence the organisational framework conditions have on pedagogical practice. The presence or absence of particular resources (time, opportunities for discussion, computer, documentation software, digital platforms) determines which strategies are – or can be – applied. The study indicates that the teachers from Germany find it considerably more difficult to set aside time for documentation, which is why they place emphasis on developing strategies which create time for documentation. Making the effort to create time slots takes up much of the energy required for documentation, with the result that, for example, there are barely any resources available for further consolidating the informative value and effect of documentation through internal discussions and tailored interaction with parents. This might lead to the assumption that the quality of the teaching is significantly influenced by the structures and the input.

What do these results mean for the practice? A meaningful conclusion is to shift the focus even more to the organisational framework. If documentation should be improved, then appropriate resources must be available. Comprehensive knowledge and the skills of skilled

workers alone are not enough, but also the time, the technical equipment and the opportunities for exchange to apply them.

However, the present study has some limitations. Due primarily to the qualitative approach and the related low number of cases included in the study, the results are not generalisable. The results are also limited by the selection of interviewees from institutions which carry out particularly intensive and high-quality documentation. We may assume, however, that for teachers in institutions which place less importance on documentation, organisational questions have significantly more impact on documentation, as documentation is not given any priority. In other words, if organisational obstacles already exist in institutions which document willingly and well, then these obstacles might be considerably greater and have more serious consequences in other institutions.

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