Assessment and Documentation Methods
In Early Childhood Education

Okul Öncesi Eğitimde
Değerlendirme ve Dokümantasyon

Nur Alaçam[a1]

ᵃ*Ondokuz Mayıs University, Samsun, Türkiye*

Abstract

Assessment and documentation are indispensable components for ensuring high-quality learning environments in early childhood education. This study aimed to investigate the assessment and documentation methods used by early childhood education teachers in Türkiye and the United States. A total of 24 teachers from both Reggio Emilia-inspired preschools and university-affiliated preschools participated in the study. Data were collected by means of both interview and survey. As a result, it was found that observation, portfolio, and developmental assessment reports were commonly practiced assessment methodologies within each country. In contrast, rating scale, rubric, and audio-video recording were found to be the least frequently used ones. Additionally, in both countries, it was determined that all teachers utilized documentation methods including photos and anecdotal notes as well as commonly created daily and weekly news, monthly newsletters, and/or wall documentations. Accordingly, the results indicated the profound influence of national curriculum or guidelines on the practices.

Keywords: Early childhood education, assessment, documentation, pedagogical documentation.

Öz

Değerlendirme ve dokümantasyon, erken çocukluk eğitiminde nitelikli öğrenme ortamı sağlanması için vazgeçilmez bileşenlerden bir tanesidir. Bu çalışmada, Türkiye ve Amerika Birleşik Devletleri'nde katılımcı okul öncesi eğitim kurumlarındaki öğretmenlerin kullandıkları değerlendirme ve dokümantasyon yöntemlerini araştırmak amaçlanmıştır. Çalışmaya Reggio Emilia'dan ilham alan anaokullarından ve üniversiteye bağlı anaokullarından toplam 24 öğretmen katılmıştır. Veriler hem görüşme hem de anket yoluyla toplanmıştır. Sonuç olarak gözlem, portfolyo ve gelişimsel değerlendirme raporlarının her iki ülkede yaygın olarak uygulanan değerlendirme yöntemleri olduğuna ulaşılmıştır. Buna karşılık derecelendirme ölçeği, dereceli puanlama anahtarı ve ses-görüntü kaydının en az kullanılan yöntemler olduğu tespit edilmiştir. Ayrıca her iki ülkede de tüm öğretmenlerin fotoğraf ve anekdot notlarının yanı sıra ortak oluşturulan günlük ve haftalık haberler, aylık bültenler ve/veya duvar dokümantasyonu gibi dokümantasyon yöntemlerinden yararlandıkları belirlenmiştir. Buna göre sonuçlar, ulusal müfredat veya yönergelerin uygulamalar üzerindeki etkisine işaret etmektedir.

Anahtar Kelimeler: Okul öncesi eğitim, değerlendirme, dokümantasyon, pedagojik dokümantasyon.

1. Introduction

There is an increased attention given on early childhood education in many countries in the last decades, and this has encouraged to document educational processes of children in different ways (Knauf, 2020). The underlying theoretical perspective of this desire is based on the idea that knowledge is constructed by and mediated through different processes (Vygotsky, 1978). At this point, assessment might be crucial to provide appropriate level of guidance for child learning because it guides the curriculum practices for supporting each child (Becker et al.,

2022). Thus, assessment is an extremely important component on the quality of early childhood education (Ahtiainen et al., 2021). In addition to assessment, documentation has also an important role for qualified early childhood education and professional development in this field (European Commission, 2014; OECD, 2011). It enables teachers to develop themselves as well as contribute to the child development and communication between children, teachers, and families (Kuru & Akman, 2019). It was integrated into educational plans and curriculums as a quality index in different countries such as Finland and New Zealand (Carr & Lee, 2012; Rintakorpi, 2016). However, both cultural and policy context can have an impact on documentation practices and the purpose in usage of them (Lee-Hammond & Bjervas, 2021). Therefore, investigation of assessment and documentation practices in different countries might contribute to the literature about utilization of assessment and documentation methods for different purposes.

In the present research, it was aimed to examine the assessment and documentation practices of early childhood teachers in Türkiye and the United States. These locations were selected to provide a comparison between educators from these two different cultural and policy contexts. To explain, there are both similarities and differences between early childhood education system of Türkiye and the United States. In both countries, early childhood centers are run by either public or private institutions. It is mainly aimed to help young children to take advantage of learning experiences until the compulsory school age. However, the main difference is that Türkiye has a centralized early childhood education curriculum. Instead, Unites States federal policies allow individual States to make important decisions. In particular, accreditation by National Association for the Education of Young Children (NAEYC) contributes to the early childhood education quality in the United States. Many states utilized from its guidelines in making their educational decisions. This provides opportunities for developmentally appropriate curriculum and assessment (OECD, 2003). For instance, recently revised recommendations for developmentally appropriate practices (NAEYC, 2022) encourage assessment methods which reflect child's whole development. On the other hand, in Türkiye, assessment is investigated in terms of three aspects of the curriculum: assessment of child, teacher, and the program. Child Development Observation Form is used to document child development by presenting child abilities and accomplishments. Child Development Report is also used to summarize child development in each developmental area at the end of each semester. Furthermore, preparation of portfolio folders for each child is a requirement in the curriculum (MoNE, 2013).

This research study was conducted in two different types of preschools in the previously mentioned countries. One of them is based on Reggio Emilia philosophy which integrates documentation into teaching and learning process (Rinaldi, 2012). Teachers are trained and have experience regarding the use of documentation in classrooms and use it for different purposes in this philosophy (Gandini, 1993). Another preschool is the university affiliated preschool which has a child-centered educational philosophy and gives importance to assessment and documentation in their curriculum. In these both types of preschools, assessment practices align with developmentally appropriate practices. Investigating assessment and documentation methods in these two sophisticated differing contexts in two different countries can provide information and implications to the international literature about the assessment and documentation practices. Accordingly, in this study, findings also present indications whether education policies shape early childhood teachers' assessment and documentation practices in these countries.

1.1. Assessment in early childhood education

Assessment in early childhood education is the process of gathering, organizing, and interpreting information about the children (McAfee et al., 2004). It is primarily used to understand children's individual progress (Becker et al., 2022), decide their developmental level as well as monitor their progress and change in the process (McAfee et al., 2016). Moreover, it is also used to support teaching and learning, identify special needs of children, and evaluate education programs (Meisels & Atkins-Burnett, 2006; Shepard et al., 1998). There are a variety of assessment techniques used in early childhood education and combining them best presents a child's learning and development (VanTassel-Baska, 2013). To detail, although formative assessment is implemented through children's educational experiences, summative assessment is practiced at the end and provides a summary of student achievement (Dubiel, 2014; Fyfe, 2012; Shermis & Di Vesta, 2011). To illustrate, standardized test is one of these methods. There are certain instructions for the administration of standardized tests (Morrison, 2014), which provide uniformity in administration in addition to enabling valid and reliable quantifiable scores. However, they should only be considered a snapshot of children's abilities because they only provide one aspect of information regarding children's capabilities (McAfee et al., 2016; Wortham & Hardin, 2016). In contrast, in informal assessment, different methods are used to get information about children rather than the usage of standardized tests. Thus, informal assessment enables the assessment of children's progress as well as allows for

following their progress through experiences. In preschool education, different informal assessment methods are used like observation, rating scale, checklist, and portfolio. Observation means systematically examining child behaviors in certain settings or situations (Morrison, 2014). It is important for developmentally appropriate assessment by providing to follow each individual child (Becker et al., 2022; Gronlund & James, 2013). There are different types of observation including anecdotal, running and specimen records, time and event sampling, rating scales, and checklists (Saracho, 2015; Wortham & Hardin, 2016). In addition to these, as a form of comprehensive assessment, portfolios also include child work collection and teacher data from different assessments to assess child development and learning (Wortham & Hardin, 2016). Those present child activity documents in process in an organized way to serve its assessment purpose (Alaçam et al., 2023). In relation to these points, it has been advised that assessment should be a continuous process in classrooms as well as teachers should use multiple forms of assessment (DeLuca et al., 2019; Pyle et al., 2020). The focus should be reaching individual child potential in assessment as suggested by NAEYC (2022).

1.2. Documentation in early childhood education

To define, documentation is the practice of observing, recording, interpreting, and sharing the processes and products of learning in order to deepen and extend learning through a variety of media (Krechevsky et al., 2013). Teachers can contribute to children's learning in the documentation process (Helm et al., 2007) because documentation enables to observe, interact and understand more fully who they are (Stacey, 2019). This helps a teacher to understand each child more deeply and as a result, provides more individualized support (Becker et al., 2022). In this way, it informs their teaching as well as helps teachers' planning of educational experiences and allows them to respond more accurately to children's needs. Moreover, documentation is also used to share children's learning with their families (LeeKeenan & Ponte, 2018) because it allows teachers to demonstrate how developmentally appropriate teaching provides greater learning opportunities for children. As a consequence, documentation fosters a relationship between school and home (Helm et al., 2007), contributes to parents' awareness about the experiences of their children (Morrison, 2007), and makes learning in general more transparent (Guyevsky, 2005). This enables the entire community to engage in the children's learning (Becker et al., 2022). Additionally, documentation sharing with children helps them to understand that their creation and learning is important and meaningful. Thus, they feel understood and appreciated (Rinaldi, 2012).

There is a shift from documentation to participative pedagogical documentation (Lindh & Mansikka, 2023). 'Pedagogical documentation is a process for making pedagogical (or other) work visible and subject to dialogue, interpretation, contestation and transformation' (Dahlberg et al., 2007, p. 225). It has been focused on in a variety of research studies (e.g., Alaçam & Olgan, 2021; Buldu et al., 2018; Knauf, 2020; Lee-Hammond & Bjervas, 2021; Reynolds & Duff, 2016; Rintakorpi, 2016). For instance, it has been found that pedagogical documentation is used to present growth, encourage further ideas, and facilitate interaction (Hostyn et al., 2020). It supports children's individual development and interpersonal skills. Moreover, it also contributes to their active involvement in learning and assessment process (Buldu et al., 2018). However, culture and policy contexts have also impacted the conception of pedagogical documentation (Lee-Hammond & Bjervas, 2021). To illustrate, early childhood education teachers need knowledge and field experience about it in Türkiye (Yılmaz et al., 2020). Furthermore, in a comprehensive study by Alvestad and Sheridan (2015), they found that there are different types of documentations which change according to the practice purpose. For instance, documentation mainly presents information to parents about their children's preschool activities. Furthermore, it can be used as a vehicle for learning by the teachers. In particular, teachers practice photo documentation to reflect and improve their practices. Although it was found that there is a relationship between planning and documentation process, documentation was found to mainly focusing on teachers' planning than the learning process of children. On the other side, Knauf (2020) presented that teachers use strategies for saving time in documentation process and dealing with the possible challenges. In order to deal with any issues related to documentation, teachers mentioned defining specific phases of documentation to occur at particular times as well as emphasized setting priorities along with significance of digital tools. To sum up, there is a growing literature on the assessment and documentation, and early childhood teachers' assessment and documentation methods were focused on in the present study to contribute to the literature by making investigation in two different sites.

1.3. Current study

As presented in the above definitions, assessment and documentation are intertwined terms with each other. In other words, both complements each other since documentation is a part of authentic assessment cycle which is

the process of learning about child capabilities (Seitz, 2023). In particular, pedagogical documentation has a participative nature (Dahlberg et al., 2007), which enables to use it for a variety of purposes including presenting child progress or improving the practice (Alvestad & Sheridan, 2015). Accordingly, it can be concluded that documentations can be used for assessment purposes. In particular, it can be used for performance-based authentic assessment (Damjanovic & Blank, 2018), yet this depends on the teachers' purposes and practices on these methods. For instance, although it was found that portfolio is practiced as an assessment method by teachers (Alaçam et al., 2023), it was also introduced as a documentation method in some research studies (Knauf, 2017). Systematic collection in the process is important in portfolio to be able to document child progress (Helm et al., 2007; Wortham & Hardin, 2016). In other words, purpose and practices are important to convert the documentation into pedagogical documentation and assessment. In particular, implementation of pedagogical documentation contributes to interpretation of assessment results for planning learning process (Buldu, 2020). Because of these reasons, in the present study, it was focused on both assessment and documentation practices together. Findings were presented based on teachers' reporting of the assessment and documentation methods as well as pointing out their purpose in usage of them. Therefore, this research contributes to the literature by presenting indications about the teachers' conceptualization and practices of assessment and documentation methods in two different types of preschools in Türkiye and the United States. Since the policy and cultural contexts were supported to be affective on practices (Lee-Hammond & Bjervas, 2021), investigation in these two different contexts will contribute to the literature by presenting practices from these two contexts.

2. Method

2.1. Purpose and research method of the study

It was aimed to examine the assessment and documentation methods used by early childhood education teachers from the participating preschools in both Türkiye and the United States in this study. It was designed as mixed-method research. This design enabled to compare and interpret the qualitative and quantitative findings together (Creswell & Plano Clark, 2018) to answer the research question of 'What are the assessment and documentation methods used by early childhood education teachers at the participating preschools in Türkiye and the United States?' As having a comparative purpose on practices between these two countries, this research has also a cross-cultural side.

2.2. Participants

For answering the research question, the use of purposive sampling was integrated to select the participants. Purposeful sampling provides choosing the participants who are suitable to collect the intended data in the research study (Fraenkel et al., 2018). For instance, the research data were collected in the Reggio Emilia-inspired preschools and university-affiliated preschools in Türkiye and the United States in the present research study. In Reggio Emilia approach, documentation is viewed as an attitude for teaching and learning (Rinaldi 2005; Turner & Wilson, 2010) because educators use it for fulfilling their roles in the classroom (Fawcett & Hay, 2004) like knowing the children (Rinaldi, 2004). Moreover, the participant university preschools had also child-centered education philosophy, and documentation was integrated into their classrooms.

Importantly, in both types of participant preschools, assessment and documentation had already been integrated into the curriculum. The researcher had also knowledge on these settings from previous research study (Alaçam et al., 2023). Randomly, six volunteer teachers were selected as participants from each setting, and a total of 24 teachers participated in the study from two preschools in Türkiye and two preschools in the United States. Most participants were female ($N = 23$) and had a bachelor's degree ($N = 15$) in early childhood education. Moreover, most of them took an assessment course ($N= 21$) as well as all participating teachers had assistant teachers within their classrooms.

2.3. Data collection tools

To collect the research data, a demographic information form was utilized to collect information about the teacher demographics. Then, face-to-face semi-structured individual interviews were conducted with the early childhood teachers along with an assessment methods survey. In semi-structed interviews, there were both more-and less-structured questions (Merriam, 2009), and it was aimed to examine participant teachers' assessment and documentation methods and the purpose in usage of them. Therefore, interview questions were based on both

assessment and documentation themes. Also, a survey was used to investigate the frequency of a variety of assessment methods' usage. It was developed by the researcher as a 5-point Likert type rating scale by ranging from Never (1) to Always (5). Survey items addressed to different assessment methods such as checklist, observation, and rating scale. In the process of its development, initially, an item pool was created based on the literature review. Then, expert opinions related to the interview questions and the developed survey were sought from three different university professors in the early childhood education field in both Türkiye and the United States. After that, two pilot cognitive interviews were also conducted with teachers in both countries to finalize the data collection tools. In the cognitive interviews, it was requested from participants to think aloud while answering the questions and tell everything about what they are thinking (Collins, 2003; Drennan, 2003). After cognitive interview, some minor changes were conducted on some items or interview questions for clarification, and it was determined to use the prepared interviews and survey questions in their current form.

2.4. Data collection and analysis

Before the data collection process, required approvals were taken from university ethical committees in both Türkiye and the Unites States. Then, after taking permission from also all the participant teachers, face to face interviews were conducted and audio recorded, which lasted between 20 and 25 minutes. Additionally, the general assessment methods scale was provided to the teachers during the interview session, and these were returned on a specific date following their completion. This data collection process began in the United States and completed in Türkiye.

Importantly, survey results were analyzed using descriptive statistics in the SPSS. Then, all the audio-recorded interviews were transcribed by the researcher in its conducted language. Names and personal information of participating teachers were removed from the transcripts, and pseudonyms were used while reporting the study results. During analysis, thematic analysis was used (Braun & Clarke, 2006), which was a content-based coding on research questions (Saldana, 2016). As a result, findings were organized around two main themes as intended in the research questions, which are assessment methods and documentation methods. Findings were presented under the subtitle of these themes below as well as summarized in the Table 1.

Table 1
Summary of key interview findings of the study

Main themes	Codes
Assessment methods	Portfolio
	Developmental assessment report
	Monthly observation report
	Checklist
	Tests
Documentation methods	Anecdotal notes
	Photos
	Wall documentations
	Newsletters

Furthermore, for trustworthiness, different strategies were employed. To illustrate, peer review enabled an external check (Creswell, 2007). To this end, one researcher from early childhood education field participated in the peer review process and became an external coder. Importantly, Miles and Huberman (1994) suggested reaching at least 80% agreement in the intercoder reliability. In the current study, 95% agreement was reached, which supported that intercoder reliability was ensured. In the following sections, participant teachers were coded with T by the assigned number. For example, T-8 refers to teacher number 8.

3. Findings

3.1. Assessment methods

As an assessment method, all the teachers in Türkiye (*N*=12) stated that they use portfolios, developmental assessment reports, and monthly observation reports. To explain, the use of portfolios was mentioned as the most comprehensive type of assessment because it covered most of the other methods and child activity documents to

follow child development in process. Moreover, in their monthly observation reports, the teachers wrote about the children's development for each month as a means of following and tracking improvement. Importantly, these were mentioned as helpful in writing developmental assessment reports, which are written at the end of each semester and include suggestions of teachers regarding child development. These are also shared with families together with their portfolios. Therefore, 'Assessment methods are integrated and complement each other' (T-1). In addition to these, all the teachers in the Turkish university-affiliated preschool (*N*=6) highlighted their use of tests and checklists. Although, the tests were implemented by a school psychologist during specified periods, the teachers completed checklists at the beginning and end of each semester with respect to their anecdotal records. They assess children's attainment of objectives and indicators through items in these checklists.

Whereas in the United States, all the teachers (*N*=12) explained how they utilized portfolios and developmental assessment reports, which they referred to as a conference summary sheet. To explain, the portfolio system used was adapted from the work sampling system, and it was stated that 'Portfolio use is a way for us to follow the kids' development' (T-13) in the Reggio Emilia-inspired preschool. Importantly, all the teachers viewed the conference summary report as a critical component of providing parents an understanding of what their children are accomplishing through a two-page document. Also, the teachers in both preschools who worked with 4K kids (i.e., four-year-old kindergarten children in Unites States) (*N*=4) mentioned the usage of various standardized tests due to the school district's expectation to use them. For instance, it was required that they use PALS (phonological awareness assessment) and report cards (comprehensive assessment of 4K students' development according to a whole separate book of criteria). Furthermore, Reggio Emilia-inspired preschool teachers (*N*=6) pointed out that checklists were one of their means of assessment. The use of a checklist helps teachers to better understand where their students are developmentally as well as to recognize where the children are in their requisite skills.

In addition to interviews, survey was also carried out with the aim of investigating and comparing the assessment methods used by participant early childhood preschool teachers in Türkiye and the United States (See Table 2).

Table 2

Descriptive statistics of assessment methods survey for Türkiye and the Unites States

		Türkiye		United States	
	N	Mean	Std. Deviation	Mean	Std. Deviation
1. Checklist	12	4.33	1.231	3.50	1.087
2. Rating scale	12	3.50	1.446	1.33	0.651
3. Rubric	12	2.83	1.193	2.58	1.730
4. Development Observation Form (State required form)	12	4.83	0.577	2.58	1.730
5. Development report (School required form)	12	4.83	0.577	4.00	1.477
6. Portfolio	12	5.00	.000	4.67	0.651
7. Observation, observation notes	12	5.00	.000	4.92	0.289
8. Individual meetings, interviews	12	4.83	0.577	3.08	1.564
9. Assessment questions	12	4.92	0.289	2.33	1.303
10. Audio-video record	12	2.50	1.679	2.75	1.545
11. Poster, exhibition, photo	12	4.67	0.651	4.25	1.055
12. Project	12	4.50	0.798	3.50	1.000
13. Concept map	12	4.42	0.900	1.92	1.240
14. Worksheet	12	4.92	0.289	1.00	.000
15. Art activity examples	12	4.92	0.289	4.42	0.669
16. Language activity examples	12	4.42	1.165	4.75	0.452
17. Math/science activity examples	12	4.67	0.492	4.67	0.492
18. Social activity examples	12	4.58	0.669	4.75	0.452
19. Physical activity examples	12	4.08	1.564	4.75	0.452
20. Standard tests	12	4.00	1.651	1.25	0.622

It was shown in the results that observation and portfolio were the most frequently used assessment methods in both countries. In contrast, the use of a rating scale, rubric, and/or audio-video record were found to be the least frequently used forms of assessment. Moreover, although worksheets, assessment questions, and developmental observation forms were frequently used assessments methods in Türkiye, these were one of the least frequently used assessment methods used in the United States.

When the item mean values were analyzed for Türkiye specifically, it was determined that portfolio, observation, assessment questions, worksheet, art activity examples, development observation form, development report, and interviews were the most frequently used assessment methods among those used in both preschools. Whereas the less frequently preferred assessment methods were audio-video record, rubric, and rating scale. On the other hand, in terms of the United States, in both preschools, the most frequently used assessment methods were observation, activity examples, and portfolio. Additionally, the least frequently used assessment methods were worksheet, standard tests, rating scale, concept map, assessment questions, rubric, development observation form, and audio-video records.

3.2. Documentation methods

In both countries, all the teachers mentioned photos and anecdotal notes as tools for documentation. Regarding these documentation tools, some teachers (*N*=5) expressed 'consistently taking notes in their notebook throughout the semester' (T-4, T-15, T-24) as a means of organizing their notes together and also observing different aspects of the children's development. Photos were also frequently taken because of usage in various types of documentation and assessment. In relation to these comments, teachers also explained that data are collected for each child by means of notes which are often illustrated with the photos they have taken. For instance, it was stated, 'We always have a piece of paper and pen in hand. We are writing down what we see or something that is interesting to us, something unusual' (T-17). 'Sometimes, if we have a photograph of two children working together, afterwards, I will ask one of them to come over and tell me about what was happening in the picture' (T-20). Moreover, if there is a concern about the child, detailed notes are made discussing what was observed (T-2).

Next, participating teachers mentioned different documentation methods. For instance, in the Reggio Emilia-inspired preschool in Türkiye, all the teachers (*N*=6) emphasized their wall documentation practice, which consists of classroom activities. On the other hand, in the university-affiliated preschool in Türkiye, monthly newsletters were pointed out by the teachers (*N*=6) as another form of documentation. In their newsletters, the students' monthly activities are explained along with photos and notes to inform parents about each month's specified activities.

On the other hand, in the United States, all the teachers (*N*=12) highlighted their use of daily documentation, weekly newsletters, and wall documentation. Daily documentation was stated as a documentation method used by the teachers as a means of informing the parents about what was going on in the classroom each day. For instance, one teacher in the university-affiliated preschool explained her practice, 'Every day we write a letter home, it is just quick, that is like three highlights from our day, and then we do three questions to spark conversation with their families' (T-23). Regarding the daily documentation, Reggio Emilia-inspired preschool teachers also send photos of what the children do in class. In this way, parents know what is happening. Furthermore, weekly documentation is about the entire class, but it also becomes a guide for working with individual students as well. The focus of weekly newsletters is to report on what was accomplished throughout the week by the entire class and usually took just one page. For example, one of the teachers in the Reggio Emilia-inspired preschool pointed out, 'In the weekly documentation, we always put the teacher voice, child voice, and parent voice. We are also printing it for the kids because they like to look at the picture and reflect on it even if they do not know how to read' (T-13). Moreover, the 'Big picture of what is going on in the class is also exhibited in the wall documentations at school, and small projects are presented on the classroom wall documentation' (T-18). Finally, in the university-affiliated preschool, the monthly newsletter was indicated as presenting what is going on during that month as well as what to expect in the upcoming month. As a result, these include both information and photos for parents such as things like sharing links of articles for them to read.

4.   Discussion and conclusion

It was found in this study that the assessment methodologies used by early childhood teachers were similar within the same country as well as reflected the requirements of the curriculum and/or administrative guidelines. To explain, portfolio assessment and development reports were found as common assessment methods in both Türkiye and the United States. These two assessments are required part of the curriculum in Türkiye as well as are recommended in the guidelines of participant preschools in the United States. This can be interpreted as those requirements being affective on the assessment choices of schools and/or teachers as supported in the literature (McKenna, 2005). Similarly, documentation practices are also guided by the context in terms of what is documented and how is documented (Chng et al., 2022) since policies influence these practices (Bradbury, 2018).

Therefore, it is recommended to provide detailed guidelines as well as give considerable importance to assessment and documentation within the curriculum of early childhood teachers as a means of supporting their practices.

Moreover, according to survey findings, observation was found to be one of the most frequently used assessment methods in both of the study countries, which is in line with the literature (e.g., Brown & Rolfe, 2005; Hanes, 2009). The probable reason for this finding is that observation is an authentic way to learn about child knowledge and abilities (Morrison, 2014). Since the young children cannot express themselves well, observation is helpful to learn about children's characteristics and learning (Wortham & Hardin, 2016). However, when we look at the interview findings regarding assessment methods, observation was not mentioned. On the other hand, the teachers frequently mentioned developmental summary reports and portfolios as preferred assessment methods, which they prepared based upon documentation of their observations. Another example is that the anecdotal note is a form of observation recording (Wortham & Hardin, 2016). This was reported as a practiced documentation method by all the teachers in this study. All these findings indicate that teachers use observation by combining it with other assessment and documentation methods (Birbili & Myrovali, 2020). In relation to this, in the literature, it was suggested for teachers to plan what to observe, how to observe, and how to record their observations (Helm et al., 2007). Accordingly, it can be concluded that observation and documentation complement each other since documentation begins with the observation (Stacey, 2015). Therefore, teachers are suggested to systemize their observation skills as well as integrate them with the documentation methods they use. In this way, documentation becomes an assessment tool to understand children and develop the curriculum (Bowne et al., 2010).

Findings also showed that standardized tests are preferred less frequently in comparison to alternative assessment methods in the participant preschools. One of the probable reasons is that those have specific procedures and instructions for administration (Morrison, 2014). Therefore, it is necessary to be trained about how to practice and interpret them. However, despite some limitations, those are useful to measure child characteristics for especially children with special needs. For instance, trained individual can apply screening and diagnostic tests when needed to support children according to their necessities (McAfee et al., 2016; Wortham & Hardin, 2016). Thus, it might be helpful to support schools in terms of the trainings for the standardized tests. Furthermore, since the participant preschools have child-centered education philosophies, this might also be another reason of why participant preschools integrate informal assessments into their curriculum. Informal assessment is in line with the constructivist approach to teaching and learning (Gullo, 2005) and similar to current study, it was found as the most commonly used method by early childhood teachers in the related literature (Brown & Rolfe, 2005; Rethza & Jamaluddin, 2010). Moreover, it was also supported that pedagogical documentation contributes to children's active involvement in learning and assessment process (Buldu et al., 2018) and therefore, it is intertwined with informal assessment methods.

Furthermore, according to current findings, all the teachers documented children's development and learning through photos and used these resources as a tool for improving their students' learning. The probable reason is that photo documentation was found to be directly linked to learning process of children, and teachers can use it to reflect and improve their practice (Alvestad & Sheridan, 2015). Those can also have an impact on children's memories (Elfström Pettersson, 2015). In addition to photos, it was also found that participating teachers in both Türkiye and the United States used weekly or monthly newsletters to inform the children's parents about classroom activities. It was pointed out by the participating teachers that newsletters might be important part of sustaining communication with families regarding the children's learning and development because those make the process visible for the parents (Picchio et al., 2014). Therefore, documentation contributes to families' involvement in their children's learning process (Kuru & Akman, 2019; Özenç & Yazgın, 2022) as well as contributing to their awareness about their children's learning at school (Aras et al., 2021). In this respect, it is recommended for teachers to keep daily or weekly journals to record their thoughts, think about discussions with families and colleagues, and reflect upon their teaching and lesson plans (Elicker & McMullen, 2013).

In contrast, in the current study, the use of rating scale and rubric were found to be the least frequently used assessment methods for the participating early childhood teachers in both countries investigated. Both methods necessitate judgement about the performance (Nitko & Brookhart, 2007; Wortham & Hardin, 2016). Therefore, these methods provide comprehensive information when combined with other assessment methods (Gullo, 2005). Similarly, multiple forms of documentation provide a full picture of child growth (Seitz, 2023). However, in the present study, audio-video records were also found to be one of the least frequently used methods for the participating early childhood teachers in both countries investigated. In fact, audio-video records enable educators to capture students' performances as authentic evidence of their learning (McAfee et al., 2016) and also allows to revisit and reflect upon child learning (Helm et al., 2007). Nevertheless, the important point is to consider the accessibility of audio-video records for all stakeholders involved such as availability of technological tools to record (i.e., audio recorders, video cameras, computers, etc.). For instance, in relation to e-portfolios, it was

suggested that if there is no continuous access to the e-portfolios, these cannot replace the use of hardcopy portfolios (Hooker, 2019). Similarly, if audio-video recordings are not available for each stakeholder as a means of sharing, then this might create difficulties while sharing the children's development and learning. Therefore, all these findings indicate a necessity of supporting teachers regarding the use of assessment and documentation methods within the teaching process. Moreover, it can also be important to consider teachers' skills and knowledge prior to using these assessment methods.

To conclude, assessment is an important means for exploring child development and learning in addition to understanding what best aids them in the learning process (Smidt, 2015). In particular, multiple assessment types present students' achievement accurately (Butler & McMunn, 2006). This study findings confirmed that early childhood education teachers practice a variety of assessment and documentation methods which complement each other as well as that show similarities of use within and between the different countries being investigated (i.e., Türkiye and the United States). Since national, school district, and administrative requirements were explored as important agents on teachers' assessment and documentation methods in this study, it is suggested to give considerable importance to assessment and documentation methods in curriculum and/or guidelines as well as fully support teachers concerning these types of classroom practices.

Finally, this research study was focused on the assessment and documentation methods used in two different types of preschools in two different countries. As a result, in future studies, this research might be examined in different types of settings and at different grade levels as a way of extending research generalizations, and ultimately the present findings and those in the future can be compared. The number of countries involved might also be increased to provide an even broader image. Moreover, teachers' specific assessment and documentation methods might be investigated in greater detail in future studies to better determine further implications for supporting their method choices as well as provide implications for improving overall the early childhood education assessment system.

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