



Investigation of Pre-Service Teachers' Awareness Regarding Children's Early Literacy

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Abstract

Immediately following birth, children begin to experience stimuli from their surroundings. Some stimuli that children experience introduces them to a world associated with reading and writing. As a result, when children reach preschool, it is beneficial if their teachers have a perspective which focuses on providing an adequate literacy environment; for example, effective use of classroom materials for literacy activities can increase children's interest in reading and writing. Additionally, for teachers to increase their effectiveness in the classroom they should develop a thorough awareness and knowledge of early literacy practices. The aim of the study was to investigate preschool pre-service teachers' levels of awareness and knowledge relating to early literacy skills. The participants for this study were thirty nine (n=39) 4th year undergraduate students studying preschool education in the eastern Anatolian region of Turkey. Research data was collected from participants' responses to a prepared questionnaire survey, then analyzed using content analyses, and later codified into specific categorizes. The results of the study yielded that only less than half of these pre-service teachers heard about the early literacy concept. Additionally, not all the pre-service teachers were able to list early literacy skills and less than 1/3 of them were able to list the main skills including; print and phonological awareness, alphabet knowledge and writing skills. When these pre-service teachers asked to define the relationships between early literacy skills and reading-and-writing, twelve pre-service teachers stated that there was a positive relationship between these terms however, they could not explain the nature of the relationship. Furthermore, a majority of pre-service teachers found their undergraduate training was not adequate to teach early literacy to young children.

Keywords: preschool period, early literacy, pre-school teacher candidates

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Öğretmen Adaylarının Çocuklarda Erken Okuryazarlık Konusu Hakkındaki Farkındalık Düzeylerinin İncelenmesi

Öz

Çocuklar, doğumlarının hemen ardından, çevrelerindeki uyaranlardan etkilenmeye başlarlar. Deneyim yaşadıkları bu uyaranlardan bazıları onları okuma-yazma ile ilişkili bir dünya ile tanıştırır. Dolayısıyla, çocuklar okul öncesi kurumlarına geldiklerinde öğretmenlerinin yeterli ve etkili bir okuryazarlık ortamına dair bir perspektife sahip olmaları önem taşımaktadır. Öğretmenler, örneğin, çocukların okuma yazmaya ilgisini çekmek için sınıftaki materyalleri etkili kullanması gerektiğine dair bir algıya sahip olabilirler. Öğretmenlerin sınıflarında bu konuda başarılı olabilmeleri için erken okuryazarlık uygulamaları hakkında yeterli düzeyde farkındalıkları olmalıdır. Bu çalışmanın amacı öğretmen adaylarının erken okuryazarlık becerileri hakkındaki farkındalıklarını ve bilgi düzeylerini incelemektir. Çalışmanın katılımcıları Türkiye'nin Doğu Anadolu Bölgesi'nde bir Okul Öncesi Bölümü'ne kayıtlı olan son sınıf öğrencilerden (n=39) oluşmaktadır. Çalışmanın verileri katılımcıların yöneltilen sorulara verdikleri cevaplardan oluşmaktadır. Alınan cevaplar içerik analizi yöntemi ile analiz edilmiş ve belirli temalar altında çözümlenmiş ve tartışılmıştır. Çalışmanın bulguları öğretmen adaylarının yarısından azının erken okuryazarlık kavramını duyduklarını göstermektedir. Ayrıca, öğretmen adaylarının tümü erken okuryazarlık becerilerini listeleyememiş sadece üçte biri temel becerilerden olan yazı ve ses-bilgisel farkındalık, alfabe bilgisi ve yazma becerilerini listeleyebilmiştir. Erken okuryazarlık ve okuma-yazma becerileri arasındaki ilişkinin betimlenmesi istendiğinde, on iki öğretmen adayı bu iki kavram arasında pozitif bir ilişkinin olduğunu belirtmiş ancak aralarındaki ilişkiyi tanımlayamamıştır. İlave olarak, öğretmen adaylarının çoğu aldıkları lisans eğitimlerinin erken okuryazarlık becerilerini öğretmede yeterli olmadığını ifade etmiştir.

Anahtar Sözcükler: okul öncesi dönemi, erken okuryazarlık, okul öncesi öğretmen adayları

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Introduction

Children are born with a natural curiosity for discovery. They quickly attempt to recognize and make sense of their environment. Through the maturation process children begin to understand there are multiple ways to interpret the world. The same sense of discovery occurs in early literacy development; starting at birth and continuing through the early years of life (Weikle & Hadadian, 2004). As a result, it is argued that children develop ideas regarding literacy well before they begin school (Peeters, Verhoeven, van Balkom, & de Moor, 2009). Young children do not have to wait until school to be exposed too or learn about reading and writing. Researchers categorize children's early literacy learning into three developmental periods which begin at birth and go to five years of age. There is some overlap in categories but the examples are; the pre-literacy period from birth to fifteen months, developing literacy from twelve months to forty-two months and the early literacy period from thirty six to sixty months of ages (Dunst, Trivette, Masiello, Roper, & Robyak, 2006).

With each stage of literacy development children should display certain learning behaviors. For example, during the pre-literacy period children often give attention to a specific object and attempt to communicate and interact with the chosen object by making various noises. Reading books to children, singing songs, sharing nursing rhymes, and even talking to them are all strategies which can aid in developing their pre-literacy skills. In other words, daily interaction with on topics relating to literacy can provide rich stimulus for developing their pre-literacy experiences. In the next stage, the developing literacy period, children's language skills begin to become more functional and useful. During this period they also begin to establish a vocabulary repertoire, as well as, start recognizing the print and symbols in their surroundings. Furthermore, in the developing literacy period, children realize the difference between reading and writing. They start developing their own drawings, scribbles, and unique symbols. Finally, during the early literacy period, children can understand that words are made up of syllables. They also comprehend the sounds they are making and the language they use in communication. As a result, they can begin manipulating letters, sounds, and words. With these stages in mind, early literacy can be defined as children's readiness to learn and utilize the basic skills of literacy (Karaman, 2013).

The meaning of early literacy skills is for the child to gain phonological awareness, print awareness, word knowledge, comprehension, and writing skills before they learn to read and write (Whitehurst & Lonigan, 1998). It is important for children to develop their early literacy skills in a systematic way. Along with, interest and readiness from the child, they also should have rich experiences and appropriate instruction in order to effectively develop early literacy skills. As a result, the preschool years are an important time for children to be exposed to appropriate experiences to aid in their early literacy skills development.

Teachers play important roles in assisting children acquire early literacy skills. It is important for teachers to have awareness of early literacy pedagogical strategies in order to plan appropriate teaching methods (Deretarla Gül & Bal, 2006). Teachers should be aware of the required literacy skills to be gained by children and should

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organize their classroom environment and activities based on their knowledge of early literacy skills (Deretarla Gül & Bal, 2006). In doing so, teachers may be able to provide natural interaction and concrete experience that children can associate with their daily lives, and as a result, fully develop their literacy skills.

One aspect of early literacy skills is print awareness, which includes four areas; alphabet knowledge, word knowledge, recognizing that text has meaning, and orientation to books and grammar rules (Zucker, Ward, & Justice, 2009). To acquire alphabet knowledge, children should know the names of both the lower case and upper case letters. In other words, children are expected to be able to associate letter signs with sounds and comprehend that each letter has its own sound.

Preschool pre-service teachers should be aware of early literacy skills in children, such as, print awareness and work in its development. Teachers' pedagogical knowledge, as well as, their awareness of children's early literacy skills development should impact their teaching methodology. Inevitably, a teachers approach to teaching is affected by their awareness, beliefs, ideas and perceptions. Their attitudes and knowledge can play an important role in the activities they utilize for developing children's early literacy skills (Ernest, 1991).

Determination of preschool teachers' classroom practices is associated with pre-service teachers' beliefs, philosophies and approaches developed through their undergraduate education. Pre-service teachers' awareness acquired before they begin teaching predicts how their teaching style. In other words, teacher candidates' awareness and perception about teaching can predict their future teaching practices. Thus, the purpose of this study was to investigate pre-service teachers' awareness's regarding early literacy. The research questions are listed below:

1. Do pre-service teachers know about early literacy?
2. How do pre-service teachers describe early literacy skills?
3. How do pre-service teachers describe the relationships between early literacy skills and reading/writing skills?
4. Can pre-service teachers prepare activities to improve children's early literacy skills?
5. Do pre-service teachers find their undergraduate education sufficient enough to prepare their knowledge base about early literacy?

Methods

In qualitative studies the cases, situations or events are investigated in their own circumstances without any intervention (Karasar, 2012). In case studies, as one of the qualitative research methods, the existing situation is being studied from multiple dimensions and in a holistic way. There are not precise boundary lines in case studies. As a result, under the guidance of the research findings the study can be rearranged and re-planned (Yıldırım & Şimşek, 2011). In this qualitative study, pre-service teachers' awareness toward early literacy was investigated. Data was collected through a survey with open-ended questions.

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The participants of the study were 4th year undergraduate students studying early childhood education at a university located in the largest city of Eastern Anatolian, Turkey. The total number of registered students was 120. However, participation in this study was voluntary, so some students did not receive the survey due to their lengthy absences. Also, some surveys were not returned to the researchers. As a result, the study was conducted with the total of 39 (i.e., 37 females and 2 males) preschool pre-service teachers.

The data collection tool, a survey, used for investigating pre-service teachers' awareness on early literacy was developed by the researchers. The survey has five open-ended questions. In terms of demographic information, only the participants' gender was asked. The questions were prepared based on a related research review, as well as, expert opinions and suggestions.

The survey was given to the participants in the spring semester of 2013-2014 academic years. The participants were asked to complete the survey prior to one of their classes. After doing so, the participants returned the surveys. The time spent completing the survey lasted between 20 to 30 minutes.

Pre-service teachers' responses to each question were written using a computer word processing program. Answers to each question were analyzed based on the related literature and recurring patterns from the collected responses. After content analyses, the findings were presented and discussed based on certain themes.

Findings

In this study, the awareness of pre-service teachers on early literacy was investigated. Following this purpose, the participants were asked to answer five open-ended questions listed on a survey. The participants' responses for each question were separated and analyzed using content analysis and later categorized into themes. For each item, participant responses were organized and presented in tables.

Initially pre-service teachers' gender was asked. However, there were very few male participants ($n=2$), so there were not any comparisons or correlations done based on the variable of gender. The responses to the question whether pre-service teachers have heard of the concept of early literacy or not are provided below:

Table 1

Pre-Service Teachers' Familiarity with the Concept of Early Literacy

Responses	<i>f</i>
They have heard of early literacy but cannot truly explain the meaning of it.	17
They did not hear of this concept.	13
They did not hear of the concept but tried to guess the meaning of it.	9

As seen in Table 1, thirteen pre-service teachers had not heard of the concept of early literacy and did not try to define it. However, nine other pre-service teachers stated that they also did not hear anything about early literacy but they were willing to provide some definition. It was discouraging to see that only less than half of these

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pre-service teachers heard about the early literacy concept. The responses of 17 pre-service teachers are presented in Table 2:

Table 2

Pre-Service Teachers' Definitions for Early Literacy

Responses	<i>f</i>
Unrelated response	9
Awareness	4
Skill	2
Readiness	1
Interest	1

Among 17 pre-service teachers, who stated that they had heard about the concept of early literacy, one pre-service teacher wrote that children might have interest in reading all by themselves. Early literacy was defined as gaining reading and writing skills by two pre-service teachers. One pre-service teacher saw early literacy as being prepared for reading and writing. Four pre-service teachers stated that early literacy is having awareness about reading and writing, and they argued the importance of this awareness. Unfortunately, the remaining nine pre-service teachers provided unrelated responses. As seen above, none of these pre-service teachers could truly explain its meaning.

The second question asked to pre-service teachers was "How do pre-service teachers describe early literacy skills?" Their responses are given in Table 3:

Table 3

Pre-Service Teachers' Descriptions of Early Literacy Skills

Responses	<i>f</i>
Unrelated response	12
No response	10
Phonological awareness	9
Alphabetical knowledge	8
Writing skills	7
Readiness	7
Print awareness	5
I do not know	3

According to Table 3, pre-service teachers mentioned diverse skills for early literacy. Unfortunately, more than half of these pre-service teachers were not able to provide an appropriate response. Three pre-service teachers wrote they did not know the answer, ten pre-service teachers left the question empty while twelve pre-service teachers wrote unrelated responses such as learning reading and writing during early years, simple mathematics calculations, and training people to do their job well.

Five pre-service teachers mentioned print awareness as early literacy skills. Phonological awareness was the most popular answer. Pre-service teachers

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mentioned voice recognition, being aware of sounds, and deriving meaningful words, as early literacy skills. Seven pre-service teachers mentioned readiness. One of these pre-service teachers stated that developing hand muscles and having hand-eye coordination are very important to develop this skill. Eight pre-service teachers wrote alphabet knowledge while seven pre-service teachers mentioned writing skills. Those who mentioned writing skills focused on drawing lines, writing numbers and letters.

Analysis of pre-service teachers' responses yielded that not all the pre-service teachers were able to list early literacy skills and less than 1/3 of them were able to list the main skills including; print and phonological awareness, alphabet knowledge and writing skills.

The second part of the second research question asked which skill was the most important among all early literacy skills. The pre-service teachers' responses were similar with some highlighting the importance of writing skills, while others focused on readiness, phonological awareness and print awareness. Additionally, for other pre-service teachers, children learning how to read was the most important skill in the development of early literacy.

The third research question investigated how pre-service teachers described the relationship between early literacy skills and being able to read and write. Pre-service teachers' responses are presented in Table 4:

Table 4

The Relationship between Early Literacy Skills and Reading-and-Writing

Responses	<i>f</i>
There is a positive relationship between them	12
No responses	8
They complete each other	7
Confused these two terms with each other	6
Early literacy affects academic achievement	2
There is no relationship between them	2

Even though twelve pre-service teachers stated that there was a positive relationship between these terms they could not explain the nature of the relationship. As seen in Table 4, eight pre-service teachers wrote they do not know the relationship or they left the question unanswered. Seven pre-service teachers wrote that these two complete each other. One of these pre-service teachers wrote that early literacy facilitates reading skills. Similar to this response, two pre-service teachers mentioned that early literacy affects children's future academic achievement. Six pre-service teachers could not provide a meaningful response while two pre-service teachers saw no relationship between these two skills.

In this study, pre-service teachers were asked to write activities for developing preschool students' early literacy skills. The participants wrote responses for five categories including; phonological awareness, visual perception, vocabulary, listening/speaking skills, and writing skills.

When pre-service teachers were asked to write an activity on phonological awareness, they focused on: a.) not letter related sounds (i.e., cars, animals, nature,

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rhyming) ($n=16$), b.) finding words starting with the same letter ($n=6$), and c.) finding a word starting with the last letter of the heard word ($n=2$). Ten pre-service teachers did not write any activities while eight pre-service teachers wrote unrelated activities. A majority of the pre-service teachers highlighted not letter sounds. According to those pre-service teachers letting children listen to the sounds of animals and transportation helped them improve their phonological awareness skills. Imitation of animal sounds is often expressed by the participants as useful. Additionally, in terms of phonological awareness, pre-service teachers only prepared activities emphasizing the initial and ending sounds of words.

When pre-service teachers were asked to write an activity on visual perception, they focused on matching ($n=6$) and finding similarities and differences ($n=4$). Unfortunately, nine pre-service teachers did not write any activities while nineteen pre-service teachers tried but were not able to write an appropriate activity related to visual perception. Some of the unrelated answers included; recognizing animals, making secondary colors from primary colors, hand-eye coordination, using visual material, telling stories via story cards, sorting, and patterns. Even though some pre-service teachers wrote activities asking children to match and find similarities and differences among illustrations none of the pre-service teachers wrote anything about object location, and distance and relationships between objects.

When pre-service teachers were asked to write an activity on vocabulary, they focused on language arts activities ($n=8$), story books ($n=7$), and phonological awareness ($n=6$). Similar to previous responses, majority of the pre-service teachers were not able to write an appropriate activity ($n=17$) or did not write any activities ($n=9$). Eight pre-service teachers mentioned telling nursery rhymes, reading poems, doing puzzles, singing songs and displaying unknown words on bulletin boards as activities to be done during reading and language arts. Seven pre-service teachers mentioned reading story books and paying attention to unknown words. Six pre-service teachers mentioned phonological awareness.

When pre-service teachers were asked to write an activity on listening and speaking skills, they focused on using story books ($n=10$), using question/answer methods and sharing activities ($n=7$), and doing drama ($n=3$). According to three pre-service teachers children can be encouraged to talk and listen to others via drama. In order to improve listening and speaking skills, pre-service teachers also mentioned activities can be done after reading books such as asking students to summarize the story, to find a related end for the story, and asking questions related to stories they had read. Pre-service teachers used a questioning strategy as well. According to them, asking children to introduce their family members and having frequent classroom talk times children can improve their listening to and speaking skills. Again, nine pre-service teachers did not write any activity and ten pre-service teachers wrote unrelated activities for this question.

When pre-service teachers were asked to write an activity on writing skills, they focused on drawing lines ($n=13$), writing numbers ($n=4$), and writing letters ($n=3$). In terms of writing skills pre-service teachers mainly highlighted correctly holding pencils, drawing lines without raising their hands from the papers, and connecting dots/tracing dots of a figure. Ten pre-service teachers did not write any activities and

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seven pre-service teachers were not able to provide appropriate activities related to writing skills.

The last question asked to pre-service teachers was whether they found their preparation on early literacy was sufficient enough during their undergraduate education. The pre-service teachers' responses to this question are given in Table 5:

Table 5

Pre-Service Teachers' Responses on Their Preparation on Early Literacy

Responses	<i>f</i>
No	18
Yes	11
No response	5
We did not take a course on early literacy	3
Unrelated response	2

As seen in Table 5, eleven pre-service teachers believe that they received enough knowledge on early literacy during their undergraduate education. According to these pre-service teachers they learned how to teach reading and writing and the activities they prepared and presented during the courses will help them in performing their jobs. However, a majority of pre-service teachers found their training not adequate to teach early literacy to young children. Eighteen pre-service teachers, on the other hand, stated that they did not believe that they were prepared enough to teach early literacy. To these pre-service teachers, what they experienced in classrooms was not related to early literacy and even further they argued that in order to learn how to teach these skills they need to spend time and gain experience in working in kindergartens. Additionally, three pre-service teachers believed that they did not take any courses which trained for teaching reading and writing. One of these pre-service teachers wrote:

"We have not taken a course on early literacy. We were told that kids in early childhood period are too young to learn literacy. Thus they do not have opportunities to learn reading and writing."

Conclusion and Discussion

In this study, pre-service teachers' awareness on early literacy was examined through a survey of open-ended questions and answers were codified and grouped according to themes. The findings of the study yielded that four of the pre-service teachers did relate early literacy with awareness. Nine pre-service teachers, on the other hand, focused on the meaning of the terms early and literacy individually and due to that they were not able to adequately define the meaning of early literacy.

This was an alarming conclusion because discussions in related literature pointed out that teachers' ideas and beliefs are reflected in their classroom environment (Ernest, 1991), and the pre-service teachers participating in this study

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did not even have opinions and/or ideas about early literacy. Pre-service preschool teachers must have some idea on early literacy in order to be aware of the strategies used in planning early literacy activities, carry out these activities and organize their classrooms to facilitate early literacy development (Deretarla & Bal, 2006). Thus, it can be argued that pre-service teachers who complete their undergraduate early childhood education with a strong awareness and understanding on early literacy can better support their students' early literacy skills development.

In terms of early literacy skills there were almost equal number of responses from pre-service teachers for each kind of skill. Early literacy skills include; phonological awareness, print awareness, alphabet and letter knowledge, vocabulary, listening comprehension, reading comprehension, and writing (Whitehurst & Lonigan, 1998). When placing pre-service teachers' responses in related answers, it was seen that teacher candidates had difficulty classifying their existing knowledge; they were familiar with some skills but were not fully knowledgeable about all the skills.

Pre-service teachers were also asked to define the relationship between early literacy and reading and writing. Many pre-service teachers emphasized the positive relationship between them yet they were not able to truly explain the reasons. However, related research highlighted the fact that children have readiness for literacy since they are born and early literacy activities and experiences effect their future reading and writing achievement (Deretarla & Bal, 2006; Dunst, Trivette, Masiello, Roper, & Robyak, 2006).

When pre-service teachers were asked to write an activity about phonological awareness it was seen that they were confused with the meaning of phonological awareness. According to many of pre-service teachers phonological awareness can be taught to children via teaching the sounds and noises of transportation, animals, and nature. Recognizing rhymes, deriving words based on beginning and ending sounds of given words, separating and blending sounds were ignored or were not acknowledged by the pre-service teachers. Related studies also show that teachers use phonological activities seldom (Akbaba Altun, Şimşek Çetin, & Bay, 2014). The responses gained from pre-service teachers are similar to the findings presented in other studies.

In terms of developing visual perceptions, pre-service teachers mainly focused on matching and comparison activities including finding similarities and differences. Related studies also showed that teachers mainly conduct these kinds of activities (Erdoğan, Özen Altinkaynak, & Erdoğan, 2013). Pre-service teachers' responses were in line with the results of other studies. This situation can be interpreted that what pre-service teachers believe impact what they do when they begin their career teaching in kindergartens.

In order to improve children's vocabulary, pre-service teachers listed reading a story book, asking puzzles, reading poems and saying nursery rhymes as related activities. Similar activities were listed in Erdoğan, Özen Altinkaynak and Erdoğan (2013) study for ways to improve children's vocabulary.

Pre-service teachers also used reading stories in order to improve children's listening and speaking skills. Some of the responses were about having conversations in classrooms about student's daily lives. Pre-service teachers were not able to

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provide an adequate variety of activities to improve these skills and a similar result was found in other studies (Erdoğan, Özen Altinkaynak, & Erdoğan, 2013).

When the responses on writing skills were analyzed, it was seen that pre-service teachers perceived writing skills as being able to draw lines and able to write letters and numbers. However, activities regarding writing skills should be taught in a more holistic way and should go beyond solely drawing lines and learning numbers (Şahiner, 2013). Children's print awareness and knowing that written language has its own rules and symbols are some of the most important steps for improving writing skills (Darling, 2005).

Pre-service teachers also stated that their undergraduate education was not enough to prepare them as teachers on early literacy awareness. Teachers in Şahiner (2013) and Güney (2012) studies also stated that they did not see themselves as effective in teaching early literacy and they did not consider their undergraduate education adequate enough to ensure teaching these skills. However, in Bay and Alisinanoğlu (2012) study, teachers were found to be knowledgeable enough in teaching early literacy skills.

Recommendations

The impact of being literate can be seen in every stage of life. Knowing that children have the potential to be aware of symbols, letters, numbers, and sounds around them in early ages makes pre-service teachers' awareness on early literacy even more important.

In this study, pre-service teachers' awareness on early literacy was investigated. Thus, some suggestions can be given to both practitioners and researchers. For instance, teachers' awareness on early literacy can be measured and investigated through different methods. In this study, the focus was solely on their responses. However, in future studies both pre-service teachers' responses and actual applications in the classrooms can be analyzed and compared.

Additionally, this study can be replicated by other researchers in order to compare these results with other study findings. Also a longitudinal study can be conducted with these pre-service preschool teachers after they have begun working in order to investigate whether their perceptions or activities have changed over time.

Moreover, in order to better prepare teacher candidates, the content of the "*Readiness to Elementary School*" course, can be revised to place more emphasis on developing early literacy skills awareness in teachers. Also, instructors might utilize different techniques in teaching this course. As seen in this study, pre-service teachers had a lack of knowledge on early literacy skills. Thus, providing additional elective courses can be helpful for them to become better prepared for teaching in schools. Finally, pre-service teachers can have opportunities to take courses from instructors working at different universities to broaden their knowledge base about child development and early literacy skills.

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