

Multi-grade teaching: Experiences of teachers and preservice teachers in Turkey

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ABSTRACT

This case study compared preservice primary school teachers' and primary school teachers' experiences with multi-grade teaching in the 2018–2019 academic year. The sample consisted of 17 fourth-year students in the department of primary school teaching education of a public university and 14 multi-grade teachers from 12 schools in Turkey. The preservice teachers and multi-grade primary school teachers developed similar lesson plans and executed similar learning processes. Although the multi-grade teachers claimed that they used different methods (brainstorming, drama, observation, etc.), the preservice teachers observed them mostly use Q&A and direct instruction techniques. The preservice teachers did not use multidisciplinary teaching activities but instead showed students videos and slides and designed textbook-based activities. They did not use different methods to plan a multi-grade lecture. Multi-grade teaching training offered by the faculties of education should be interdisciplinary and encourage collaboration among teachers from other branches (e.g., teacher agency).

KEYWORDS

multi-grade teaching, primary school teaching, primary school teachers, preservice primary school teachers

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INTRODUCTION

Teaching is what makes us human. It seems to be done in classrooms, but it is actually done in the heart. The word shapes us when written on the heart, not on paper. It is, in a sense, “social engineering.” To achieve this, primary school teachers should have an interdisciplinary perspective and provide learning environments for students with different personalities and prior knowledge. Primary school teachers have multiple responsibilities because those years underlie future development. This process involves classroom management, selection of activities, and assessment varying by grade level and school type. Single-grade and multi-grade classrooms are the two sides of the same coin. While single-grade primary school teachers teach only one grade, it is different for multi-grade teachers. Single-grade teachers develop activities for one grade and one subject. However, multi-grade classrooms are a “nightmare” for teachers because they have to design the class to appeal to every grade level in the classroom (Blease & Condy, 2014). In a multi-grade classroom, one teacher lectures to two or more grade levels (Hargreaves, Montero, Chau, Sibli, & Thanh, 2001). They are common and sometimes mandatory in regions where there are many students but few teachers (Çıkrık, 2017).

Multi-grade teaching was discussed extensively in Turkey for the first time in 1951. Based on Prof. K. V. Wofford’s analysis, first, second, and third graders were grouped as one multi-grade classroom, and fourth and fifth graders as another (Deniz, 2019). Multi-grade teaching was officially put into practice with a draft in 1968. Core courses (life sciences, social studies, and science) are also taught in multi-grade classrooms as of the 2000–2001 academic year. Multi-grade classrooms included first, second, third, fourth, and fifth graders until the 2012–2013 academic year. With the new regulation, the duration of primary education was reduced to four years (Al, 2019). Multi-grade teaching is common in many European countries (Netherlands, Norway, England, Scotland, Spain, Italy, and France), especially in less densely populated regions (Cecchi & Paola, 2018). Multi-grade teaching is used to address educational challenges and provide high-quality and efficient education (Brunswic & Valerien, 2004; Little, 2006). According to Butler, “multi-grade teaching, depending on its type, can improve student performance” (1998, p. 89). Besides, Kaka, Dehraj, Rao, and Memon (2019, 69) said: “curriculum of multigrade classes need to include such topics which are integrated and easy to select a common topic for multigrade class.” For that reason, integrating disciplines with different ways (interdisciplinary, transdisciplinary, multidisciplinary eg.) could be a way of possible solution as well.

Studies on multi-grade teaching address literacy and text analysis in primary school (Açan, 2015; Utlu, 2019; Wilkinson & Hamilton, 2003), teachers’ views (Aikman & Pridmore, 2001; Arıcı, 2015; Blease & Condy, 2014; Brown, 2010; Coşkun, 2018; Demir-Çetin, 2019; Deniz, 2019; Dirik, 2015; Doğan, Çapan, & Cigerci, 2020; Engin, 2018; Erdem, 2018; Erdost-Özenir, 2019; Kuzu & Aslan, 2012; Mason & Burns, 1995; Mason & Doepner III, 1998; Mulryan-Kyne, 2004; Ocak & Yıldız, 2011; Ocakçı, 2017; Summak, Gören-Summak, & Gelebek, 2011), effectiveness of methods and strategies employed by multi-grade teachers (Balcı-Sekin, 2019; Blease & Condy, 2015), challenges of multi-grade teaching (Çıkrık, 2017; Durdudiler, 2019; Göçer, 2014; Gönül, 2019; Özkan, 2019; Şekerci, 2015; Temizyürek, 2019), preservice teachers’ views on multi-grade teaching (İzci, 2008; İzci, Duran, & Taşar, 2010; Sağ, 2011; Taşdemir, 2014), views of students and their parents, and program developers on multi-grade teaching (Berry, 2001; Buaraphan, Inrit, & Kochasila, 2018; Butler, 1998; Cecchi & Paola, 2018; Hargreaves, 2001; Kara, 2020; Kivunja & Sims, 2015; Kucita, Kivunja, Maxwell, & Kuyini, 2013; Küçük, 2016;



Msimanga, 2020; Quail & Smyth, 2014; Şeker, 2014; Shareefa, 2021; Silva-Peña, Precht, O'Brien, & Jara, 2020), program development for the “Multi-Grade Teaching” course offered by the faculty of education (Karakuş, 2019), technological pedagogical content knowledge of multi-grade primary school teachers (Kaya, 2015), theoretical analysis of multi-grade teaching (Aksoy, 2008; Benveniste & McEwan, 2000; Bruce, 1991; Hargreaves et al., 2001; Irvin, McLaughlin, Irvin, & Doda, 1999; Little, 2006; Lloyd, 1999; Mason & Burns, 1996; McEwan, 1998; Mulryan-Kyne, 2007; Veenman, 1995), and violence-bullying among students of multi-grade classrooms (Rambaran, van Duijn, Dijkstra, & Veenstra, 2019). However, there is no research on both theoretical and applied aspects of multi-grade teaching in the eyes of preservice teachers and primary school teachers. Primary school teachers see multi-grade teaching as “a great nuisance and something that is hard to achieve” (Summak et al., 2011). This makes it imperative to look into the training offered by the faculties of education because how well primary school teachers perform multi-grade teaching depends on how well the faculties of education train them. We believe that determining the views of preservice teachers who learn multi-grade teaching in theory and those who put it into practice will increase their performance. Berry (2001) also argues that it is necessary to analyze what methods and strategies the multi-grade teachers employ in practice.

RESEARCH QUESTIONS

The main research question of this study was, “What are the multi-grade teaching experiences of preservice teachers and multi-grade teachers?” The study also sought answers to the following sub-questions:

- What kind of lesson plans do preservice teachers develop and execute within the scope of the course “Multi-Grade Teaching”?
- What are preservice teachers’ observations of multi-grade teachers in schools?
- What do multi-grade teachers think about multi-grade learning processes?

METHOD

Research design

This study investigated preservice primary school teachers’ theoretical lesson plans within the scope of the undergraduate course “Multi-Grade Teaching” and multi-grade primary school teachers’ performance in real learning environments. This was a case study, which is a qualitative research design. The case study was the research design of choice because it is a convenient method for studies seeking to find out the “what,” “how,” and “why” of a phenomenon (Yin, 2018, p. 40).

Participants

The sample consisted of 17 fourth-year students (13 women and four men) of the department of classroom education of the Faculty of Basic Education of Muş Alparslan University and 14 multi-grade primary school teachers (five women and nine men) from 12 schools in the



district of Merkez of the city of Muş in the academic year 2018–2019. Participants were recruited using criterion sampling. Multi-grade primary school teachers had one ($n=2$), two ($n=1$), three ($n=4$), five ($n=4$), six ($n=2$), or nine years ($n=1$) of work experience. They all had been trained in classroom teaching. Nine of them had taken a theoretical multi-grade teaching course, while four had taken an applied multi-grade teaching course. The main objective of criterion sampling is to elicit as much information as possible about a phenomenon in question (Patton, 2014, p. 238). The inclusion criteria for the preservice teachers were as follows: (1) taking the multi-grade teaching course, (2) having prepared a lesson plan, and (3) having agreed to participate in the study. The preservice teachers observed voluntary multi-grade teachers in real-life classrooms (at least one). Table 1 presents the general characteristics of the schools.

Data collection tools

Data were collected from the preservice teachers' lesson plans (for natural sciences, mathematics, Turkish, social studies, and life sciences courses), observations, and views of their observations. The multi-grade teachers also observed the preservice teachers putting their lesson plans into practice in their multi-grade classrooms. Therefore, the data also included the multi-grade teachers' observations and views of the preservice teachers' performance. Using more than one data collection tool improves credibility (Glesne, 2014). Participants' documents, field observations, and views were used to ensure data diversity. Observation is used for triangulation. In other words, it is one of the integral components of triangulation assessment, together with the interview and document analysis used to prove findings (Merriam, 2015). The multi-grade teachers' observations and views and the preservice teachers' lesson plans and observations were

Table 1. General characteristics of schools

School	Distance to Muş (km)	Multi-grade classrooms	Number of primary school teachers	Number of students	Total number of classrooms
A	5	1+2, 3+4	2	33	2
B	20–21	1+2+3+4	1	15	2
D	50	1+2, 3+4	2	24	2
E	40	2+3, 1+4 (In the first semester, the first and fourth grades were single-grade classrooms, but they were combined as the teacher was appointed to another school)	2	38	3
F	20	1+2, 3+4	2	39	2
G	15	1+2, 3+4	2	28	2
H	16	1+2, 3+4	2	24	2
I	17	1+2+3+4	1	6	1
J	17	1+2, 3+4	2	17	2
K	45	1+2, 3+4	2	31	2
L	25	1+2, 3+4	2	40	2
M	3	1, 2+3, 4	3	43	3



used for analysis. The preservice teachers' observations and evaluations of the multi-grade teachers' performance provided data diversity on multi-grade teaching.

The preservice teachers developed lesson plans and observed classes as participant observers once a week for nine weeks on specific dates and took field notes during the observation sessions. The multi-grade teachers were interviewed using a semi-structured interview form consisting of easy-to-understand and unbiased questions based on expert feedback (an expert with a Ph.D. in primary school teaching training, an expert working on a Ph.D. thesis in classroom teaching, and an expert with a Ph.D. in Turkish teaching). A pilot study was conducted with three primary school teachers, and the form was finalized based on their feedback.

Data collection and analysis

Each preservice teacher developed a lesson plan every week from March to May 2019 for multi-grade classes. The researcher gave them feedback on their lesson plans every week. They conducted participant observation for three months (March to May 2019) in the multi-grade classrooms of the schools in the district of Merkez of the city of Muş. They made observations in different classrooms of the same schools. Figure 1 provides information on the observation process.

Data were coded using second-cycle coding and analyzed using inductive content. The first cycle involves the contextual categorization of data (Saldana, 2019), while the second cycle involves the revision and analysis of data encoded in the first cycle and the association of categories, codes, and themes with one another (Glesne, 2014). The researcher firstly coded the lesson plans, then the observational data, and lastly, the interviews. Another researcher with a Ph.D. in primary school teaching education and is currently conducting qualitative studies checked the codes, themes, and categories. The themes and categories were finalized based on consensus.

Credibility and consistency

The study was conducted for three months (March to May 2019). Legal and ethical permission was obtained. Participation was voluntary. All information about participants and village

Dates	School/ Observed Teacher	Preservice Teacher	Duration of Observation	Class Duration
	A/Salim	Aydan, Ela, Saliha, Gamze, Merve	40'+40'+40'+40'	40'+40'
01/03/2019	B/Emre	Emel	40'+40'+40'+40'	40'+40'
02/04/2019	D/Kerem and Ahmet	Suat	40'+40'+40'+40'	40'+40'
09/04/2019	E/Kagan	Nida	40'+40'+40'+40'	40'+40'
11/04/2019	F/Harun	Funda, Nihade	40'+40'+40'+40'	40'+40'
15/04/2019	G/Zahide	Nil	40'+40'+40'+40'	40'+40'
19/04/2019	H/Furkan	Şeyma	40'+40'+40'+40'	40'+40'
25/04/2019	Gizem			
02/05/2019	I/Gökhan	Suna, Zeynep	40'+40'+40'+40'	40'+40'
06/05/2019	J/Ayhan	Salih, Nihal	40'+40'+40'+40'	40'+40'
	Nurhan			
	K/Beril and Funda	Eda, Fuat	40'+40'+40'+40'	40'+40'
	L/Efe	Murat	40'+40'+40'+40'	40'+40'
	M/Aybüke	Kerime	40'+40'+40'+40'	40'+40'

Fig. 1. General information on observations



schools with multi-grade classrooms were presented in detail. An expert was consulted for impartiality in qualitative data analysis. The category names were modified based on expert feedback. Participants were assigned pseudonyms (Aylan, Ela, Suat, etc.), and observation schools were assigned codes (A, B, C etc.) to ensure confidentiality and protect their anonymity. The preservice teachers observed multi-grade teachers without any intervention. The preservice teachers' lesson plans, observations, and views and the multi-grade teachers' observations and views of the preservice teachers' performance were used to ensure data diversity.

Limitations

The study had two limitations. First, data were derived from preservice teachers' weekly observations and teaching performance between March and May in the second semester of the 2018–2019 academic year. Second, the results are specific to the multi-grade teachers of the primary schools in Merkez/Muş and the fourth-year students of the department of primary school teaching education of the faculty of education of Muş Alparslan University.

RESULTS

The results of the first sub-question

This section addressed the theoretical lesson plans developed by the preservice teachers within the scope of the course “Multi-Grade Teaching.” They put their lesson plans into practice simultaneously in multi-grade classrooms of first and second graders, third and fourth graders, second and third graders, and first, second, third, and fourth-graders. They simultaneously lectured life sciences and social studies, social studies and natural sciences, mathematics and Turkish, and life sciences and mathematics courses. They also lectured one course to more than one grade level simultaneously, such as teaching Turkish to first and second graders or math to third and fourth graders. [Table 2](#) provides a general assessment of the lesson plans.

The first sub-question focused on the theoretical lesson plans developed by the preservice teachers within the “Multi-Grade Teaching” course scope. Their lesson plans appealed to different grade levels of the same course. They matched life sciences with social studies, social studies with natural sciences, mathematics with Turkish, and life sciences with math for different grade levels. They had activities for all groups in their “same course-different grades” lesson plans, whereas they had activities for one grade level and homework assignments for the other in their “different course-different grades” lesson plans. Based on [Table 2](#), preservice teachers are not fully competent in interdisciplinary approach and planning and designing when it comes to lecturing different courses for different grade levels at the same time. The introduction stage of their lesson plans focused on grasping students' attention while the development stage involved slides/videos, questions, and instruction-based lecturing. The evaluation stage consisted of homework assignments from textbooks or worksheets and Q&A sessions. Direct quotations from the multi-grade teachers about the preservice teachers' performance are as follows:

Zahide: “She lectured in the Q&A format, which was effective.”

(Learning-Teaching Activities, Q&A)



Table 2. Preservice teachers' lesson plans for multi-grade classes

Theme	Code	Preservice teachers
Introduction/Attention	Use of materials (videos, slides, worksheets, textbooks, etc.)	Emel, Saliha, Şeyma, Gamze, Suna, Zeynep, Salih, Merve, Eda, Nihade, Fuat, 2Nihal
	Q&A	Aydan, Emel, Salih, Merve, Eda, Murat, Nihade, Fuat, Nihal
	Talking about a case/Telling a story	Emel, Salih, Fuat
Learning-Teaching Activities	Play	Nihal
	Use of materials (videos, slides, activity papers, textbooks, etc.)	Aydan, Şeyma, Gamze, Zeynep, Salih, Merve, Eda, Nihade, Nihal, Kerime
	Q&A	Saliha, Suat, Gamze, Suna, Zeynep, Salih, Nihade, Nihal
	Lecturing	Suat, Gamze, Suna, Salih, Nihal
	Reading	Saliha, Merve, Fuat
	Problem Solving	Murat, Nihal
	Play	Şeyma, Merve
	Experiment	Zeynep
	Enactment	Saliha
	Observation	Nihade
	Concept Map	Nihade
Evaluation	Talking about a Case	Nihade
	Worksheets/Textbooks/Test/Activity assignments	Emel, Suat, Saliha, Şeyma, Gamze, Suna, Zeynep, Salih, Merve, Eda, Murat, Nihade, Fuat, Nihal, Kerime
	Q&A	Aydan, Saliha, Nihal
	Discussion	Aydan
	Turning into a story	Saliha
	Lecturing	Saliha
	Play	Nihal

The results of the second and the third sub-questions

This section discussed the preservice teachers' observations of the multi-grade teachers' lectures and focused on the multi-grade teachers' views of learning processes. The results showed that multi-grade teachers had no daily lesson plans. Table 3 provides a general assessment of the preservice teachers' observations. The results about the multi-grade teachers' views of learning processes were grouped under three headings; "principal authorized teacher practice (Table 4)," "learning-teaching process (Table 5)," and "multi-grade teaching (Table 6)."

Direct quotations from the preservice teachers about the multi-grade teachers' performance are as follows:

Eda: "The teacher did direct instruction and Q&A, but he could have used some other methods as well. All he did was talk about the topic. The materials were not enough, I mean, he didn't use enough materials. He couldn't use many methods and techniques. The downside was that the students had difficulty understanding the lecture. He was the only one who was active during class."

(Learning-Teaching Activities, Choice of Method/Technique/Approach, Q&A)



Table 3. Preservice teachers' observations of multi-grade teachers

Theme	Category	Subcategory	Multi-grade teachers
Learning-teaching activities	Choice of Method/ Technique/Approach	Q&A	All Teachers
		Lecturing	Emre, Kadir , Salim, Zahide, Furkan, Gökhan, Ayhan, Beril, Efe, Harun, Funda, Aybüke
		Drama	Salim, Emre
		Discussion	Gökhan
		Brainstorming	Gökhan
	Use of materials	Individualized education plan development	Zahide
		Textbooks/activity papers	Salim, Emre, Kadir, Gökhan, Ayhan, Harun, Funda
Evaluation	Homework assignments	Test/Activity papers/ Textbooks	All teachers

As for the second and third sub-questions, there is an inconsistency between the preservice teachers' observations of the multi-grade teachers and the multi-grade teachers' statements about their own performance. The preservice teachers observed that the multi-grade teachers used methods and techniques similar to those they had in their lesson plans. On the other hand, the multi-grade teachers claimed that they used different methods and techniques in their lectures.

Direct quotations from the multi-grade teachers are as follows:

Salim: There is nothing good about the principal authorized teacher practice for the teacher. I mean, he has to be in charge of everything; for example, when other teachers are discussing with parents, he has to deal with it as the principal. He is responsible for all the duties of a principal, and on top of that, he has to plan the class and deliver it and deal with all other things about the school, like repairs, paint, and paperwork, and whatnot. As an advantage, he learns how to do filing and draw up a staff absenteeism list, so he learns how to do paperwork.

(Negative, Dealing with Everything at the Same Time)

Table 4. Multi-grade teachers' views of principal authorized teacher practice

Theme	Code	The multi-grade teachers
Negative	Excessive administrative duties/Workload	Emre, Kerem, Harun, Zahide, Gizem, Gökhan, Ayhan, Beril, Funda, Aybüke
	Administrative duties as an obstacle to teaching	Emre, Harun, Gizem, Ayhan, Funda, Aybüke
	Dealing with everything at the same time	Salim, Gökhan, Ayhan
Positive	Not enough time for oneself	Emre, Kadir, Zahide
	Learning administrative affairs	Salim, Emre, Kağan, Zahide, Gökhan, Beril
	None	Salim, Kadir, Kağan, Funda
	Experience	Emre, Zahide, Funda
	Process planning	Emre, Zahide
	Prestige	Kadir





Table 5. Multi-grade teachers' views of the learning-teaching process

Theme	Category	Subcategory	Multi-grade teachers
Multi-Grade Life Sciences Course	Choice of Method/Technique/ Approach depending on the topic	Talking about a case	Salim, Emre, Zahide, Gizem, Ayhan
		Presentation	Salim, Kağan, Beril, Aybüke
		Turning the abstract into the concrete	Emre, Zahide, Beril
		Q&A	Emre, Gökhan, Ayhan
		Discovery	Kağan, Ayhan
		Education outside the classroom	Emre, Funda
		Tests	Zahide
		Puzzles	Zahide
		The six thinking hats	Emre
		Station	Emre
		Discussion	Ayhan
		Drama	Emre
		Brainstorming	Ayhan
		Textbooks	Kadir, Harun, Ayhan
		Activity papers	Beril, Funda, Aybüke
		Smartboard	Ayhan, Aybüke
		Multi-Grade Science Course	Choice of Method/Technique/ Approach depending on the topic
Presentation	Emre, Kağan, Gizem, Beril, Funda		
Discovery	Kağan, Gizem, Beril, Funda		
Experiment	Salim, Emre, Zahide, Aybüke		
Lecturing	Zahide, Gökhan, Aybüke		
Education outside the classroom	Kadir, Ayhan, Funda		
Observation	Zahide		
Drama	Gizem		
Showing and getting it done	Zahide		
Brainstorming	Emre		
Discussion	Gökhan		

(continued)

Table 5. Continued

Theme	Category	Subcategory	Multi-grade teachers
Multi-Grade Social Sciences Course	Use of materials	Computer/projector/smartboard Textbooks	Salim, Aybüke Harun, Gizem
	Choice of Method/Technique/ Approach depending on the topic	Talking about a case	Salim, Emre, Gizem, Beril, Aybüke
		Q&A	Salim, Emre, Ayhan
		Lecturing	Emre, Zahide, Gökhan
		Turning the abstract into the concrete stories	Emre, Zahide
		Brainstorming	Salim
		Drama	Ayhan
		The six thinking hats	Emre
		Presentation	Ayhan
		Discovery	Kağan
		Education outside the classroom	Kağan
		Discussion	Beril
		Use of materials	Computer/projector/smartboard Textbooks



Table 6. Multi-grade teachers' metaphors for multi-grade teaching

Category	Metaphors	Multi-grade teachers
Need	Mother	Gökhan, Beril, Funda, Kadir
	Country	Emre
	Being president	
	Dealing with all parts of the market	Salim
	Seven-armed dragon	Harun
Awareness	Octopus	Aybüke
	Rainbow	Zahide
Patience/labor	Farming	Gizem
No response	-	Kağan, Ayhan

Table 5 presents the multi-grade teachers' views of the learning-teaching process.

The multi-grade teachers argued that they used different methods and techniques in different classes. For example, they claimed that they used the methods of “talking about a case,” “drama,” and “the six thinking hats” in life sciences and social studies classes and the methods of “Q&A,” “Experiment,” and “discovery learning” in natural science classes. However, the preservice teachers observed that the multi-grade teachers employed only the methods of “Q&A” and “direct instruction” in all classes. Below are direct quotations from the multi-grade teachers:

Ayhan: “I mostly present cases in life sciences classes because real-life examples make the students more attentive and make what they learn stick. I show some videos on the smartboard and also use the textbooks. As I said, I use the methods of talking about a case, Q&A, brainstorming, discussion, and discovery learning because they make the students more engaged and the class more productive. I generally use the smartboard, computer, and textbooks.”

(Choice of Method/Technique/Approach Depending on the Topic)

Table 6 presents the metaphors generated by the multi-grade teachers for multi-grade teaching.

The below are direct quotations from the multi-grade teachers:

Kadir: A multi-grade teacher is like a mother who is a superhero (Doctor, Nurse, Chef, Organizer) because she always takes care of her students. You always have to search for new things and improve yourself.

(Need, Mother)

DISCUSSION AND CONCLUSION

This study investigated what multi-grade primary school teachers and preservice primary school teachers thought about multi-grade teaching.

Results shows that the preservice teachers could not successfully implement multi-grade teaching because their lesson plans lacked interdisciplinarity and different methods and



techniques. This is because “Multi-Grade Teaching” is a theoretical course that lacks activities integrating different age groups and disciplines. In other words, fresh graduates are ill-equipped for multi-grade teaching. Research also shows that students of the faculties of education do not receive adequate training in multi-grade teaching, and therefore, have no idea about it when they enter professional life (Silva-Peña et al., 2020). Moreover, the faculties of education offer little to no training about teaching in rural regions or care less about it than other educational programs (Checchi & Paola, 2018; İzci, 2008; Little, 1995). The faculties of education in Turkish universities changed “Multi-Grade Teaching” from a core course to an elective course titled “Alternative Education Practices in Primary School” in 2018 (URL 1). However, the new course also falls short of providing an adequate basis for multi-grade teaching. The courses on multi-grade teaching offered by education faculties are insufficient (İzci et al., 2010). Teachers can modify their teaching methods and techniques to overcome this problem and positively change students’ learning (Checchi & Paola, 2018). Schools should be supported to develop programs and train their teachers for effective multi-grade teaching (Colbert, 1999). Also, resources should be managed in such a way that schools can employ well-trained multi-grade teachers (Juvane, 2005). However, the multi-grade teachers in this study did not pay much attention to inter-disciplinarity and different methods and techniques and instead took refuge in Q&A sessions. This result shows that multi-grade teachers focus on things other than classroom activities and professional development. Multi-grade teachers talk about insufficient physical and technological infrastructure, ineffective communication with students and their parents, and harsh environmental conditions and village life (Anılan, Kılıç, & Demir, 2015; Başer & Karaman, 2015; Çapuk & Ünsal, 2017; Çıkrık, 2017; Demir-Çetin, 2019). However, Quail and Smyth (2015) see multi-grade classrooms as settings that allow different age groups and grade levels to learn effectively.

All multi-grade teachers held Q&A sessions and used direct instruction and gave homework assignments (evaluation stage) based on textbooks or activity papers in their classes, regardless of the core course (life sciences, social studies, or natural sciences) even though students in multi-grade classrooms tend to devote all their energy to homework assignments, resulting in passive learning (Aikman & Pridmore, 2001). Unlike our results, Jordaan (2006) states that multi-grade classes allow teachers to make their own decisions about learning-teaching processes and develop and execute their own lesson plans. Mulryan-Kyne (2005) also argues that multi-grade teachers can use different methods and materials and integrate different disciplines (drama, music, physical education, visual arts, etc.) for all grade levels. Msimanga (2020) and Shareefa (2021) state that multi-grade teachers can set up learning stations (reading, mathematics, fine arts, etc.) and make use of customized activities to contribute to students’ learning. Haingura (2014) suggests that multi-grade teachers should design creative and engaging in-class activities. The multi-grade teachers in this study performed poorly, probably because they are ill-prepared for classes, know little about new teaching methods, have little time for professional development due to the principal authorized teacher practice, and fail to adopt a multidisciplinary approach to teaching due to the lack of field knowledge. It may also be related to multi-grade teaching practices varying from country to country. However, some studies show that insufficient time and resources prevent multi-grade teachers from performing effective in-class activities (Abay, 2006; Çıkrık, 2017; Köksal, 2009; Little, 2006; Mason & Burns, 1996). The multi-grade teachers in this study just checked the annual lesson plans online instead of developing daily lesson plans, which is probably because the Ministry of Education and the



faculties of education do not have a joint educational policy or training project for multi-grade teaching (Kucita et al., 2013). Another cause may be that multi-grade teachers have little time to prepare lesson plans because they have to devote a significant amount of time and attention to performing principal authorized teaching. The multi-grade teachers in this study also stated that the principal authorized teacher practice prevented them from performing their profession because they were overwhelmed by workload and administrative tasks they had to tackle at the same time, which earlier studies have also reported (Göçer, 2014; Gönül, 2019; Mason & Burns, 1995; Mulryan-Kyne, 2004; Summak et al., 2011; Veenman, 1995, 1996). They regarded multi-grade teaching as a challenging task that required multitasking, and therefore, could not devote enough time to in-class learning-teaching activities. They also argued that undergraduate education was only theoretical. Kucita et al. (2013) also note that multi-grade teachers feel incompetent because they are inadequately trained in multi-grade teaching. Therefore, most teachers have little to no experience in delivering multi-grade classes before they enter professional life. In college, most preservice teachers are trained in single-grade teaching (Kivunja & Sims, 2015; Mulryan-Kyne, 2007), which also explains our results. The multi-grade teachers in this study delivered their lectures mostly in a monotonous fashion. The multi-grade teachers and preservice teachers designed similar learning-teaching processes. The preservice teachers repeated the mistakes they criticized the multi-grade teachers for. Training and collaboration can help multi-grade teachers better plan their lessons and stay organized (Benveniste & McEwan, 2000; Seashore-Louis & Marks, 1998). However, some of the multi-grade teachers stated that the principal authorized teacher practice helped them learn administrative tasks and gain experience. This result shows that multi-grade teachers are interested in investing in their personal development and careers.

The multi-grade teachers generated the metaphors of “need,” “difference,” and “patience/labor” to describe multi-grade classes, which was similar to earlier studies (Yener & Atalay, 2018).

Suggestions

The following are suggestions based on the results:

- For multi-grade teaching training, the faculties of education should offer activities (e.g., teacher agency) that encourage students to develop an interdisciplinary perspective and collaborate. The Ministry of Education and the faculties of education should collaborate to develop applied teacher training programs.
- Preservice teachers and multi-grade teachers should plan their lessons together and get professional support to improve different teaching methods. The faculties of education should offer applied courses on multi-grade teaching and collaborate with national education provincial directorates to allow students to put theory into practice.
- Multi-grade teachers should get help from preservice teachers to perform multiple tasks at the same time. Preservice teachers should take an internship in schools with multi-grade classrooms to develop teaching skills and reduce multi-grade teachers' workload.
- The results of this study are limited to the multi-grade teachers of the village schools in a city in the Eastern Anatolian Region of Turkey and the students of the faculty of education of a university in the same city. Therefore, future studies should focus on teachers and students from different cities and analyze the effects of classroom activities on students.



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