

MUSIC LESSONS IN DISTANCE LEARNING AND A PRESENTATION OF MUSICAL OBJECTIVES IN THE AFFECTIVE, PSYCHOMOTOR AND COGNITIVE DOMAINS

BOJAN KOVAČIČ,¹ MATEJA KOLMANIČ,² ALJA LAPUH¹

University of Maribor, Faculty of Education, Maribor, Slovenia

bojan.kovacic@um.si, alja.lapuh@um.si

² Primary School Križevci pri Ljutomeru, Križevci pri Ljutomeru, Slovenia

mateja.kolmanic@gmail.com

Abstract The aim of the study was to determine the distribution of planned music objectives in the affective, psychomotor and cognitive domain in the associated taxonomic categories in the internship of student teachers (full-time students of primary education in the academic year 2019/20). The research sample included 84 third-year undergraduate students who conducted distance music lessons in pairs ($n = 42$) via video explanation, and 55 first-year Master of Elementary Education students who independently taught distance music lessons ($n = 55$) at the elementary level during a condensed two-week internship under the supervision of a general education teacher. This study utilised a descriptive method of empirical pedagogical research. Data were obtained by analysing 97 lesson plans. Using a t-test, some statistically significant differences between the two groups of student teachers were found. The conditions that were found and the differences can be attributed to several factors, such as the difference in the amount of acquired musical-professional and didactic competences between the two groups of students, the particularities of distance learning, and the fact that the 3rd year students had their practicum under the guidance of professional didacticians and the master's students under the guidance of mentors at the elementary school.

Keywords:

affective domain,
psychomotor
domain,
cognitive domain,
music education,
music objectives
planning,
elementary
education

1 Introduction

The processes and effects of music teaching and learning are complex and, through the interaction of musical activities, enable balanced learning development in the affective, psychomotor, and cognitive domains. Therefore, when planning and implementing music lessons, it is important to consider the integrated, process-developmental and learning-objectives aspect (Sicherl Kafol, 2015).

When we talk about classic teaching, we are aware that teaching is a complex whole – a complex concept (Ivanuš Grmek & Javornik Krečič, 2011). A lesson is the deliberate and planned acquisition of new knowledge and, at the same time, a means of achieving educational goals. It has a basic structure consisting of five components. These are objectives, content, didactic environment, time, and resources (Kramar, 2009). Important aspects of teaching also concern the role of the teacher in the classroom, forms of learning, working methods, strategies (Ivanuš Grmek & Javornik Krečič, 2011), the learning environment (Strmčnik, 2001), the active participation of students in the classroom (Kramar, 2009), which increases motivation to learn (Kastelic et al., 2021), didactic games (Rugelj, 2014; Kopačin, 2020), individualization and differentiation (Strmčnik, 1993; Galeša, 1995; Kramar, 2009; Drobnič, 2014), cross-curricular integration (Sicherl Kafol, 2008), etc. The situation with COVID-19 radically changed our lives overnight. Accordingly, we were also forced to adapt the way of teaching, as classic classroom teaching was temporarily impossible. It took much innovation and creativity to keep the gaps between classic face-to-face and distance teaching as small as possible.

2 Distance Education

Distance education and classic education differ considerably. The differences are evident everywhere, both in pedagogical-didactic and organizational areas. An adequately-supported learning environment and a suitably qualified teacher are priorities in every school during distance education. If the conditions are met, the implementation of distance education can be of very high quality (Kustec et al., 2020). In distance education, the teacher is no more a monopolist of knowledge, but primarily an advisor and moderator of the process. They are physically separated from the student, and the relationship between them is significantly different. In e-learning, the active acquisition of knowledge and learning is crucial (Bregar, 2002).

Distance education cannot completely replace traditional classroom instruction. However, when various unforeseen situations occur, such as the COVID-19 pandemic, it is a good option for classes to take place at all. However, it is extremely important that we give students clear instructions, provide a reasonable amount of work, and give them ongoing feedback during distance learning. It is also important to provide motivation, which can quickly wane. In terms of didactics, distance learning is not so didactically diverse. The explanation method is often used in combination with presentations and conversations (Kustec et al., 2020).

E-learning involves learning not only from the established sources of knowledge typical of traditional classroom instruction (e.g., textbooks and other study materials), but also learning by using other resources available online (Bregar, 2002). Simply transferring the work to an online environment is not enough in this case; teachers must almost completely adapt the way they work, communicate with students, their content and methods, etc. When conducting distance education, it is also important to choose the right medium. Teachers most often opt for e-mail, online classrooms, and video conferencing through a variety of web platforms (Krecenbaher Mernik, 2020).

Bowman (2014) states that traditional instruction is often referred to as the standard of quality, but at this point he emphasizes the assumption that there are both weaknesses and strengths in distance and traditional instruction. He also believes that interaction between students is very important because it bridges the gaps in the physical separation of peers.

3 Advantages and Disadvantages of Distance Education

E-learning provides faster and cheaper training to a larger number of people, is flexible in time and place, and offers faster access to knowledge; these are the main advantages. E-learning also accelerates globalization by enabling education beyond the borders of one's home country. In Slovenia, we have relatively well-developed infrastructure and expertise for e-learning to thrive, both on a level similar to the developed European countries (Bregar, 2002). Distance education allows for low implementation costs, high-quality instruction, and increases the flexibility and efficiency of implementation. Other benefits that distance education can offer students include increased access to educational opportunities, the ability to choose

the learning method, administrative efficiency, improvement of students' skills, etc. (Grahame Moore & Diekl, 2019, as cited in Krecenbaher Mernik, 2020).

A major shortcoming of distance education is the lack of interpersonal interaction between students and from teacher to student. There is less social support for the student, and there is also a lack of contextual interactions between the student and the content itself (Kung-Ming & Khoon-Seng, 2009, as cited in Krecebaher Mernik, 2020). Another shortcoming is low motivation in distance education, which can also be triggered by assessment criteria that are too high and learning content that is too demanding. Namely, students work more independently in distance education, the teacher's explanations are largely reduced, and contact with the teacher is also reduced (Kastelic et al., 2021). The study conducted by Rupnik Vec et al. (2020) confirmed that distance education is more demanding for students than traditional face-to-face education, but it was still evaluated as interesting and creative. They emphasised the lack of social contact with peers as well as with teachers, as students missed the teacher's explanations.

In planning distance education, the teacher faces major challenges that also have to do with individualization and differentiation (Mosbrucker, 2007), especially when it comes to dynamically adapting content and methods to the pace and nature of an individual's ability to learn (El Falaki et al., 2010).

The online environment offers and opens new avenues, so rather than trying to replicate a traditional learning environment in distance education, it is necessary to try to make the learning experience as easy as possible and reduce the challenges (Thomson, 2010). We need to use web and computer tools and applications for distance education. Fortunately, current information and communication technology has made tremendous progress and is highly developed, so we know of many value-added tools and online platforms that can be used to advance distance education: the Retrotool online tool, Mentimeter, Kahoot, Google Drive, Liveworksheets, E-asistent, Lo.Polis, Moodle, ZOOM, Microsoft Teams, etc.

4 Asynchronous and Synchronous Distance Learning

Asynchronous instruction is distinctly different from synchronous instruction. Synchronous instruction occurs live for students and instructors simultaneously (Kustec et al., 2020). Synchronous and asynchronous interaction in the online environment is clear, but much less is known about the pedagogical consequences of using these two methods in the same environment (Oztok et al., 2013).

Synchronous communication is the real-time communication between teachers and students in the form of text chat (Johnson, 2006). In synchronous learning, students receive immediate feedback, and the student and teacher collaborate and act spontaneously. Thus, synchronous learning is more similar to traditional classroom learning because it takes place in real time (Kung-Ming & Khoon-Seng, 2009, as cited in Krecenbaher Mernik, 2020). In synchronous learning, teachers most often use videoconferencing because it allows frontal instruction (Krecenbaher Mernik, 2020).

On the other hand, asynchronous teaching embraces the basic principles of constructivist education, including student and teacher participation and active learning. In asynchronous learning, students can come to the fore to a greater extent and thus take a more central role in learning. Asynchronous distance learning also brings many other benefits, such as time for responsiveness, adaptability, situational learning, etc. (Oztok et al., 2013). If teachers are to successfully navigate an asynchronous teaching environment, they must first examine their views on the philosophy of teaching and adjust them slightly or abandon some views if necessary. Asynchronous teaching requires different approaches and ways of working, of which teachers themselves must be aware. The asynchronous mode has emerged as the predominant form of computer-mediated educational communication. Asynchronous learning environments can promote meaningful learning if there is an appropriate cognitive, social, and pedagogical presence (Oztok et al., 2013). The possibilities are many but are limited by the energy and creativity of those who design the lessons (Johnson & Aragon, 2003).

5 Distance Learning and Music Education

The music teacher must create a learning environment that regulates important pedagogical and technical areas which primarily support quality music instruction, whether it is classic or distance learning. As far as learning and teaching music through distance education is concerned, it does not go far back in time. Distance learning is especially challenging for music teachers because they lack or do not have experience in this field. It is also a challenge for the students who must also adjust to a completely new approach to their continuing education (Ruippo, 2003).

Recently, we have seen a significant upsurge of information and communication technology in music. Music has become accessible to everyone in this and other forms (Breznik, 2016). However, as far as music education is concerned, it is still a challenge. The results of a survey conducted by Bohak Adam and Metljak (2021) show that the digital literacy of music education teachers has improved significantly during the pandemic. Teachers have acquired a new set of skills in this area, as their ICT-related competences in practice have greatly improved since the beginning of the pandemic and are much better than before. Indeed, the teacher has a key role in the integration of ICT into music teaching, so he or she must have a certain level of competence in digital literacy, which is also confirmed by the students in the study conducted by Rotar Pance and Bohak Adam (2019). If teachers are knowledgeable about digital literacy and follow innovations in information and communication technology, they will find it easier to do their work, achieve learning objectives more effectively, and improve motivation, both in traditional and distance education. However, student-centred listening, performing, and creating activities should still be at the forefront of music teaching, and the use of ICT should not be the predominant activity but only serve as a support for teaching (Bohak Adam & Metljak, 2021).

In any case, there are also some interactive limitations to distance learning in music education. All this leads to the need for the teacher to change their mindset and teaching methods. It is important for the teacher to combine different styles in the distance teaching of music and not use just one teaching method (Ruippo, 2003).

Maki (2001) engaged in a study on music teaching in remote places. As part of the study, they sought to create a learning environment as similar as possible to that found in traditional classrooms, while developing learning methods that would increase educational equality. The results of the study showed that it was much more difficult to learn singing and playing instruments remotely than music history and general theory. Also, there was a time lag that represented a burning problem when singing and/or playing at the same time. Another problem that arose when teaching music at a distance was the problem of proximity. The teacher and the student were physically separated, so the teacher could not help the student in the way they could if they were together. When playing an instrument, for example, the teacher cannot help the student with hands and finger positioning. However, they can still zoom in and out of the camera remotely via video conferencing and model the positions of their hands, which still gives the teacher a good overview and control (Maki, 2001).

Riley's (2009) study confirmed earlier findings that the most frequent technological obstacles in videoconferencing are sound, image, and time delay problems (Maki, 2001; Wulf & Schinzel, 1998; Gouzouasis, 1994, as cited in Riley, 2009). It has also been confirmed that it is not possible to implement such a range of material at a distance as would be possible in traditional teaching in the same amount of time. Videoconferencing is therefore a great way to teach when students and teachers are in distant locations, which can be particularly beneficial in the area of cultural interaction (Riley, 2009).

Videos can be an effective choice when teaching music at a distance. During the epidemic, in March 2020, the Razlagamo.si educational portal was launched, and it was specially designed for distance learning and peer support. The materials and video explanations are intended for asynchronous teaching. The portal covers more than a hundred primary and secondary school subjects, and it also includes music school subjects. The videos follow certain guidelines (Pesek et al., 2020). The subject of music arts is relatively well covered from the 1st to the 5th grade of elementary school, and the website includes over a hundred video explanations that allow the student to pause the recording, play it several times, and follow the explanation according to their abilities.

Research has shown that pre-recorded videos have many advantages. They allow flexibility of time and location, reduce educational costs, promote independent learning, provide unlimited access to learning materials, create a collaborative learning environment that connects students with peers and physically separated professionals, they are also better for updating and retaining knowledge, and the activities are student-centred (Baloian et al., 2000; Piccoli et al., 2001). Videos are embedded in cognitive theory and help to extend the learning context through information technology and real-life situations. Indeed, pre-recorded videos can make the learning context a more practical and realistic learning experience (Kumar, 2010). Lee (2001, as cited in Chen, 2012) points out the problem of videos, stating that they can lead to superficial learning and limit the sustainability of learning outcomes. Lee also believes that the learning materials in videos are not well organized. As we know, the learning activities in a traditional classroom basically follow textbooks or the chapters within. Thus, students may quickly fall into a passive state, wherein they do not enjoy learning; they may even fail to understand what is presented and are later unable to apply it. The mere inclusion of recordings may not be enough to enhance learning (Zhang et al., 2006). In recording video explanations, the prevailing method is explanatory, also called the Socratic method, which is one of the most commonly used methods in general and in various fields (Overholser, 2018; Pesek et al., 2020).

6 Musical Objectives

The structural elements of instruction include the student and the teacher, as well as the content, the objectives, and the didactic resources. Learning objectives are an integral part of general learning planning, and at the same time, they are the most important regulator of teaching in general. Learning objectives in Slovenian education are classified according to Bloom's taxonomy, which includes cognitive, emotional-motivational or affective, and skill or motor objectives. Within the set of cognitive objectives, there are six taxonomic levels, which are as follows: Knowledge, Comprehension, Application, Analysis, Synthesis, and Evaluation. Each of the taxonomic levels is an extension of the previous one, as thinking processes are classified into a hierarchy (Ivanuš Grmek & Javornik Krečič, 2011). Bloom was an advocate of the fact that when teaching and later testing knowledge, we need to keep in mind that learning itself is a process and that we need to develop higher order thinking processes in students. According to his taxonomy, this means that we

develop children's cognitive abilities during teaching to the point where they are capable of synthesis and evaluation. However, since these two taxonomic levels mostly involve only thinking processes, it is mainly the cognitive component that is activated here (Kennedy, 2007/2015).

Musical objectives tell us what changes and progress students will make through the process of music education. In musical objectives, we focus on the processes of performing, listening, and creating, as well as the accomplishments students acquire during the educational process of music education. Learning objectives in the area of affectivity are planned according to the level of internalization. Thus, we focus on emotions, attitudes, and values from lower to higher taxonomic categories. The achievement of objectives in the affective domain is also directly related to objectives in the psychomotor domain. The psychomotor domain is very important from the point of view of music learning. Indeed, without active music making, students cannot develop their own musical experiences and performances. The elementary way in which a child responds to sound is through motor response, and psychomotor objectives are present in most musical activities. The third area of objectives is cognitive, which is the foundation of musical thinking. This area involves the development of musical thinking, memorization, renewal, comprehension, and the ability to use sound ideas in completely new situations. These new situations may involve the production and evaluation of sounds. The relationship between each of the areas of learning objectives in music didactics is reciprocal. Indeed, musical thinking is formed through affective and psychomotor experiences, so we can also say that the relationships among the domains are reciprocal (Sicherl Kafol, 2015).

In order for the planning and subsequent implementation of the learning process in music art to be of truly high quality, it is important to plan learning objectives and musical activities in a systematic and balanced way. Oblak (1995, as cited in Sicherl Kafol, 2015) explains the importance of not neglecting any musical activities, as this can lead to gaps that are difficult or impossible to remedy.

Through musical objectives, we express, at various levels of concreteness, the objectives of music teaching and learning in the areas of musical performance, listening, and creating. Musical objectives state how students will change or progress in their learning under the influence of music instruction. We use musical objectives

to refer to learning in the areas of performance, creation, and listening, as well as learning outcomes that are reflected in the acquisition of musical language. At the highest level of concreteness, musical objectives are defined as operational objectives that express the purposes of music teaching and learning in a given unit of study in terms of musical development in the affective, psychomotor, and cognitive domains (Sicherl Kafol, 2015).

In the affective domain, musical objectives are planned according to the degree of internalization of interests, attitudes, values, and emotions (Krathwohl, 1964, as cited in Sicherl Kafol, 2015). The qualitative range of musical objectives extends from lower taxonomic categories, with passive response to sound information still present to taxonomic categories with active response and an organized value system. Krathwohl's (1964, as cited in Sicherl Kafol, 2015) taxonomic categories of the affective domain are: Receiving, Responding, Valuing, Organization, Characterization.

Psychomotor objectives are present in most musical activities and enable the development of musical skills, abilities, and musical language. We use them as a method of learning (movement indications of pitches, durations, strengths, and other musical elements) and as learning outcomes (movement expression with music in the form of dance, dance games, movement creation, etc.) (Sicherl Kafol, 2015).

According to Kibler et al. (1970, as cited in Sicherl Kafol, 2015), the classification of learning objectives for the psychomotor domain is defined according to the degree of skill growth from gross, larger movements to finer movements and from nonverbal to verbal forms of communication, and it includes the following categories: Gross Body Movements (with subcategories "upper limb movements", "lower limb movements", "simultaneous movements of several body parts"), Finely Coordinated (with subcategories "hand and finger movements", "eye and hand coordination", "ear and hand coordination", "hand, foot and eye coordination", "combination of coordinated movements"), Non-Verbal (with subcategories "facial expressions", "hand movements", "whole body movements"), Speech Behaviours (with subcategories "voice formation", "word formation", "speech formation of longer texts", "coordination of words and gestures").

Following cognitive taxonomy (Bloom, 1956, Anderson et al., 2001, as cited in Sicherl Kafol, 2015), we trace the development of musical thinking from basic understanding at the level of sound recognition, memory, and recall, to higher levels with the ability to use sound performance in new situations, which includes sound production and evaluation. The taxonomic categories of the cognitive domain (Bloom, 1956, Anderson et al., 2001, as cited in Sicherl Kafol, 2015) are: Knowledge (with subcategories “knowledge of individuality”, “knowledge of how to deal with individual facts and data”, “generalized knowledge”), Understandings (with subcategories “translation”, “explanation or interpretation”, “prediction or extrapolation”), Use, Analysis (with subcategories “analysis of elements”, “analysis of relations”, “analysis of structure and organizational principles”), Synthesis (with subcategories “creation of an original message”, “elaboration of a plan or a working proposal”, “creation of a system of abstract relations”), Evaluation (with subcategories “evaluation based on internal criteria”, “evaluation based on external criteria”).

6 Methodology

6.1 Goals of the Study

The aim of the study was to determine the distribution of musical objectives planning in the affective, psychomotor, and cognitive domains during the internship of the students of elementary education in the 2019/20 academic year.

6.2 Research Questions

RQ1: What is the average number of learning objectives in lesson plans intended for distance education in music?

RQ2: What is the number of planned learning objectives in the cognitive, affective, and psychomotor domains in lesson plans for distance education in music?

RQ3: What are the differences in the numerical representation of the planned objectives in the cognitive, affective, and psychomotor domains in the lesson plans for distance education in music, depending on the year/level of study?

6.3 Sample

The research sample included 84 third-year undergraduate elementary education students who conducted distance music lessons via video explanation in pairs ($n = 42$) and 55 first-year elementary education master's students who conducted music lessons independently ($n = 55$) in elementary schools under the supervision of a general education (elementary education) teacher during a condensed two-week internship. Data were obtained from the analysis of lesson plans, 97 in total. Of these, 43 or 44.3% referred to learning a song and 54 or 55.7% of the analysed lesson plans referred to other content (listening to music, creativity, movement and dance, etc.). The structure of the sample of lesson plans by grade level, for which the lesson was intended, is as follows: 23.7% first grade, 26.8% second grade, 25.8% third grade, 19.6% fourth grade, and 4.1% fifth grade.

6.4 Measurement Instruments

In analysing the lesson plans, a checklist that first included information on the year of study/level of study, the method of instruction (distance learning, video, asynchronous; distance learning, synchronous), the content of the lesson (learning a new song; other), and the grade level (first, second, third, fourth, fifth) was used. This was followed by information on the total number of planned objectives and the number of planned objectives in the cognitive, affective and psychomotor domains.

6.5 Statistical Methods

In the study a descriptive method of empirical pedagogical research was used. In data processing, frequency distributions of variables (f , $f\%$) and some descriptive statistics (mean, median, mode, standard deviation, minimum, maximum, sum) were used. A t-test was used to compare the means.

7 Results and Discussion

The learning objectives in the lesson plans for elementary school students intended for distance learning were analysed and in continuation the results will be presented.

Table 1: Descriptive statistics for the whole set of planned objectives

N	Mean	Median	Mode	Std. Deviation	Minimum	Maximum	Sum
97	6.56	7	7	2.31	1	12	636

636 written learning objectives in 97 lesson plans were analysed, where the overall average was 6.56 learning objectives per lesson plan. The most frequent value (Mo) was 7. The maximum number of learning objectives in a lesson plan was 12 (*Table 1*).

A similar study was conducted at the Faculty of Education at the University of Ljubljana and included a sample of students and working elementary teachers who designed a total of 186 lesson plans and 2124 planned objectives. The students and teachers planned an average of 11.48 objectives in each lesson plan. It should be noted that the lesson plans were intended for traditional live face-to-face instruction in schools.

It is evident that there are significantly fewer objectives in the lesson plans for distance education. These results are not surprising and are consistent with previous findings (Maki, 2001; Pesek et al., 2020; Riley, 2009), as distance learning can rarely be as rich and varied in the number of activities compared to traditional classroom learning. It is possible that the teachers planned a smaller number of objectives because of the resources and tools available to them, in part to avoid overwhelming students in their home learning.

It should be noted that owing to the complex content dimension, the objectives were often assigned to taxonomic categories of different learning domains (affective, cognitive, psychomotor), as mentioned by Sicherl Kafol (2015). The descriptive statistics are based on the analysis of 79 lesson plans. Indeed, in 18 lesson plans, written under the guidance of teacher-mentors, there was no subdivision of objectives into domains, which is very significant. One can conclude that students in pedagogical practise/internship under the auspices of teacher-mentors in primary schools neglect the knowledge of parcelling objectives or that mentors do not require this from students because they do not do it themselves. Perhaps the reason lies in the varying methods of planning objectives in the various didactics courses in Elementary Education studies. When students begin the practicum under the

guidance of a teacher-mentor, they may feel too overwhelmed to utilise so many different types of objectives planning, so they use only one type for all subjects.

Table 2: Descriptive statistics of the numerical representation of the planned objectives in the cognitive, affective, and psychomotor domains

Learning domain	N		Mean	Median	Mode	Std.			Sum
	Valid	Missing				Deviation	Min	Max	
Cognitive	79	18	3.13	3	3	1.29	0	6	247
Affective	79	18	1.97	2	2	0.70	0	4	156
Psychomotor	79	18	2.00	2	2	1.06	0	6	158

An analysis revealed that students planned the most objectives in the cognitive domain of development (3.13 per lesson plan), followed by the psychomotor domain (2.00 per lesson plan), and the fewest in the affective domain (1.97 per lesson plan) (*Table 2*). Given the circumstances of the COVID-19 pandemic, it is understandable and consistent with the study done by Pesek et al. (2020) that most of the objectives were planned in the cognitive domain, as these are easier to plan and implement in distance learning.

Sicherl Kafol (2015) came to a different conclusion, namely higher mean scores in all the areas studied, and this suggests significant differences in the design of music objectives for live music lessons in school and distance learning. For example, an analysis of the objectives revealed that teachers planned the most objectives in the psychomotor development domain (4.75 per lesson plan), then in the cognitive domain (3.92 per lesson plan), and the fewest in the affective domain (2.81 per lesson plan). The author concludes that this is a positive shift towards active approaches to music teaching and that, at the same time, teachers are not sufficiently aware of the importance of emotional and social factors in learning. However, Sicherl Kafol (2015) attributes the greater presence of objectives in the cognitive domain to the fact that objectives in the cognitive domain are easier to plan and operationalise using Bloom’s Taxonomy, as well as easier to observe and verify.

As shown in *Table 3*, the mean number of planned objectives by domain is higher for 3rd year (1st level) students with compared to 1st year (2nd level) students in all learning domains. Using the value of the t-coefficient and the statistical significance level (Sig.), one can conclude that the number of planned objectives differed statistically significantly in the cognitive domain; it differed between elementary

education students in their 3rd year (1st level) and 1st year (2nd level), in favour of younger 3rd year elementary education students (Table 4). The difference between the means of the two groups was 0.85. In the psychomotor domain, the difference was on the verge (.05) of statistical significance and was again in favour of the 3rd year elementary education students. The difference between the means was 0.46. In the affective domain, there were no statistically significant differences between the two groups.

Table 3: Group statistics – comparison of the representation of the planned objectives by domains according to the year of study

Learning domain	Year/level of study	N	Mean	Std. Deviation
Cognitive	3 rd year/1 st level	42	3.52	1.06
	1 st year/2 nd level	37	2.68	1.40
Affective	3 rd year/1 st level	42	2.07	0.78
	1 st year/2 nd level	37	1.86	0.59
Psychomotor	3 rd year/1 st level	42	2.21	0.87
	1 st year/2 nd level	37	1.76	1.21

Table 4: Independent Samples Test – comparison of the presentation of the planned objectives by domains according to the year of study

Learning domain	Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2-tailed)	MD*	SED**	Lower	Upper
	Cognitive	3.090	0.083	3.057	77	.003	.848	.277	0.296
Affective	0.942	0.335	1.320	77	.191	.207	.157	-0.105	0.518
			1.343	75.243	.183	.207	.154	-0.010	0.513
Psychomotor	2.139	0.148	1.944	77	.056	.457	.235	-0.011	0.926
			1.905	64.495	.061	.457	.240	-0.022	0.937

* Mean Difference

** Std. Error Difference

In conclusion, the 3rd year elementary education students who undertook more detailed planning of learning objectives, when planning distance music lessons in the context of their didactics class at the university, more frequently considered the principles of balanced learning development in the cognitive, affective, and psychomotor domains. Their planning was more in-depth and detailed.

8 Conclusion

With this study, the authors implicitly wanted to draw attention to certain gaps in the distance teaching of music art, which are evident in the planning of distance teaching. Indeed, for the quality of planning and then the implementation of the learning process in music lessons, it is important to plan the learning objectives and the musical activities systematically and in a balanced way. The situation that was revealed, namely the relatively few objectives set according to the domains (and thus to the taxonomic categories), and certain differences between samples of elementary education students can be attributed to the following: the differing extent of acquired musical-professional and didactic competences between the two groups of students, as well as the fact that the 3rd year students (1st level) completed an internship under the guidance of subject didacticians at the university and, the master's students (2nd level) under the guidance of mentors at the school; the complexity of the processes and effects of music teaching (Sicherl Kafol, 2015); differences between classic teaching (Ivanuš Grmek & Javornik Krečič, 2011; Kramar, 2009) and distance learning (Kustec et al., 2020; Kastelic et al., 2021; Bowman, 2014) or e-learning (Bregar, 2001); motivation to learn (Kastelic et al., 2021); suitability of the chosen medium in distance learning (Krecenbaher Mernik, 2020); the expected lack of human interaction among students, and between teachers and students (Kung-Ming & Khoon-Seng, 2009, in Krecenbaher Mernik, 2020); the complexity of distance education compared to traditional face-to-face education (Rupnik Vec et al., 2020); limitations in dynamically adapting content and methods to an individual's learning pace and methods (El Falaki, Khalidi Idrissi & Bennani, 2010); specifics of asynchronous and synchronous teaching (Oztok et al., 2013; Kung-Ming & Khoon-Seng, 2009, in Krecenbaher Mernik, 2020); adopting a new approach as a challenge for students in education (Ruippo, 2003); improving the digital literacy of music teachers (Bohak Adam & Metljak, 2021) and students; time delay in learning singing and instruments; the difficulty of helping e.g., with the position of hands and fingers (Maki, 2001); technological barriers, problems with sound, image, and time delay (Maki, 2001; Wulf & Schinzel, 1998, Gouzouasis, 1994, in Riley, 2009); and planned and targeted work at the university with the aim of publishing video explanations on the portal Razlagamo.si (Pesek et al., 2020). The problem also manifests itself in the balanced planning of music lessons, in the lower taxonomy levels, in the training of elementary education students for teaching and conducting music lessons at a distance, and in the limits and peculiarities of this type of teaching, to all of which

further research should be devoted to gain a better insight into all this. In conclusion, the presentation of learning objectives in lesson plans for distance learning is more modest than the presentation of objectives in lesson plans for traditional live teaching in schools in all three music education objective domains studied (cognitive, affective and psychomotor).

References

- Baloian, N. A., Pino, J. A., & Hope, H. U. (2000). A Teaching/Learning Approach to CSCL. In *Proceedings of the 33rd Annual Hawaii International Conference on System Sciences* (pp. 10). <https://doi.org/10.1109/HICSS.2000.926641>.
- Bohak Adam, T., & Metljak, M. (2021). Poučevanje glasbene dejavnosti na daljavo v osnovnošolskem izobraževanju med epidemijo COVID-19 [Distance Teaching of Music in Primary School Education during the Pandemic COVID-19]. *Muzikološki zbornik*, 57(1), 229–253. <https://doi.org/10.4312/mz.57.1.229-253>.
- Bowman, J. (2014). *Online Learning in Music. Foundations, Frameworks and Practices*. Oxford University Press.
- Bregar, L. (2002). Razvojne možnosti e-izobraževanja v svetu in Sloveniji [Development of e-education in Slovenia and worldwide]. *Andragoška spoznanja*, 8(3–4), 36–41. <https://doi.org/10.4312/as.8.3-4.36-41>.
- Breznik, I. (2016). Smernice za uporabo IKT pri predmetu glasbena umetnost v osnovni šoli in glasba v gimnaziji [Guidelines for the use of ICT in Music Art in Primary School and Music in Secondary School]. *Zavod Republike Slovenije za šolstvo*. <https://www.zrss.si/digitalnknjiznica/smernice-ikt-gum/files/assets/basic-html/index.html#1>.
- Chen, Y. (2012). The effect of thematic video-based instruction on learning and motivation in e-learning. *International Journal of Physical Sciences*, 7(6), 957–965. <https://doi.org/10.5897/IJPS11.1788>.
- Drobnič, T. (2014). *Učna diferenciacija in individualizacija pri glasbeni umetnosti* [Learning differentiation and individualization in musical art]. Magistrsko delo, Univerza v Ljubljani, Pedagoška fakulteta. http://pefprints.pef.uni-lj.si/2085/1/diplomsko_delo_tina_drobnic.pdf.
- El Falaki, B., Khalidi Idrissi, M., & Bennani, S. (2010). Formative Assessment in E – learning: An Approach to Personalize Diagnosis and Adapt Learning Path. In P. Kommers & P. Isaías (Eds.), *LADIS International Conference e-Society*. International Association for Development of the Information Society. <http://www.iadisportal.org/digital-library/formative-assessment-in-e-learning-an-approach-to-personalize-diagnosis-and-adapt-learning-path>.
- Galeša, M. (1995). *Specialna metodika individualizacije* [Special individualization methodology]. Didakta.
- Ivanuš Grmek, M., & Javornik Krečič, M. (2011). *Osnove didaktike* [Basics of didactics]. Maribor: Univerza v Mariboru, Pedagoška fakulteta.
- Johnson, G.M. (2006). Synchronous and Asynchronous Text-Based CMC in Educational Contexts: A Review of Recent Research. *TechTrends*, 50(46), 46–53.
- Johnson, S. D., & Aragon, S. R. (2003). An Instructional Strategy Framework for Online Learning Environments. *New Directions for Adult and Continuing Education*, 2003(100), 31–43. <https://doi.org/10.1002/ace.117>.
- Kastelic, N., Kmetič, E., Lazič, T., & Okretič, L. (2021). *Kako motivirati učence pri poučevanju na daljavo?* [How to motivate students in distance learning?] Priročnik za učitelje. Univerza v Ljubljani: Oddelek za psihologijo, Filozofska fakulteta.

- Kennedy, D. (2015). *Pisanje in uporaba učnih izidov: praktični vodnik* (D. Grčar, Trans.) [Writing and using learning outcomes: a practical guide]. Center RS za mobilnost in evropske programe izobraževanja in usposabljanja: Univerza v Mariboru. (Original work published 2007).
- Kopačin, B. (2020). Glasbene didaktične igre in glasbeno-razvojni dosežki prvošolcev [Didactic Musical Games and Music Development Achievements of Year One pupils]. *Revija za elementarno izobraževanje*, 13(1), 89–111. <https://doi.org/10.18690/rei.13.1.89-111.2020>.
- Kramar, M. (2009). *Pouk* [Lessons]. Educa.
- Krecenbaher Mernik, K. (2020). *Poučevanje tehnike in tehnologije na daljavo* [Distance teaching of technical studies]. Magistrsko delo, Univerza v Mariboru: Fakulteta za naravoslovje in matematiko. <https://dk.um.si/IzpisGradiva.php?id=78017&lang=slv>.
- Kumar, D. D. (2010). *Approaches to Interactive Video Anchors in Problem-based Science Learning*. 19(1), 13–19. <https://doi.org/10.1007/s10956-009-9154-6>
https://www.researchgate.net/publication/226922334_Approaches_to_Interactive_Video_Anchors_in_Problem-based_Science_Learning.
- Kustec, S., Logaj, V., Krek, M., Flogie, A., Truden Dobrin, P., & Ivanuš Grmek, M. (2020). *Vzgoja in izobraževanje v Republiki Sloveniji v razmerah, povezanih s COVID-19, Modeli in priporočila* [Methods and recommendations in education in Slovenia, related to COVID-19]. Ministrstvo za izobraževanje, znanost in šport ter Zavod Republike Slovenije za šolstvo. https://www.zrss.si/pdf/modeli_in_priporocila.pdf.
- Maki, J. (2001). *Is It Possible to Teach Music in a Classroom from a Distance of 1000 km? Learning Environment of Music Education Using ISDN-Videoconferencing*. <https://eric.ed.gov/?id=ED466191>.
- Mosbrucker, M. (2007). Študija primera izvedbe in evalvacije pouka z uporabo sodobne informacijsko – komunikacijske tehnologije [Using modern ICT technology to implement and evaluate educational process: A case study]. *Sodobna pedagogika*, 58(3), 220–236.
- Overholser, J. C. (2018). Guided Discovery: A Clinical Strategy Derived from the Socratic Method. *International Journal of Cognitive Therapy*, 11, 124–139.
- Oztok, M., Zingaro, D., Brett, C., & Hewitt, J. (2013). Exploring asynchronous and synchronous tool use in online courses. *Computers & Education* 60(1), 87–94. <https://doi.org/10.1016/j.compedu.2012.08.007>.
- Pesek, I., Zmazek, B., & Lipovec, A. (2020). *Video razlage kot učinkovit element izobraževanja v COVID-19 situaciji* [Video explanations as a useful digital source of education in the COVID-19 situation]. <https://doi.org/10.31219/osf.io/eypzm>.
- Piccoli, G., Ahmad, R., & Ives, B. (2001). Web-based virtual learning environments: a research framework and a preliminary assessment of effectiveness in basic IT skills training, *MIS Quarterly* 25(4), 401–426.
- Riley, P. E. (2009). Video-conferenced music teaching: challenges and progress. *Music Education Research*, 11(3), 365–375. <https://doi.org/10.1080/14613800903151580>.
- Rotar Pance, B., & Boham Adam, T. (2019). Vključevanje informacijsko-komunikacijske tehnologije v didaktično usposabljanje bodočih učiteljev glasbe [Integration of ICT in the didactic training of future music teachers]. In J. Rugelj & V. Ferk Savec (Eds.). *Inovativna didaktična uporaba informacijsko komunikacijske tehnologije v študijskem procesu* (pp. 263–276). Univerza v Ljubljani.
- Rugelj, J. (2014). *Didaktične igre v izobraževanju* [Didactic games in education]. [Video]. http://www.pef.uni-lj.si/fileadmin/Datoteke/Posvet/Sekcije/Plenarni/Rugelj_Didakti%C4%8Dne_igre_Plenarni_del.pdf.
- Ruippo, M. (2003). *Music Education Online*. <http://ruippo.fi/lisensiaatintyo/downloads-2/downloads-14/files/musiceducationonline.pdf>.
- Rupnik Vec, T., Slivar, B., Zupanc Grom, R., Preskar, S., Mithans, M., Kregar S., Ivanuš Grmek, M., Bevc, V., Holcar Brunauer, A., Musck Lešnik, K., Logaj, V., Noliml, F., Pevec Semec, K., Bačnik, A., Košnik, P., & Nedeljko, N. (2020). *Izobraževanje na daljavo v času epidemije COVID-19* [Distance learning during the COVID-19 epidemic]. <https://www.zrss.si/novice/izobrazevanje-na-daljavo-v-casu-epidemije-covid-19-v-sloveniji/>.

- Sicherl Kafol, B. (2008). Medpredmetno povezovanje v osnovni šoli [Cross-curricular integration in primary school]. *Didakta*, 18(19), 7–9.
- Sicherl Kafol, B. (2015). *Izbrana poglavja iz glasbene didaktike* [Selected chapters from music didactics]. Univerza v Ljubljani, Pedagoška fakulteta.
- Strmčnik, F. (1993). *Učna diferenciacija in individualizacija v naši osnovni šoli* [Learning differentiation and individualization in our primary school]. Zavod Republike Slovenije za šolstvo in šport.
- Strmčnik, F. (2001). *Didaktika: osrednje teoretične teme* [Didactics: Central theoretical topics]. Znanstveni inštitut Filozofske fakultete.
- Thomson, L. D. (2010). Beyond the Classroom walls: Teachers' and students' perspectives on how online learning can meet the needs of gifted students. *Journal of Advanced Academics*, 21(4), 662–712. <https://doi.org/10.1177/1932202X1002100405>.
- Zhang, D., Zhou, L., Briggs, R. O., & Nunamaker J. F. (2006). Instructional video in e-learning: Assessing the impact of interactive video on learning effectiveness. *Information & Management*, 43(1), 15–27. <https://doi.org/10.1016/j.im.2005.01.004>.

