A MONGOLIAN TEACHER'S EXPERIENCE AND METHOD IN DEVELOPING STUDENTS' SKILLS IN RECOGNIZING, READING, AND WRITING MUSIC NOTATION THROUGH THE 'RELAY READING' METHOD

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ABSTRACT

In the twenty-first century, social and economic changes have increased the importance of preparing individuals with the knowledge and skills necessary to keep pace with society and achieve success. Nowadays, a wide range of competencies, including critical thinking, creativity, problem solving, communication skills, social-emotional skills, digital literacy, and music literacy is increasingly required in the workplace. Consequently, education is mainly focused on fostering the skills needed to apply knowledge in real-life contexts, rather than only emphasizing the acquisition of scientific knowledge. Therefore, in providing fundamental music theory education to students majoring in Pre-school Education, instruction aims to build on students' prior music education knowledge while developing their music notation knowledge, notation reading and writing skills, their ability to listen to and imitate musical pitch and timbre, singing and instrumental performance skills, correct vocal exercises, proper breath control, instrumental performance techniques, aesthetic appreciation, and musical understanding. In this study, the "Relay Reading" method, which is widely used in Mongolian language and literature classes, was applied to develop students' music notation recognition, reading, and writing skills through a simple and time-efficient approach. The study was conducted in three stages: identifying the effectiveness of the method, developing and implementing experimental instructional materials, and evaluating the results.The Relay Reading method is a teaching method that allows numerous students to take part in reading within a single lesson while promoting active engagement. In this method, each student carefully follows the previous reader and continues reading from the point at which the previous student left off (Tserendagva, Ts., 1983, Methods of Teaching Mongolian Language in Primary School, p. 132). The study involved a total of 35 freshman students majoring in Teacher and Pre-school Education who took a Music Theory course at the Arkhangai branch school of the Mongolian State University of Education. To determine the students' initial level of music theory competency, they completed tasks related to music notation recognition, notation writing, notation reading, and performance based on musical notation. The analysis demonstrated that 67.1 percent of the students lacked an elementary level of music notation, as they were unable to distinguish whole, half, quarter, eighth, and sixteenth notes. They also exhibited incorrect identification of note values, inaccurate performance of rhythmic values, incorrect notation writing, and tended to guess note names.With the aim of improving fundamental music theory competencies, 16 experimental practical sessions were designed and implemented within the Music Theory program. The Relay Readingmethod, which is widely used in Mongolian language and literature classes, was adopted as the instructional approach. The results of the pre-test, formative assessments, and post-test showed that use of the Relay Reading method was effective in developing students' fundamental music theory competencies. Implementing the Relay Reading method in the music education course helped improve students' music notation recognition, reading notation, writing, and playing skills, while also promoting active participation and collaborative learning among all students.

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KEYWORDS

Music education; musical notes; student development

1. INTRODUCTION

The aim of the Music Education course is to develop competent individuals who are able to perceive, experience, understand, and apply their understanding of phenomena in the natural and social environments through music. Therefore, the content and methodology of music education are designed to develop students' musical knowledge and skills, including knowledge of musical notation, the ability to read and write notation, listening to and reproducing musical pitch and timbre through singing, proper vocal exercises and singing techniques, appropriate breath control, methods of playing musical instruments, aesthetic sensitivity, cognitive development, and the enhancement of practical music-making skills.

Traditionally, instruction has focused on a range of exercises and tasks, including:

- Writing and memorizing the seven basic musical notes on the staff using the treble clef, as well as recognizing and reading them by sight.
- Distinguishing and identifying whole, half, quarter, eighth, and sixteenth notes through various exercises and assignments.
- Practicing the counting and conducting of notes in 2/4, 3/4, and 4/4 time signatures
- Practicing rhythmic clapping and tapping.
- Conducting rhythmic dictation using musical notation.
- Identifying and memorizing the positions of the seven musical notes on a keyboard instrument.
- Reading the seven-note scale and completing related exercises and assignments.

The extent to which children participate in learning activities influences the level of enjoyment they experience and motivates them to engage in learning more actively, effectively, and productively. Thus, participation provides a foundation for active collaborative learning. One of the fundamental requirements of motivation is to stimulate children's desire, interest, and willingness to learn something new and to create conditions in which this motivation can be sustained throughout the learning process. As a result, the external objectives of learning can gradually become the learner's internal goals, thereby generating intrinsic motivation. Motivation is an internal force that drives and guides an individual toward action and is closely associated with the individual's personal engagement. Therefore, teachers need to effectively manage and support students' motivation in order to guide them toward successful learning outcomes. As stated by Purevdorj, "There is no doubt that increasing learners' motivation leads to improved learning outcomes..." (Purevdorj, *Management of Teaching*, p. 263).

Various forms of reading, including choral reading, representative reading, role reading, selective reading, relay reading, and follow-along reading, are primarily used in Mongolian language and literature classes to develop students' reading skills. These include:

REPRESENTATIVE READING: One student reads by representing all of the characters in a literary work.

SELECTIVE READING:A student selects and reads together different passages related to the events or actions of a particular character in a literary work.

FOLLOW-ALONG READING: The teacher provides a model reading, adjusting stress, pauses, intonation, rhythm, vocal quality, pitch, and other expressive elements according to the events and meaning of the literary work, while the students follow and read along.

RELAY READING: This method provides an opportunity for many students to participate in reading during a single lesson. It also contributes to increasing students' engagement and attention. Each subsequent student must pay attention to where the previous student has stopped and then continue reading from that point. (Tserendagva, Ts., 1983, *Methods of Teaching Mongolian Language in Primary School*, p. 132)

Based on these approaches, it is considered possible to use various forms of reading to develop students' abilities and habits in accurately recognizing, reading, and writing musical notation. Among these forms of reading, the present study introduces the results of research that used **Relay Reading** to develop students' abilities to recognize, read, and write musical notation.

MAIN PART

RATIONALE FOR THE STUDY

1. Requirements of the General Education School Curriculum

Within the "Arts" subject area of the general education school curriculum, which includes primary and basic education, students are expected to acquire the following knowledge and skills:

- Singing using musical notation;
- Accompanying songs and melodies according to their musical characteristics;
- Playing simple musical instruments, among other skills.
- ***Expected Learning Outcomes for Students Major-ing in Early Childhood Education***
- Students majoring in Pre-school teachers are expected to acquire the following knowledge and skills through the "Music Education" course:
- Recognizing and distinguishing musical terms, symbols, and notation, and explaining their uses;
- Learning to read musical notation on keyboard and other musical instruments;
- Learning to plan the structure and organization of music lessons;
- Learning to play children's songs, simple melodies, and appropriate accompaniments on keyboard instruments.

Therefore, to identify the level of students' musical knowledge, a study was conducted among **3**5 first-year students majoring in Pre-school Education at the Arkhangai branch school of the Mongolian State University of Education. The students were asked to complete the following assessment, and their responses were subsequentlycollected and analyzed.

Table1. Performance-based rubric evaluation criteria

№	Assessment criteria	Good -5 points (17-20 points)	Moderate- 4 points (10-16 points)	Needs to improve2-points (Less than 9 points)
1	Sheet music recognition	Correctly identify and name the notes written on the staff without errors (small octave, one-line octave, and two-line octave)	Identify and name the notes written on the staff with a few errors.(small octave, one-line octave, and two-line octave)	Confuse the names of the notes written on the staff or be unable to identify them. (small octave, one-line octave, and two-line octave)

2	Sheet music reading	Read the given notes correctly without errors.	Make a few errors when reading the given notes.	Read most of the given notes incorrectly.
3	Sheet music writing	Correctly write the notes of the small, one-line, and two-line octaves on the staff.	Make a few errors when writing the notes of the small, one-line, and two-line octaves on the staff.	Make several types of errors when writing the notes of the small, one-line, and two-line octaves on the staff (e.g., confusing whole, half, eighth, and sixteenth notes, or placing notes incorrectly on the staff).
4	Playing from sheet music	Perform simple melodies, scales, and children's songs accurately on the instrument without errors (using the correct fingering, reading the notes correctly, and playing with both hands simultaneously)	Make a few errors when playing simple melodies, scales, and children's songs on the instrument.(using the correct fingering, reading the notes correctly, and playing with both hands simultaneously)	Make errors when playing simple melodies, scales, and children's songs on the instrument (e.g., incorrect fingering, difficulty reading the notes correctly, or playing with both hands).

Students' knowledge and skills are assessed according to the above criteria using the following indicators.

Pre– Experiment

Table 2. Indicators of knowledge and skills in recognizing musical notes

	Frequency	Percent	Valid Percent	Cumulative Percent
Good	6	17.1	17.1	17.1
Moderate	11	31.4	31.4	48.6
Needs to improve	18	51.4	51.4	100.0
Total	35	100.0	100.0	

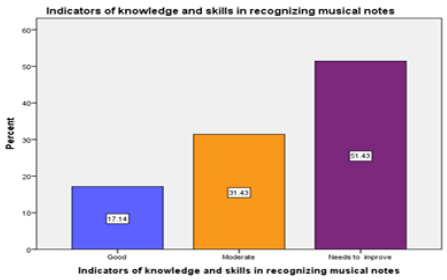


Table 3. Knowledge and skills indicator for reading musical notes

	Frequency	Percent	Valid Percent	Cumulative Percent
Good	4	11.4	11.4	11.4
Moderate	8	22.9	22.9	34.3
Needs to improve	23	65.7	65.7	100.0
Total	35	100.0	100.0	

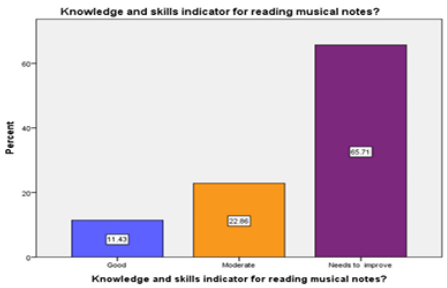


Table 4. Musical Notation Writing Knowledge and Skills Indicators:

Indicators:

	Frequency	Percent	Valid Percent	Cumulative Percent
Good	4	11.4	11.4	11.4
Moderate	7	20.0	20.0	31.4
Needs to improve	24	68.6	68.6	100.0
Total	35	100.0	100.0	

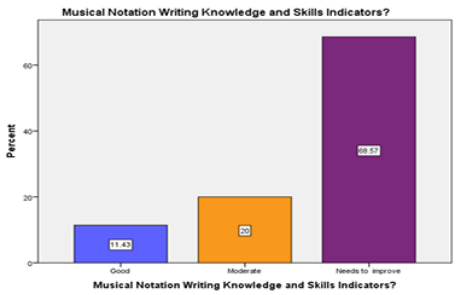
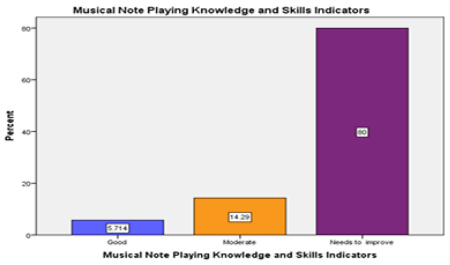


Table 5. Musical Note Playing Knowledge and Skills Indicators

	Frequency	Percent	Valid Percent	Cumulative Percent
Good	2	5.7	5.7	5.7
Moderate	5	14.3	14.3	20.0
Needs to improve	28	80.0	80.0	100.0
Total	35	100.0	100.0	



The study results among the students show that their skills in sheet music recognition, reading, and writing are insufficient. (Good-11.4%, Average-22%, Needs improvement-67%)

The most essential thing for learning to play an instrument is a basic knowledge of music theory - specifically, the ability to recognize, read, and write sheet music. However, students who enroll in the Pre-school Education teacher program at our university lack initial knowledge of music education, as evidenced by the study results above.

Therefore, it was considered more advantageous to use the "Relay Reading" technique creatively in combination with other teaching methods to enhance students' engagement, promote collaborative learning, help them memorize sheet music quickly in a short period of time, and build self-confidence. Accordingly, this approach was implemented in class and its outcomes were evaluated.

Originality of the study

Use the "Relay Reading" technique in the "Music Education" course to boost students' engagement and participation, while developing their skills in recognizing, reading, writing, and playing sheet music.

Research Methodology

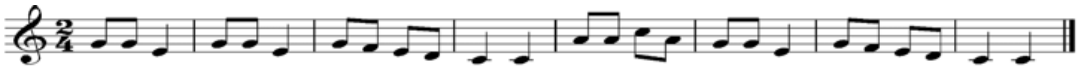
- Observation method
- Experimental method

Research Process and Results

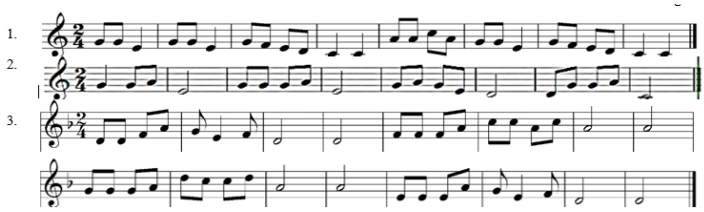
During the study, the "Relay Reading" technique was combined with other teaching methods, and students practiced reading simple melodies from sheet music prior to the seminars.

Phase 1: Conducted during seminars 3 to 5 of the Music Education 1 course.

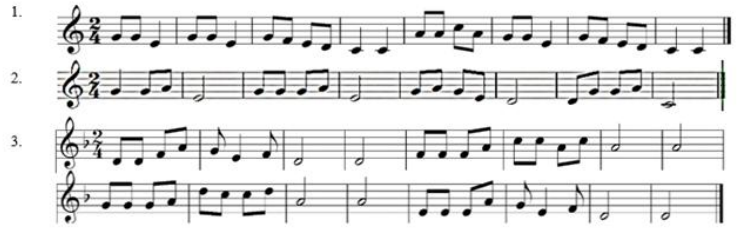
The teacher conducted the relay reading exercise measure by measure using simple sheet music for songs in 2/4 time, subsequently modified and refined the process.

Figure1

Phase 2: Conducted during seminars 6 to 9 of the Music Education 1 course.

The teacher divided the students into groups based on their proficiency levels. They practiced reading simple melodies for 3 songs using the relay reading technique, combined with clapping along to the rhythm.

Figure2

Phase 3: Conducted during seminars 10 to 13 of the Music Education 1 course.

Students were divided into groups based on their proficiency levels. They practiced sight-singing through simple musical notation for songs, clapped along to the rhythm, and played keyboard instruments.

Figure3

Phase 1: Experimental results show that positive outcomes were observed, such as functioning as an effective motivator, boosting students' self-confidence, and trying to create equal opportunities for all students to participate actively.

Phase 2: Some students' anxiety decreased, while overall student engagement increased and proficiency in reading sheet music aloud using the relay reading technique improved.

Phase 3: Students became capable of recognizing musical notes on the staff at sight. They learned to sight-sing melodies from sheet music, thereby acquiring skills to combine reading notes with rhythm and melody. Consequently, they were able to play preschool children's songs on keyboard instruments from sheet music during the "Children's Music" course.

ChallengesDuring Implementation

Phase 1: Considerable difficulties were faced when teaching students to read sheet music during seminar lessons. Students who struggled to master the relay reading technique felt nervous, andexperiencedfeelingsof embarrassment regarding their inability to recognize notes.

Phase 2: During seminars 6 to 9, students' participation improved, leading to increased focus, concentration, and responsibility.
After conducting the experimental lessons, a post-assessment survey was administered to evaluate students' skills in recognizing, reading, writing, and playing sheet music:

After experiment

Table 6. Indicators of knowledge and skills in recognizing musical notes:

	Frequency	Percent	Valid Percent	Cumulative Percent
Good	12	34.3	34.3	34.3
Moderate	15	42.9	42.9	77.1
Needs to improve	8	22.9	22.9	100.0
Total	35	100.0	100.0	

Table 7**.** Knowledge and skills indicator for reading musical notes

	Frequency	Percent	Valid Percent	Cumulative Percent
Good	11	31.4	31.4	31.4
Moderate	13	37.1	37.1	68.6
Needs to improve	11	31.4	31.4	100.0
Total	35	100.0	100.0	

Table 8. Musical Notation Writing Knowledge and Skills Indicators:

	Frequency	Percent	Valid Percent	Cumulative Percent
Good	9	25.7	25.7	25.7
Moderate	10	28.6	28.6	54.3
Needs to improve	16	45.7	45.7	100.0
Total	35	100.0	100.0	

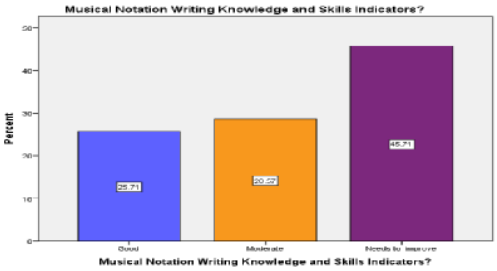


Table 9. Musical Note Playing Knowledge and Skills Indicators

Table 9.**Musical Note Playing Knowledge and Skills Indicators**

	Frequency	Percent	Valid Percent	Cumulative Percent
Good	10	28.6	28.6	28.6
Moderate	11	31.4	31.4	60.0
Needs to improve	14	40.0	40.0	100.0
Total	35	100.0	100.0	

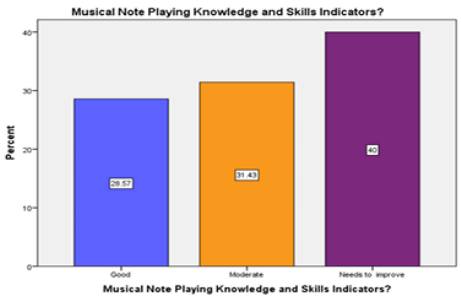


Table 10. Paired Samples Test

Pair	Paired Variables	Paired Differences Mean	t		df	Sig. (2-tailed)
Pair 1	Pre – Experiment Indicators of knowledge and skills in recognizing musical notes. - After experiment Indicators of knowledge and skills in recognizing musical notes.	.457	5.351		34	.000
Pair 2	Pre – Experiment Knowledge and skills indicator for reading musical notes - After experiment Knowledge and skills indicator for reading musical notes	.543	6.354		34	.000
Pair 3	Pre – Experiment Musical Notation Writing Knowledge and Skills Indicators - After experiment Musical Notation Writing Knowledge and Skills Indicators	.371	4.482		34	.000
Pair 4	Pre – Experiment Musical Note Playing Knowledge and Skills Indicators - After experiment Musical Note Playing Knowledge and Skills Indicators	.629	5.760		34	.000

The statistical analysis revealed statistically significant improvements in students' performance across all four assessed skill areas following the experimental lesson: note recognition, note reading, note writing, and playing from notation. Specifically, significant differences were observed in note recognition ($t=5.351, p<.001$), note reading ($t=6.354, p<.001$), note writing ($t=4.482, p<.001$), and playing from notation ($t=5.760, p<.001$). These findings indicate that students' post-test scores were significantly higher than their pre-test scores across all four skill areas. Overall, the results suggest that the instructional approach implemented during the experimental lesson was associated with meaningful improvements in students' abilities to recognize, read, write, and perform musical notation.

The findings indicate that the implementation of the instructional methodology in the experimental class was associated with significant improvements in students' theoretical knowledge and practical skills related to musical notation. In particular, students demonstrated statistically significant gains in their abilities to recognize, read, write, and perform music from notation following the intervention. These results suggest that the instructional methodology contributed positively to the development of students' musical notation skills and enhanced their ability to apply notation knowledge in practical musical performance.

Table 11. Paired Samples Correlations

Pair	Paired Variables	N	Correlation	Sig.
Pair 1	Pre – Experiment Indicators of knowledge and skills in recognizing musical notes. **&** After experiment Indicators of knowledge and skills in recognizing musical notes.	35	.780	.000
Pair 2	Pre – Experiment Knowledge and skills indicator for reading musical notes **&** After experiment Knowledge and skills indicator for reading musical notes	35	.783	.000
Pair 3	Pre – Experiment Musical Notation Writing Knowledge and Skills Indicators **&** After experiment Musical Notation Writing Knowledge and Skills Indicators	35	.809	.000
Pair 4	Pre – Experiment Musical Note Playing Knowledge and Skills Indicators **&** After experiment Musical Note Playing Knowledge and Skills Indicators	35	.632	.000

The correlation analysis revealed strong positive relationships between students' pre-test and post-test performance across the assessed skill areas, with correlation coefficients ranging from r=.632 to r=.809. These findings indicate that students who demonstrated higher levels of performance in the pre-test tended to maintain relatively higher levels of performance in the post-test, suggesting a consistent pattern of performance across the assessment periods.

Furthermore, the correlation coefficients were statistically significant for all paired measures ($p<.001$). This indicates that the observed relationships between pre-test and post-test scores were statistically significant and unlikely to have occurred by chance. Overall, the findings demonstrate a strong and consistent association between students' pre-test and post-test performance across the assessed musical notation skills.

CONCLUSION

- Using the "Relay Reading" technique in the "Music Education" course had significant advantages, including developing students' skills in sheet music recognition, reading, writing, and sight-playing, while enhancing individual student engagement and encouraging collaborative learning.
- It was observed that students' self-confidence was fostered, their active participation in lessons improved in a short period of time due to increased motivation.
- Students' overall skills in sheet music recognition, reading, writing, and sight-playing increased by an average of 28.1%.

REFERENCES

[1] Purevdorj, Management of Teaching, pp. 263
[2] Tserendagva, Ts., (1983) Methods of Teaching Mongolian Language in Primary School, p. 132
[3] Batsukh, B., & Batjargal, J. (1991). Teaching methodology of music. Ulaanbaatar.
[4] Ganbold, G. (2003). Songs in the works of Mongolian composers. Ulaanbaatar.
[5] Ichinkhorloo, Sh. (2010). Theory and methodology of higher education. Ulaanbaatar.
[6] Janchiv, D. (1999). Basic knowledge of music theory. Ulaanbaatar.
[7] Janchiv, D. (2007). Fundamentals of elementary music theory. Ulaanbaatar.

[8] Lkhagvasuren, J. (1986). Methodology of music education for preschool children. Ulaanbaatar.
[9] Ochirbat, Ts., & Tserennadmid, L. (2013). Exercises in music theory. Arkhangai.
[10] Oyunbileg, Ch. (2006). Methodology of music education. Ulaanbaatar.
[11] Purevdorj, Ch. (2020). Pedagogical management. Ulaanbaatar.
[12] Purevsuren, D., & Chimedlkham, Ts. (2000). Technological innovation in music lessons. Ulaanbaatar.
[13] Tserendagva, Ts.,& Puntsag, D. (1983). Methodology of teaching the Mongolian language in primary grades. Ulaanbaatar.
[14] Tserennadmid, L. (2025). Music theory. Arkhangai.
[15] Erdenebat, Sh. (1971). Textbook of music theory. Ulaanbaatar