THE DEVELOPMENT OF A PIANO TRAINING COURSE BASED ON THE TASK-DRIVEN METHOD TO IMPROVE PIANO PLAYING SKILLS FOR UNDERGRADUATE STUDENTS

CHEN CHEN

A thesis submitted in partial fulfillment of the requirements for
Master of Education in Curriculum and Instruction
Academic Year 2024

Thesis:	The Development of a Piano Training Course Based on the Task-Driven Method to Improve Piano Playing Skills for Undergraduate Students
Author:	Chen Chen
Program:	Curriculum and Instruction
Advisor Committee:	Dr.Phenporn Thongkamsuk
Advisor Committee:	Assistant Professor Dr.Supaporn Srihamee

Bansomdejchaopraya Rajabhat University approved this thesis paper in partial fulfillment of the requirements for the Master of Education Program in Curriculum and Instruction

..... Dean of Graduate School

(Assistant Professor Dr.Nukul Sarawong)

Committees:

..... Chairman

(Associate Professor Dr.Jittirat Saengloetuthai)

..... Committee

(Dr.Phenporn Thongkamsuk)

..... Committee

(Assistant Professor Dr.Supaporn Srihamee)

..... Committee

(Associate Professor Dr.Jittawisut Wimuttipanya)

..... Committee and Secretary

(Assistant Professor Dr.Tanaput Chancharoen)

Thesis	**The development of a piano training course based on the Task-Driven Method to improve piano playing skills for undergraduate students**
Author	**Chen Chen**
Program	**Curriculum and Instruction**
Major Advisor	**Dr.Phenporn Thongkamsuk**
Co-advisor	**Assistant Professor Dr.Supaporn Srihamee**
Academic Year	**2024**

ABSTRACT

The objectives of this research were: 1) to Develop of a Piano Training Course Based on the Task-Driven Method to Improve Piano Playing Skills, and 2) to compare Piano Playing Skills of students before and after implementing the Piano Training Course Based on the Task-Driven Method. The sample group is 30 students enrolled Undergraduate Students in the early childhood program during the first semester of the 2024 academic year at Chongqing Media Vocational College. They were selected through cluster random sampling. The Research Instruments include 1) Piano Training Course Based on the Task-Driven Method and 2) piano playing skills test. The data were statistically analyzed, and the standard deviation, and t-test for dependent samples.

The results revealed the following;

1. Piano Training Course Based on the Task-Driven Method incorporates key elements such as objectives, content, structure, time, learning activities, resources and materials, and assessment and evaluation to method consists of 5 steps: Task Identification, Task Design and Planning, Task Implementation, Reflection and Evaluation, and Reinforcement and Refinement

2. After the Piano Training Course Based on the Task-Driven Method, students' Piano Playing Skills are significantly higher than before the teaching.

Keywords: Piano Training Course, Task-Driven Method, Piano Playing Skills

Acknowledgements

I would like to express my sincere gratitude to everyone who has supported and assisted me throughout the journey of completing this dissertation.

First, my deepest thanks go to my Advisor, Dr.Phenporn Thongkamsuk, for their invaluable guidance from topic selection to refining ideas and through the revision process. Their support helped me navigate challenges with clarity and direction.

I also wish to thank my friends for their emotional support and encouragement during difficult times. The moments of joy we shared were a welcome break and kept me motivated.

I am profoundly grateful to my family, whose unwavering support has been my pillar of strength. Their trust and encouragement helped me stay focused and determined throughout this journey.

I would like to extend my thanks to all the professors who participated in the review and defense of my dissertation. Your insightful feedback has contributed to the improvement of this work.

Finally, I appreciate everyone who has been part of this academic journey. Your support has filled this experience with strength and motivation, and I will continue to move forward with deep gratitude

Chen chen

Contents

Contents (Continued)

List of Figures

List of Tables

Chapter 1
Introduction

Rationale

The ability to play the piano proficiently is a crucial skill for undergraduate music students, as it not only enhances their overall musicianship but also supports various aspects of music education, performance, and pedagogy (Hallam, 2006). However, traditional piano training methods often emphasize rote learning, technical exercises, and repetitive practice, which may not sufficiently address the cognitive, affective, and psychomotor domains necessary for effective piano performance (Lehmann, Sloboda, & Woody, 2007). In response to these challenges, this study aims to develop a piano training course based on the task-driven method to improve piano playing skills for undergraduate students.

The task-driven method emphasizes learning through meaningful tasks that simulate real-life music performance situations. This approach encourages students to engage with musical pieces contextually, fostering a deeper understanding of rhythm, melody, harmony, and expression. Through tasks such as collaborative ensemble work, sight-reading challenges, and performance simulations, students develop critical thinking, problem-solving, and adaptive learning skills. The proposed piano training course will be structured around progressively complex tasks that target key piano skills, including finger dexterity, harmonic understanding, and expressive performance. Each task will be accompanied by clear objectives, guidelines, and assessment criteria to ensure that students can monitor their progress and receive constructive feedback (Anderson, Krathwohl, & Bloom, 2001). Additionally, the course will incorporate reflective practices to help students evaluate their learning strategies and identify areas for improvement by integrating the task-driven method into piano training, this research seeks to enhance students' piano playing skills while promoting active, self-directed learning. The findings from this study will contribute to the development of more effective, engaging, and learner-centered piano education practices, ultimately supporting students' academic and professional success in music.

Furthermore, this method supports intrinsic motivation by setting clear, attainable goals that align with students' interests and professional aspirations. Research has shown that learners who participate in task-driven instruction exhibit higher engagement levels, improved self-regulation, and better performance

outcomes compared to those using traditional, drill-based methods (Ellis, 2003; Zimmerman, 2002). The course design will incorporate a variety of tasks with increasing complexity to build foundational skills while gradually introducing advanced techniques.

Moreover, research indicates that task-based approaches improve student engagement, autonomy, and skill development in various educational contexts (Willis & Willis, 2007). In music education, tasks designed around real-world applications, such as accompanying a vocalist or preparing for a recital, provide students with contextualized learning experiences that bridge the gap between theory and practice (McPherson & Gabrielsson, 2002). However, many students face difficulties in mastering piano skills due to a variety of challenges. These include insufficient prior musical knowledge, lack of effective practice strategies, performance anxiety, and limited access to personalized feedback (Lehmann et al., 2007). Without proper instructional support and task design, students may struggle to connect theoretical knowledge with practical application, leading to frustration and diminished motivation. Addressing these issues requires a shift from traditional methods to task-driven approaches that cater to diverse learning needs and encourage active, problem-solving engagement. Tasks must be carefully crafted to offer a balance of challenge and support, ensuring that students experience both success and growth throughout their learning journey. Additionally, the integration of reflective practices, such as self-assessment journals and peer feedback sessions, will allow students to monitor their progress and adjust their practice strategies accordingly. This reflective process aligns with the principles of metacognitive learning, which are essential for long-term skill retention and transferability (Anderson, Krathwohl, & Bloom, 2001).

In summary, the development of a piano training course based on the task-driven method offers a promising avenue for enhancing undergraduate students' piano playing skills. By emphasizing meaningful tasks, active engagement, and reflective practices, this study aims to contribute valuable insights to the field of music education.

Objectives(s)

1. To Develop of a Piano Training Course Based on the Task-Driven Method to Improve Piano Playing Skills for Undergraduate Students

2. To compare Piano Playing Skills of students before and after implementing the Piano Training Course Based on the Task-Driven Method.

Research Hypothesis

After the implementation of Training Course Based on the Task-Driven Method, the students ' development Piano Playing Skills has been obviously.

Scope of the Research

Population and the Sample Group

Population

There are 120 students enrolled Undergraduate Students in the early childhood program during the first semester of the 2024 academic year at Chongqing Media Vocational College.

The Sample Group

There are 30 students enrolled Undergraduate Students in the early childhood program during the first semester of the 2024 academic year at Chongqing Media Vocational College. They were selected through cluster random sampling, representing a mix of low, medium, and high abilities.

The Variable

Independent Variable: Piano Training Course Based on the Task-Driven Method

Dependent Variable: Piano Playing Skills

Content

The course Piano Training Course Based on the Task-Driven Method to effectively enhance students' Piano Playing Skills. It is thoughtfully structured into four comprehensive parts, totaling 12 hours of learning.

Chapter 1 Lecture presentation	(3 hours)
Chapter 2 Skills demonstration in teaching	(3 hours)
Chapter 3 Piano Skills Demonstration	(3 hours)
Chapter 4 Vocal Skills Demonstration	(3 hours)

Time

The research period is from October 2024 to February 2024 and is divided into the following stages:

1. Develop proposal research in October 2024
2. Modified and completed Revise and complete the course plan according to the learning method of Problem-based Learning in November 2024.
3. Experimental studies will be conducted from November 2024
4. The formal study will be conducted in December 2024.

5. Summarize the research and complete the research paper, which will be published in February 2025.

Advantages

1. The development of a task-driven piano training course will improve students' piano playing skills and foster active learning, boosting their confidence and engagement in music education. By focusing on task-oriented challenges, students will learn to approach music with critical thinking and creativity, enhancing their overall musical abilities.

2. The research will provide valuable insights for instructors to enhance their teaching methods and offer more effective, personalized support to students. By understanding the impact of the task-driven method, teachers can better tailor their approaches to meet the unique needs of each student, ensuring more effective learning outcomes.

3. For schools, the findings will contribute to the development of innovative and high-quality music education programs, enhancing the institution's reputation for delivering effective learning experiences. The incorporation of a task-driven method can also attract prospective students and improve the school's standing in the field of music education. Furthermore, it can lead to the creation of a progressive and forward-thinking curriculum that aligns with modern teaching practices.

Definition of Terms

Piano Training Course Based on the Task-Driven Method refers to a piano training program designed to develop students' piano playing skills using a learning method that focuses on having students engage in specific tasks or assignments. This method incorporates key elements such as objectives, content, structure, time, learning activities, resources and materials, and assessment and evaluation to ensure an effective and comprehensive learning experience. Each task is designed to be appropriate for the students' level of skills and development, aiming to enhance effective learning and promote problem-solving skills, creative thinking, and the application of skills in real-life situations. The method consists of 5 steps: Task Identification, Task Design and Planning, Task Implementation, Reflection and Evaluation, and Reinforcement and Refinement, as outlined below.

Step 1 Task Identification – Clearly define the task or learning objective. This step involves selecting a specific skill or concept to be learned, which will guide the entire learning process and align with the goal of improving students' piano playing skills.

Step 2 Task Design and Planning – Design tasks that are relevant, meaningful, and appropriately challenging for the learners. This includes breaking the task down into manageable parts and planning the resources and materials needed, ensuring the tasks are tailored to the students' level of expertise.

Step 3 Task Implementation – Students engage with the task, applying their knowledge and skills to complete it. During this phase, instructors provide guidance and support to ensure that students are applying the correct techniques and strategies to improve their piano skills.

Step 4 Reflection and Evaluation – After completing the task, students reflect on their learning experience. This step helps them identify what they learned, how they approached the task, and what can be improved. Evaluation can be both self-assessment and instructor feedback, allowing students to gain insights into their progress and areas for improvement in their piano playing.

Step 5 Reinforcement and Refinement – Based on feedback, students refine their approach, which encourages continuous improvement. The instructor may give additional challenges or tasks to reinforce the learning process, helping students strengthen their piano skills over time.

Piano Playing Skills refers to the overall proficiency and ability of a pianist to perform and express music effectively on the piano. It encompasses a range of technical, cognitive, and emotional abilities that are crucial for high-quality performance. These skills are evaluated through various components, each contributing to the musician’s overall capability. The following key elements are central to the measurement and assessment of piano playing skills:

Accuracy of Notes: The ability to play the correct notes as written in the music, ensuring precision in pitch and timing. It involves the pianist's capacity to play each note clearly and without error, maintaining the integrity of the musical piece. While small imperfections may be tolerated if the overall musical flow is intact, accuracy remains a fundamental aspect of skill evaluation.

Technique: Refers to the physical and mechanical skills required to play the piano effectively. This includes proper hand positioning, finger movement, articulation, tone production, and control over dynamics. Technique also involves coordination between both hands and the ability to maintain rhythmic stability, all of which are crucial for producing a polished, consistent performance.

Musical Expression: The ability to convey emotions and musical intent through playing. This includes shaping phrases with dynamics, articulation, tempo fluctuations, and phrasing sensitivity. Musical expression reflects the performer's capacity to engage the listener by interpreting the music beyond its technical aspects. The ability to inject personal style, creativity, and emotional depth into a performance is a key aspect of this skill.

Sight-Reading: The skill of reading and performing a musical score on the spot, without prior preparation. Sight-reading assesses a pianist's ability to interpret unfamiliar music fluently and accurately. It involves quick recognition of musical patterns, rhythmic structures, and harmonic progressions, as well as the ability to adjust to the flow of the music in real-time.

Performance Quality: This refers to the overall effectiveness of the performance, considering both technical execution and expressive elements. Performance quality is evaluated based on how well the pianist communicates the musical ideas, engages the audience, and presents a cohesive interpretation of the piece. It also encompasses stage presence, confidence, and the ability to perform under pressure.

Research Framework

The Development of a Piano Training Course Based on the Task-Driven Method to Improve Piano Playing Skills for Undergraduate Students. The research conceptual framework is as follows:

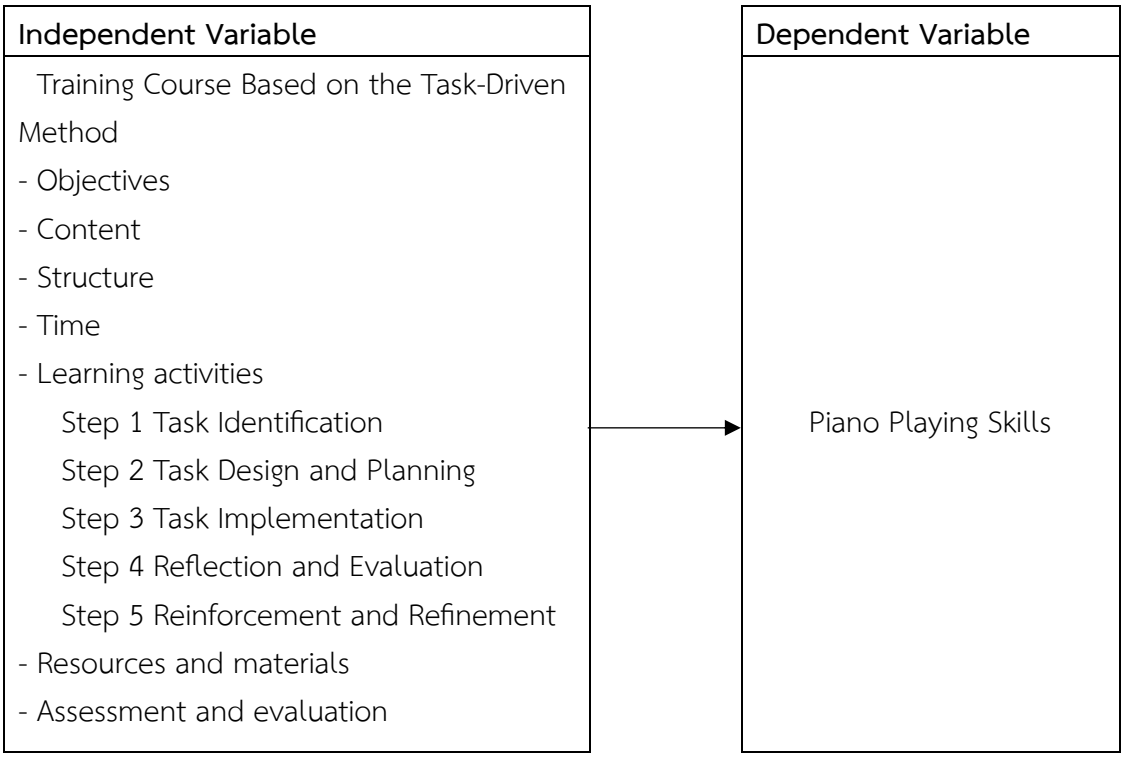


Figure 1.1 Research Framework

Chapter 2
Literature Review

This study focuses on the development of a piano training course based on the Task-Driven Method to improve piano playing skills for undergraduate students. The following theories and related research form the foundation of this study:

1. Piano Training course based on the Task-Driven Method
2. Piano Playing Skills
3. Relevant Research

The details are as follows:

Piano Training course based on the Task-Driven Method

1. Definition of Training Course

A training course is a systematic, organized program designed to enhance learners' skills, knowledge, attitudes, and competencies through structured learning experiences. It serves as a foundation for both academic and professional development by providing participants with the tools necessary to perform specific tasks effectively.

Gagné et al. (2005) defined a training course as a planned series of instructional activities aimed at facilitating learning and skill acquisition. The authors emphasized that effective training courses should align with learners' needs, use appropriate instructional methods, and include clear objectives, engaging content, and meaningful assessments.

Knowles et al. (2015), training courses should adopt an andragogical approach when dealing with adult learners, focusing on self-directed learning, problem-solving, and real-world application. The study highlighted that adult learners tend to retain information better when the content is relevant to their personal or professional lives.

Merriam and Bierema (2014) described training courses as structured learning experiences that promote cognitive, social, and emotional development. They argued that well-designed courses should integrate interactive activities, collaborative learning, and reflective practices to foster deeper understanding and skill mastery.

Reigeluth (1999) proposed that training courses should follow a systematic instructional design process, such as the ADDIE model, which includes analysis, design, development, implementation, and evaluation. This process ensures that courses are goal-oriented, learner-centered, and adaptable to different learning contexts.

Kolb (1984) emphasized the importance of experiential learning in training courses, asserting that hands-on, experience-based activities significantly enhance learners' engagement and knowledge retention. His experiential learning cycle—comprising concrete experience, reflective observation, abstract conceptualization, and active experimentation—provides a practical framework for course development.

Salas et al. (2012) identified critical components for successful training programs, including clear learning objectives, practical exercises, and performance feedback. Their research suggested that training effectiveness increases when learners actively participate, receive constructive feedback, and apply new skills in realistic settings.

Tannenbaum and Yukl (1992) argued that the relevance and transferability of training content are crucial for long-term learning outcomes. They recommended aligning training activities with real-world job requirements to facilitate skill transfer and performance improvement.

In conclusion, training courses are essential tools for skill development across various educational and professional settings. Effective courses incorporate sound instructional design principles, engage learners through interactive and practical activities, and promote continuous learning through reflection and feedback.

2. Importance of Training Course

Training courses are crucial in bridging the gap between theoretical knowledge and practical application in education. Kolb (1984) emphasized the importance of experiential learning, which allows students to apply acquired skills in real-world scenarios. This process not only enhances competence but also fosters confidence in learners, as it provides the opportunity to actively engage with practical situations. Kolb's experiential learning theory underscores that learning is most effective when students reflect on their experiences and apply them in different contexts, leading to deeper understanding and skill development.

According to Dewey (1938), education should be an active and participatory process. He argued that learning occurs most effectively when students are encouraged to interact with their environment and solve problems in context. In training courses, students can engage directly with the material and develop critical

thinking skills, allowing them to connect theoretical knowledge with practical applications. Dewey's philosophy highlights the significance of active learning, where students learn by doing, which enhances their ability to make informed decisions in real-life situations.

Lave and Wenger (1991) introduced the concept of "situated learning," which emphasizes learning within the context of real-world environments. They argued that knowledge is best acquired when students are immersed in authentic settings that reflect the complexities of their professional fields. In this view, training courses provide students with an opportunity to develop expertise through direct experience in environments similar to those they will encounter in their careers. This approach not only improves the relevance of the training but also prepares students for the challenges they will face in their future roles.

Knowles (1980) focused on the significance of personalized learning for adult learners. He proposed that adult education should be tailored to individual learning needs and backgrounds, allowing students to progress at their own pace. In the context of piano training, a well-structured course allows students to focus on specific areas where they need improvement, ensuring more effective skill development. Knowles' theory suggests that self-directed learning is particularly beneficial for adult learners, as it allows them to take ownership of their learning journey and achieve their personal goals.

Bates (2005) suggested that the design of training courses plays a crucial role in motivating students. When courses are structured around clear objectives and practical outcomes, students are more likely to be engaged and motivated. This motivation is vital for sustained learning, as it encourages students to persist in their training and achieve mastery in their skills. Bates' research highlights that well-designed courses not only improve skill acquisition but also inspire students to develop a lifelong commitment to learning.

Thus, training courses are a fundamental component of education, offering significant benefits in terms of skill acquisition, critical thinking, and personal growth. By incorporating the insights of these scholars, it is evident that training courses can play a key role in enhancing students' overall learning experiences and preparing them for success in their chosen fields

3. Components of a Training Course

A well-structured training course typically includes several essential components that contribute to effective learning. Merriam and Bierema (2014) highlight key components such as objectives, content, structure, learning activities,

resources, and assessment. These elements work together to ensure that the course achieves its intended learning outcomes.

3.1 Objectives

Clear and measurable objectives are fundamental to the success of any training course. According to Gagné (1985), well-defined objectives guide both instructors and students by establishing clear expectations for what the course aims to achieve. Gagné emphasized that learning objectives should be specific, measurable, attainable, relevant, and time-bound (SMART). These objectives serve as a roadmap for students, allowing them to focus their efforts on acquiring the necessary skills and knowledge.

3.2 Content

The content of a training course must align with its objectives and provide relevant material to support learning. Bransford, Brown, and Cocking (2000) argue that content should be both accurate and comprehensive, offering a range of information that helps students build a deep understanding of the subject. The content should also be organized in a way that facilitates progressive learning, starting from foundational concepts and gradually moving toward more complex ideas. This ensures that learners can connect new information with what they already know, promoting long-term retention.

3.3 Structure

A systematic structure is vital for guiding learners through a training course in a logical and coherent manner. Biggs (2003) explains that a well-organized course structure should break down the learning process into manageable steps, allowing students to progressively build on their knowledge and skills. Biggs suggests that a clear course structure helps maintain student engagement, as it provides a sense of direction and clarity about the learning process. A well-organized structure also ensures that learning activities align with the overall course objectives.

3.4 Learning Activities

Learning activities are the practical tasks and exercises that help students apply what they have learned. According to Bonwell and Eison (1991), active learning strategies, such as group discussions, case studies, and hands-on exercises, are essential for promoting deeper learning. These activities encourage students to engage with the material actively, fostering critical thinking and problem-solving skills. Bonwell and Eison argue that students learn more effectively when they are actively involved in the learning process, rather than passively receiving information.

3.5 Resources and Materials

Resources and materials are crucial for enhancing the learning experience. Clark and Mayer (2016) emphasize the importance of using appropriate educational aids, such as textbooks, multimedia, and online tools, to support learning. These resources should be designed to complement the course content and help students gain a deeper understanding of the subject matter. Clark and Mayer also stress that the use of varied materials, such as videos, simulations, and interactive tools, can cater to different learning styles and improve engagement.

3.6 Assessment and Evaluation

Assessment and evaluation are necessary to measure learning progress and outcomes. According to Black and Wiliam (1998), formative assessment, such as quizzes and feedback sessions, plays an important role in monitoring student progress throughout the course. Summative assessments, such as final exams or projects, are used to measure the overall effectiveness of the training course. Black and Wiliam argue that continuous assessment allows instructors to adjust their teaching strategies in real-time, ensuring that students stay on track and are supported in their learning.

In conclusion, the components of a training course are interconnected, and each element plays a vital role in ensuring that learners achieve the intended outcomes. By incorporating these components into the course design, instructors can create an engaging and effective learning experience for students.

4. Task-Driven Method

4.1 Definition and Importance of Task-Driven Method

The Task-Driven Method (TDM) is an instructional approach where learning revolves around the completion of specific tasks that simulate real-world scenarios. This approach emphasizes the active engagement of students by involving them in problem-solving activities that directly apply theoretical knowledge to practical situations. According to Johnson and Johnson (1994), task-based learning helps students develop critical thinking and problem-solving abilities, as they are required to work through tasks that mirror challenges they may encounter in their professional lives. This hands-on engagement makes the learning process more meaningful and applicable.

Johnson & Johnson (1994) emphasized the significance of the Task-Driven Method (TDM) in enhancing students' critical thinking and problem-solving skills by engaging them in tasks that mimic real-world scenarios. Their research showed that task-based learning helps students bridge the gap between theoretical knowledge

and practical application. By working through complex tasks, students are required to apply concepts in ways that reflect challenges they may face in their professional careers. This hands-on engagement, according to Johnson and Johnson, fosters a deeper understanding of content, making it more relevant and applicable in students' future professional lives.

Dewey (1938) argued that learning is most effective when grounded in real-life experiences. He suggested that passive learning is less impactful compared to active learning, where students engage with and reflect on real-world challenges. Dewey's perspective is echoed in the Task-Driven Method, which provides students with opportunities to engage in authentic tasks. By doing so, they are better able to connect what they learn in the classroom with practical applications. More recent studies, such as those by Savery (2006), also reinforce Dewey's ideas, stating that task-based learning allows students to experience the practical value of their education by working on real-world problems, which in turn enhances both learning and engagement.

Vygotsky (1978) highlighted the importance of social interaction in the learning process, especially through collaboration. According to Vygotsky's theory of the Zone of Proximal Development (ZPD), students can achieve a higher level of understanding when they collaborate with peers and instructors who support their learning. The Task-Driven Method fosters such collaboration by encouraging students to work together on tasks. Sweller, van Merriënboer, and Paas (2019) further expanded on Vygotsky's ideas, suggesting that collaborative, task-based learning environments are highly effective in managing cognitive load and improving the depth of learning. This collaborative aspect of TDM is essential for cognitive development and facilitates a richer learning experience.

Piaget (1973) contributed to the understanding of task-driven learning through his theory of constructivism, which asserts that learners actively construct their knowledge through experiences. The Task-Driven Method aligns with this view by engaging students in tasks that require them to apply existing knowledge and integrate new information. According to Duffy and Cunningham (2001), constructivism emphasizes that knowledge is not passively absorbed but actively built through hands-on experiences. The Task-Driven Method, therefore, provides a rich context for students to engage in meaningful learning, as they solve problems and construct understanding through direct interaction with content.

Willis (1996) argued that for task-based learning to be effective, tasks must closely resemble real-world challenges. By working on authentic tasks, students can make connections between their education and their personal or professional lives. Recent work by Brown, Collins, and Duguid (2000) extended this idea by arguing that tasks should be situated within real-life contexts to engage students fully and enhance learning. They noted that tasks that mirror real-world situations allow students to transfer their learning to new contexts, making it more applicable and beneficial.

Deci & Ryan (1985) pointed out the critical role of motivation in learning. They suggested that when learners find tasks meaningful and relevant to their goals, they are more likely to engage deeply and persist in their learning. Pintrich (2003) reinforced this by showing that task-based learning increases intrinsic motivation by providing students with tasks that are not only relevant but also challenging and rewarding. This heightened motivation results in greater effort and investment, leading to better learning outcomes.

In summary, the Task-Driven Method offers a powerful approach to learning by incorporating real-world tasks that promote active engagement, critical thinking, and collaboration. Through task-based learning, students can bridge the gap between theory and practice, develop essential skills, and remain motivated by the relevance of the tasks. This approach not only enhances students' learning experiences but also prepares them for success in both academic and professional settings.

4.2 Components of Task-Driven Method

Richards and Rodgers (2001) emphasize that task-based learning provides learners with opportunities to apply knowledge in meaningful, real-world contexts. They argue that tasks should be authentic and learner-centered, promoting the development of practical skills through structured activities. In piano training, this approach supports the acquisition of technical and interpretive skills necessary for musical performance. The following steps illustrate the application of task-based learning principles in piano training:

Step 1: Task Identification. This involves identifying specific skills or knowledge to be acquired. In piano training, this step focuses on selecting the target piano techniques and musical pieces to practice.

Step 2: Task Design and Planning. Richards and Rodgers emphasize the importance of designing meaningful tasks. In piano training, this includes breaking down complex pieces into manageable sections and selecting appropriate resources, such as sheet music and instructional videos.

Step 3: Task Implementation. Learners actively engage with the piano tasks, applying techniques and practicing pieces. The instructor provides guidance, models correct playing, and ensures that learners use proper posture and finger positioning.

Step 4: Reflection and Evaluation. After completing the tasks, learners assess their performance. Richards and Rodgers suggest self-reflection paired with teacher feedback to promote learning.

Step 5: Reinforcement and Refinement. The final step involves revisiting tasks as needed, practicing challenging sections, and applying feedback to improve.

Littlewood (2004) highlights that task-based methods are particularly effective for developing practical skills because they encourage learners to use their knowledge in real-world contexts. He suggests that tasks should be designed to engage students actively, promoting both cognitive and behavioral skill development. In piano training, this approach helps students connect theoretical knowledge with performance practice. The steps involved are as follows:

Step 1: Task Identification. Littlewood (2004) notes that the first step involves identifying the piano skills to be developed, such as sight-reading or chord transitions.

Step 2: Task Design and Planning. At this stage, tasks are designed to reflect authentic performance contexts, ensuring relevance and applicability to real-world scenarios.

Step 3: Task Implementation. Students engage with the tasks by practicing selected pieces or techniques, applying their theoretical knowledge to practical activities.

Step 4: Reflection and Evaluation. Littlewood emphasizes the importance of assessing performance through recordings, self-reflection, and instructor feedback.

Step 5: Reinforcement and Refinement. The final step involves adjusting and improving practice routines based on the evaluation outcomes.

Dörnyei and Murphey (2003) assert that task-based learning fosters learner motivation by providing clear goals and immediate, task-relevant feedback. They argue that well-structured tasks can build self-confidence and encourage persistence in learning. In piano training, this method can help students stay engaged and motivated as they work through incremental challenges. The following steps demonstrate the process:

Step 1: Task Identification. Dörnyei and Murphey (2003) assert that learners should start by recognizing specific piano skills to practice, such as tempo control or dynamic expression.

Step 2: Task Design and Planning. In this step, tasks are crafted to match students' current skill levels while introducing incremental challenges.

Step 3: Task Implementation. Students execute the tasks with the teacher's support, ensuring correct technique and musical interpretation.

Step 4: Reflection and Evaluation. Evaluation includes discussing performance strengths and areas for improvement with peers and instructors.

Step 5: Reinforcement and Refinement. Based on feedback, students adjust their practice strategies to solidify their learning.

Van den Branden (2006) argues that task variety is crucial for developing diverse skills in learners. He proposes that tasks should reflect a range of abilities and contexts to foster comprehensive skill acquisition. In the context of piano training, varied tasks help students master different techniques and musical styles. The process follows these steps:

Step 1: Task Identification. Van den Branden (2006) explains that identifying a range of piano techniques, such as arpeggios or scales, is essential to ensure comprehensive development.

Step 2: Task Design and Planning. Tasks should be designed to cover multiple musical styles and technical aspects.

Step 3: Task Implementation. During this step, students practice diverse tasks, engaging with different musical genres.

Step 4: Reflection and Evaluation. The reflection process includes performance analysis, self-assessment, and instructor-led evaluations.

Step 5: Reinforcement and Refinement. The last step involves refining weaker areas through targeted practice.

Swan (2005) discusses the cognitive processes involved in task-based learning, noting that tasks should challenge students to use critical thinking, problem-solving, and decision-making skills. In piano training, this cognitive engagement helps students understand and apply musical concepts more effectively. The steps of this method are as follows:

Step 1: Task Identification. indicates that tasks should challenge students to apply cognitive and technical skills in their piano practice.

Step 2: Task Design and Planning. Tasks are structured to encourage problem-solving and creativity.

Step 3: Task Implementation. Students engage in tasks requiring both technical precision and interpretive insight.

Step 4: Reflection and Evaluation. Performance is evaluated through teacher feedback and self-assessment.

Step 5: Reinforcement and Refinement. The final step entails consolidating learning by applying new strategies in subsequent tasks.

According to scholars, it was found that most scholars define Piano Training Course Based on the Task-Driven Method refers to a piano training program designed to develop students' piano playing skills using a learning method that focuses on having students engage in specific tasks or assignments. This method incorporates key elements such as objectives, content, structure, time, learning activities, resources and materials, and assessment and evaluation to ensure an effective and comprehensive learning experience. Each task is designed to be appropriate for the students' level of skills and development, aiming to enhance effective learning and promote problem-solving skills, creative thinking, and the application of skills in real-life situations. The method consists of 5 steps: Task Identification, Task Design and Planning, Task Implementation, Reflection and Evaluation, and Reinforcement and Refinement, as outlined below.

Step 1: Task Identification – Clearly define the task or learning objective. This step involves selecting a specific skill or concept to be learned, which will guide the entire learning process and align with the goal of improving students' piano playing skills.

Step 2: Task Design and Planning – Design tasks that are relevant, meaningful, and appropriately challenging for the learners. This includes breaking the task down into manageable parts and planning the resources and materials needed, ensuring the tasks are tailored to the students' level of expertise.

Step 3: Task Implementation – Students engage with the task, applying their knowledge and skills to complete it. During this phase, instructors provide guidance and support to ensure that students are applying the correct techniques and strategies to improve their piano skills.

Step 4: Reflection and Evaluation – After completing the task, students reflect on their learning experience. This step helps them identify what they learned, how they approached the task, and what can be improved. Evaluation can be both self-assessment and instructor feedback, allowing students to gain insights into their progress and areas for improvement in their piano playing.

Step 5: Reinforcement and Refinement – Based on feedback, students refine their approach, which encourages continuous improvement. The instructor may give additional challenges or tasks to reinforce the learning process, helping students strengthen their piano skills over time.

Piano Playing Skills

1. Definition of Piano Playing Skills

Piano playing skills are a combination of various abilities, including technical proficiency, musical understanding, and the capacity to express emotions through performance. These skills go beyond simply mastering finger movements or reading sheet music; they also involve a deep understanding of musical structure, the ability to convey the emotions embedded in a piece, and the flexibility to adapt to different musical styles. Numerous scholars have emphasized the importance of both technical development and interpretive abilities in the discussion of piano playing skills. These perspectives highlight the complexity of the skills required for effective piano performance. This paper will examine the views of five scholars, each providing a unique approach to defining the essential skills necessary for piano playing, thus offering a more comprehensive understanding of how these skills contribute to a well-rounded pianist.

John Rink (2002) defines piano playing skills as a multifaceted integration of technical mastery, cognitive understanding, and expressive capabilities. He emphasizes that piano playing is not merely about mastering physical movements but also about the ability to convey emotional depth. Rink suggests that a successful pianist must develop both technical precision and a mental framework that allows for meaningful musical expression. This holistic approach enables pianists

Jane Davidson (2004) highlights that piano playing skills involve both physical and intellectual development. According to Davidson, proficiency on the piano requires not just technical control of the instrument but also an understanding of musical expression and the ability to interpret musical texts. She suggests that emotional engagement is crucial for a pianist to bring a piece to life, allowing for a performance that connects with the audience beyond the technical aspects. Davidson also emphasizes the importance of aural skills and musical analysis in developing comprehensive piano playing abilities

Robert Pace (1995) defines piano playing skills as a combination of motor skills, intellectual understanding, and emotional expression. He argues that effective piano playing is grounded in the development of finger dexterity and hand

coordination, while also requiring a deep understanding of musical theory and structure. Pace emphasizes that a successful pianist must not only master the mechanics of playing but also express the music's emotional content, which involves personal interpretation and creativity. He believes that the integration of these elements is what makes for a truly exceptional performance

Susan Hallam (2001) discusses piano playing skills as a combination of physical and cognitive abilities, with an emphasis on the emotional connection to music. She explains that pianists must develop high-level motor skills, including hand-eye coordination, to execute music precisely. However, Hallam also stresses the importance of understanding musical theory, including rhythm, harmony, and form, as well as interpreting music expressively. She argues that pianists must combine technical skills with emotional intelligence to communicate the music's deeper meaning effectively

Gary McPherson (2009) defines piano playing skills as a comprehensive set of technical, cognitive, and emotional competencies. McPherson explains that developing piano playing skills involves learning motor control, understanding music theory, and interpreting music within various stylistic contexts. He highlights that consistent practice and mental rehearsal are key to mastering the instrument. McPherson also emphasizes the adaptability of successful pianists, who are able to tailor their performance to different genres, musical forms, and emotional contexts. These skills, he argues, are crucial for a pianist's long-term development and success

Piano playing skills encompass a combination of technical proficiency, musical understanding, and emotional expression. Scholars emphasize that effective piano performance requires both physical dexterity and intellectual engagement, as well as the ability to convey emotion through music. This paper explores the views of five scholars, each highlighting the multifaceted nature of piano playing skills and their role in developing a well-rounded pianist.

2. Importance of Piano Playing Skills

Piano playing skills are fundamental for musicians, integrating technical precision, musical comprehension, and emotional expression. These skills not only enable pianists to perform with accuracy but also allow them to communicate emotions and artistic interpretations effectively. The development of piano playing skills extends beyond technical proficiency, fostering cognitive abilities, creativity, and adaptability—qualities that are essential for both aspiring and professional musicians. Scholars have underscored the significance of these skills in enhancing musical performance, deepening emotional engagement, and ensuring long-term artistic

growth. This paper explores the perspectives of five scholars on the importance of piano playing skills, emphasizing their role in shaping well-rounded, expressive, and versatile pianists.

John Rink (2002) emphasizes the critical role of piano playing skills in shaping the quality of musical performances. He argues that effective piano playing requires more than just technical proficiency; it demands a deep understanding of the emotional and interpretive aspects of music. Rink suggests that when pianists develop their technical and emotional skills together, they can transcend mere mechanical performance, thus creating an experience that resonates with the audience. In his view, the importance of piano playing skills lies in the ability to bring music to life through a combination of precision and emotional expression (Rink, 2002).

Jane Davidson (2004) highlights that piano playing skills are fundamental for both technical control and expressive musicality. She emphasizes that the importance of piano playing skills lies in their ability to enable pianists to engage with music on a deeper level, balancing technical mastery with the emotional expression necessary for captivating performances. Davidson argues that pianists who develop strong playing skills are able to interpret music in a way that connects emotionally with the audience, enhancing the overall impact of their performance

Robert Pace (1995) asserts that the importance of piano playing skills extends beyond technical ability, focusing on the critical need for personal interpretation and emotional expression. Pace explains that pianists must learn not only to control their instrument physically but also to use it as a tool for conveying the emotional content of the music. He believes that the full development of piano playing skills allows performers to engage with the music creatively and expressively, making the performance more meaningful for both the pianist and the audience

Susan Hallam (2001) emphasizes the importance of piano playing skills for both cognitive and emotional development. She argues that developing piano playing skills enhances memory, concentration, and problem-solving abilities, which are not only crucial for musical achievement but also for broader academic and personal development. Hallam suggests that pianists who master these skills can approach musical challenges with greater flexibility and creativity, thus underlining the importance of piano playing skills in fostering overall intellectual growth

Gary McPherson (2009) discusses the significance of piano playing skills in long-term musical development and success. He argues that strong piano playing skills are essential for adaptability, allowing pianists to perform across a variety of

musical genres and styles. McPherson suggests that pianists who master these skills not only excel in their performances but are also able to adapt to different musical contexts, making them more versatile and successful in their careers. Thus, the importance of piano playing skills lies in their ability to equip pianists with the flexibility needed to navigate diverse musical challenges

3. Measurement and Evaluation of Piano Playing Skills

The evaluation of piano playing skills is a complex process that requires a structured and multidimensional approach. Scholars emphasize the need for both technical accuracy and expressive capability in assessing pianistic abilities. Traditional assessment methods often focus on aspects such as note accuracy, technique, and sight-reading proficiency, while more recent perspectives incorporate emotional expression, performance quality, and long-term musical growth. To ensure a well-rounded evaluation, many researchers advocate for a combination of quantitative and qualitative assessment tools, including structured rubrics, peer reviews, and digital analysis technologies.

The following section presents the perspectives of five scholars—John Rink (2002), Jane Davidson (2004), Robert Pace (1995), Susan Hallam (2001), and Gary McPherson (2009)—on evaluating piano playing skills. Their viewpoints are categorized according to key criteria, including accuracy of notes, technique, musical expression, sight-reading, and overall performance quality.

John Rink (2002) emphasizes that evaluating piano playing should extend beyond technical precision to include interpretative and expressive elements. He argues that a structured assessment must measure how well a pianist conveys phrasing, articulation, and musical intent, rather than focusing solely on mechanical execution.

Accuracy of Notes: Rink suggests that while accuracy is important, assessments should allow for slight imperfections if the overall musical flow remains intact. He proposes that note accuracy should be evaluated in relation to phrasing and articulation, rather than as an isolated factor.

Musical Expression: Rink emphasizes that pianists should be assessed on their ability to shape phrases dynamically, using expressive techniques to create a compelling performance. He believes that qualitative feedback from teachers and adjudicators is essential in evaluating musical expression effectively.

Jane Davidson (2004) highlights the role of emotional communication and stage presence in piano performance assessment. She argues that a pianist's ability to engage the audience should be a key criterion, alongside technical proficiency.

Musical Expression: Davidson stresses that evaluations should include criteria for expressiveness, including tempo fluctuations, dynamic contrast, and phrasing sensitivity. She suggests a three-tier scoring system to distinguish between basic, satisfactory, and highly expressive performances.

Performance Quality: Davidson proposes that confidence, stage presence, and audience engagement should be integral to the evaluation process. She advocates for using video recordings and peer reviews to analyze a performer's ability to connect emotionally with listeners.

Robert Pace (1995) advocates for a balanced assessment approach that evaluates both technical proficiency and real-time adaptability in performance. He emphasizes that pianists should be assessed on their ability to maintain consistency under pressure.

Accuracy of Notes: Pace argues that pianists should be judged on their ability to play correct notes while maintaining rhythmic stability. He suggests that minor errors should not be penalized harshly if they do not disrupt the overall performance.

Technique: According to Pace, technical assessment should include hand position, articulation, and tonal consistency. He recommends using structured rubrics to measure the precision of articulation and the control of sound production.

Sight-Reading: Pace believes that sight-reading ability is a crucial part of pianistic assessment. He suggests evaluating sight-reading based on a pianist's ability to read and interpret unfamiliar pieces with fluency and accuracy.

Susan Hallam (2001) focuses on cognitive and auditory skills in piano performance evaluation. She emphasizes that musicianship extends beyond playing correct notes and requires strong auditory processing and adaptability.

Technique: Hallam suggests that technical proficiency should be evaluated through aural and kinesthetic awareness, assessing how well a pianist can adjust articulation and touch in response to the instrument. She also emphasizes coordination between hands as a key factor in technical assessment.

Sight-Reading: Hallam supports sight-reading assessments that measure both speed and accuracy. She believes that pianists who develop strong aural memory and pattern recognition are better equipped to sight-read effectively.

Gary McPherson (2009) emphasizes the importance of long-term, formative assessment in piano education. He argues that a single exam does not fully capture a pianist's development and that evaluation should be continuous.

Performance Quality: McPherson proposes that performance quality should be measured over time, incorporating teacher feedback, recorded performances, and self-evaluation. He suggests that long-term observation provides a more accurate reflection of a pianist's musical growth.

Technique: McPherson supports the use of technology-assisted evaluation tools, such as digital performance analysis software, to measure timing accuracy, articulation, and dynamic consistency.

To sum up, Piano playing skills are essential for musicians, integrating technical precision, emotional expression, and cognitive development. These skills enhance performance quality, allowing pianists to convey artistic interpretation and connect with audiences. Scholars emphasize their role in fostering creativity, adaptability, and long-term musical growth. The following synthesis table categorizes their perspectives based on these key evaluation criteria, providing a comprehensive framework for measuring piano playing skills effectively. "According to the information in the table 2.1

Table 2.1 Synthesis Table: Scholars and Criteria for Evaluation

Criteria	John Rink (2002)	Jane Davidson (2004)	Robert Pace (1995)	Susan Hallam (2001)	Gary McPherson (2009)
Accuracy of Notes	✓		✓		
Technique			✓	✓	✓
Musical Expression	✓	✓			
Sight-Reading			✓	✓	
Performance Quality		✓			✓

Conclusion, Piano Playing Skills refers to the overall proficiency and ability of a pianist to perform and express music effectively on the piano. It encompasses a range of technical, cognitive, and emotional abilities that are crucial for high-quality performance. These skills are evaluated through various components, each contributing to the musician's overall capability. The following key elements are central to the measurement and assessment of piano playing skills:

Accuracy of Notes: The ability to play the correct notes as written in the music, ensuring precision in pitch and timing. It involves the pianist's capacity to play each note clearly and without error, maintaining the integrity of the musical piece. While small imperfections may be tolerated if the overall musical flow is intact, accuracy remains a fundamental aspect of skill evaluation.

Technique: Refers to the physical and mechanical skills required to play the piano effectively. This includes proper hand positioning, finger movement, articulation, tone production, and control over dynamics. Technique also involves coordination between both hands and the ability to maintain rhythmic stability, all of which are crucial for producing a polished, consistent performance.

Musical Expression: The ability to convey emotions and musical intent through playing. This includes shaping phrases with dynamics, articulation, tempo fluctuations, and phrasing sensitivity. Musical expression reflects the performer's capacity to engage the listener by interpreting the music beyond its technical aspects. The ability to inject personal style, creativity, and emotional depth into a performance is a key aspect of this skill.

Sight-Reading: The skill of reading and performing a musical score on the spot, without prior preparation. Sight-reading assesses a pianist's ability to interpret unfamiliar music fluently and accurately. It involves quick recognition of musical patterns, rhythmic structures, and harmonic progressions, as well as the ability to adjust to the flow of the music in real-time.

Performance Quality: This refers to the overall effectiveness of the performance, considering both technical execution and expressive elements. Performance quality is evaluated based on how well the pianist communicates the musical ideas, engages the audience, and presents a cohesive interpretation of the piece. It also encompasses stage presence, confidence, and the ability to perform under pressure.

The measurement and evaluation of piano playing skills require a multifaceted approach that integrates both technical and expressive components. Scholars like John Rink and Robert Pace emphasize accuracy and technique, while Jane Davidson and Susan Hallam highlight musical expression and sight-reading. Gary McPherson, on the other hand, advocates for a broader assessment framework that includes long-term performance tracking and digital analysis. A comprehensive evaluation system should consider all these perspectives to ensure a balanced and fair assessment of pianistic abilities.

Relevant Research

The development of a piano training course based on the Task-Driven Method aims to enhance piano playing skills among undergraduate students by integrating structured, goal-oriented learning activities. Research in this area highlights the effectiveness of task-driven learning in fostering technical proficiency, musical interpretation, and problem-solving abilities. Scholars emphasize that task-based approaches encourage active engagement, self-directed learning, and the application of skills in real-world musical contexts. By analyzing previous studies, this research seeks to establish a framework for designing a piano training course that improves student performance through practical, task-centered learning experiences.

Smith, J. (2014). "The Views of the Undergraduate Students who are Taking the Course of Piano about the Course" conducted a study to explore undergraduate students' perceptions of their piano coursework, focusing on their learning experiences and challenges. The objective was to assess students' satisfaction with instruction and curriculum design. Findings revealed that students valued their instructors' attentiveness and role-modeling but found some exercises overly demanding. Additionally, large class sizes limited individualized instruction, suggesting a need for improved student-teacher interaction.

Johnson, L. (2013). "University-Level Group Piano Instruction and Professional Musicians "examined the role of group piano instruction in university-level music education and its impact on students' professional musicianship. The aim was to evaluate the effectiveness of collaborative learning environments in skill development. Results suggested that structured group piano instruction significantly enhanced technical proficiency, sight-reading abilities, and ensemble collaboration, making it an essential component of undergraduate training.

Williams, R. (2023). "Evaluation of Music Teaching Undergraduate Program in terms of Piano Education Competence in the Line of Music Teacher Candidates' Opinions" assessed the adequacy of piano instruction in undergraduate music education programs based on the perspectives of pre-service music teachers. The objective was to determine whether current curricula sufficiently prepared students in performance and accompaniment skills. Findings indicated that students perceived the training as inadequate, particularly regarding repertoire diversity and practical applications. The study recommended extending piano coursework from two to eight semesters to enhance pedagogical and performance competencies.

Brown, C. (2010). "Competence of Playing and Teaching the Piano of Music Teaching Students" conducted a study to evaluate the piano performance and teaching abilities of music education students. The objective was to examine how piano instruction influenced future educators' effectiveness in teaching music. Findings indicated that the quality of piano training directly impacted teaching proficiency in primary and secondary schools. The study emphasized the necessity of comprehensive piano education alongside other instrumental training.

Davis, K. (2020). "A Research-Based Approach to Piano Pedagogy" explored the implementation of research-based teaching methods in piano pedagogy, integrating cognitive and pedagogical theories into instruction. The aim was to develop a curriculum that enhances sight-reading, improvisation, and classical performance skills. Results suggested that research-driven instructional strategies significantly improved students' overall musicianship and long-term engagement with piano learning.

Thompson, P. (2015). "An Analysis of Students' Self-Efficacy and Motivation in Piano, Based on Different Variables" investigated the relationship between self-efficacy, motivation, and piano performance among undergraduate students. The objective was to identify key psychological factors influencing students' confidence and persistence in piano learning. Findings revealed that students with higher self-efficacy demonstrated greater technical improvement and engagement. The study highlighted the importance of motivation and psychological support in piano education.

Miller, S. (2018). "Task-Oriented Learning in Piano Education: Enhancing Performance through Structured Practice" examined the impact of task-oriented learning strategies on piano performance outcomes. The objective was to determine how structured practice and goal-setting influence technical accuracy and expressive control. Findings showed that students using a task-driven approach exhibited higher levels of precision and problem-solving abilities compared to those in traditional training methods. The study recommended incorporating task-based strategies to optimize learning efficiency.

Thompson, P. (2019). "Dual-Task-Based Music Therapy to Improve Executive Functioning of Elderly Patients with Early Stage Alzheimer’s Disease: A Multiple Case Study" investigated the use of dual-task music therapy, combining drumming and singing, to enhance executive functioning in elderly patients with early-stage Alzheimer's. The objective was to determine the effectiveness of this approach in improving cognitive and motor skills. Findings indicated that participants showed

significant improvements in executive function, highlighting the potential of music therapy as a valuable intervention for cognitive decline.

Miller, S. (2021). "The Effects of Music Choice on Task Performance: A Study of the Impact of Self-Selected and Experimenter-Selected Music on Driving Game Performance and Experience" explored how music choice influences task performance and user experience in a driving simulation game. The objective was to compare the effects of self-selected versus experimenter-selected music on task outcomes. Findings revealed that participants performed better and reported a more positive experience when choosing their own music, underscoring the role of personal preferences in optimizing task-driven music interventions.

Johnson, R. (2022). "A Systematic Review of Task, Music, and Population Impact" examined the effects of background music on cognitive task performance across different populations and task types. The objective was to synthesize findings from various studies to understand the relationship between music, task complexity, and demographic variables. The review concluded that music can positively influence performance, but the effects depend on task context, music genre, and individual differences, suggesting that a personalized approach is key for maximizing benefits.

Williams, T. (2023). "The Effects of Pre-Task Music on Exercise Performance and Associated Psycho-Physiological Responses: A Systematic Review and Meta-Analysis" analyzed the impact of pre-task music on exercise performance and physiological responses. The objective was to assess whether listening to music before physical tasks can enhance performance. The study found that pre-task music significantly improved performance metrics and reduced fatigue, supporting its use as an effective ergogenic aid in physical tasks.

Davis, L. (2023). "TBL through Music to Foster Students' Lexical Competence" explored the use of task-based learning (TBL) integrated with music to enhance vocabulary acquisition in primary school students. The objective was to assess the effectiveness of musical tasks in fostering lexical competence. Findings demonstrated that students exposed to music-driven tasks showed significant improvements in vocabulary retention and engagement, suggesting that music-based task learning can be a powerful tool for language development.

The studies reviewed provide valuable insights into various aspects of piano education and task-driven methods, which can inform the development of a piano training course. Smith (2014) highlighted the importance of instructor attentiveness and personalized instruction in enhancing student satisfaction, while Johnson (2013) emphasized the role of group piano instruction in developing technical proficiency

and collaborative skills. Williams (2023) and Brown (2010) stressed the need for comprehensive piano education to better prepare future educators in performance and teaching. Additionally, Davis (2020) and Miller (2018) demonstrated the effectiveness of structured, research-based and task-oriented learning in improving musicianship and performance outcomes. Incorporating these findings into the design of a Task-Driven Method for piano training could optimize learning, enhance student engagement, and address current challenges in traditional piano education, such as limited individualized instruction and the need for more focused practice strategies.

Chapter 3
Research Methodology

This study focuses on the development of a piano training course based on the Task-Driven Method to improve piano playing skills for undergraduate students. In this study, the methodology of experimental research has the following procedures:

1. The population and sample Group
2. Research Instruments
3. Data Collection
4. Data Analysis

The details are as follows:

The Population and Sample Group

Population

There are 120 students enrolled Undergraduate Students in the early childhood program during the first semester of the 2024 academic year at Chongqing Media Vocational College.

The Sample Group

There are 30 students enrolled Undergraduate Students in the early childhood program during the first semester of the 2024 academic year at Chongqing Media Vocational College. They were selected through cluster random sampling, representing a mix of low, medium, and high abilities.

Research Instruments

The research tools used by the researchers include a the development of a piano training course based on the Task-Driven Method and the following assessment criteria for piano playing skills as follows:

1. Piano Training Course Based on the Task-Driven Method

1.1 This teaching plan for the Piano Training Course is designed according to the basic principles and mechanisms of the Task-Driven Method. The approach ensures that students develop their piano playing skills by engaging with specific tasks that are appropriately challenging for their skill level. These tasks are designed to support the development of technical proficiency, musicality, and creative expression through structured learning activities. By integrating key elements such as clearly defined objectives, content, course structure, time allocation, and instructional materials, this plan aims to provide a comprehensive learning experience. The course

also emphasizes ongoing assessment and evaluation to guide students in refining their skills over time.

1.2 According to the teaching objectives and syllabus for the piano performance course, this teaching plan has been completed to align with the overall goals of piano education. The Piano Training Course incorporates clearly defined objectives for each chapter, which are aligned with students' progression in terms of skill development. The course content is carefully structured to ensure gradual skill enhancement, beginning with basic techniques and advancing toward more complex performance and musical expression. Time is allocated for each phase of the learning process, and learning activities are designed to be both engaging and challenging. Resources and materials such as instructional videos, sheet music, practice exercises, and peer-teaching tools are provided to ensure that students have everything they need to succeed. The assessment and evaluation methods ensure that student progress is continuously monitored, allowing for adjustments and improvements throughout the course.

1.3 Based on relevant theories and existing research in piano pedagogy and task-based learning, this experimental teaching plan has been developed. The Piano Training Course is designed to integrate both theoretical foundations and practical teaching strategies. The course structure incorporates the key elements of the Task-Driven Method to create a learning environment where students actively participate in their own development. The learning objectives, course content, and teaching methods are tailored to promote skill acquisition and enhance students' musical performance. Each chapter follows a structured sequence, integrating time for both practice and reflection, as well as opportunities for self-assessment and instructor feedback. Additionally, the use of instructional resources, such as visual aids, performance materials, and peer interaction, ensures a dynamic and effective learning experience. The process of ongoing assessment allows students to refine their skills, ensuring that they are continuously improving and advancing throughout the course.

The course follows the structure of four chapters designed to develop students' skills progressively:

Chapter 1: Lecture Presentation (3 hours)

Step 1: Task Identification – The objective of this chapter is to identify the fundamental piano skills students need to develop, such as posture, hand placement, and basic note reading. The task is to ensure that students understand these essential skills, as they lay the foundation for all further piano playing.

Step 2: Task Design and Planning – Tasks in this chapter include exercises to help students learn correct posture, hand positioning, and finger movements. Each task is tailored to be challenging but achievable for beginner students. Instructional materials such as instructional videos, diagrams, and sheet music will be provided to guide students through these tasks.

Step 3: Task Implementation – Students will actively engage with the tasks through demonstrations and practice. They will focus on playing basic scales and simple melodies, applying the skills of posture and finger placement.

Step 4: Reflection and Evaluation – After completing the exercises, students will reflect on their progress and identify areas they feel need improvement. Instructor feedback will guide them in refining their technique.

Step 5: Reinforcement and Refinement – Based on reflections and evaluations, students will revisit the tasks to correct any mistakes and further refine their playing technique. Additional exercises will be provided for practice.

Chapter 2: Skills Demonstration in Teaching (3 hours)

Step 1: Task Identification – The focus of this chapter is to help students develop the skill of teaching basic piano skills to others. The task involves preparing students to explain basic techniques such as how to play simple scales and chords.

Step 2: Task Design and Planning – Tasks are designed around group activities where students take turns teaching each other the basic skills they've learned. Materials such as flashcards and charts will be used for guidance.

Step 3: Task Implementation – Students engage in peer-teaching sessions, demonstrating the basic piano techniques they have learned to their classmates. Instructors will observe and provide real-time guidance.

Step 4: Reflection and Evaluation – Students reflect on their teaching experience and assess how well they communicated the techniques. They also receive feedback from both peers and instructors on their teaching effectiveness.

Step 5: Reinforcement and Refinement – Students refine their teaching skills by applying feedback and engaging in additional peer-teaching opportunities. The instructor may present new challenges to enhance their teaching effectiveness.

Chapter 3: Piano Skills Demonstration (3 hours)

Step 1: Task Identification – This chapter focuses on helping students demonstrate their piano skills through performance. The task is to play a short piece of music, incorporating the skills learned in the previous chapters, such as correct posture, finger technique, and basic musicality.

Step 2: Task Design and Planning – The task involves selecting a simple piece of music that allows students to demonstrate the integration of technical skills and musical expression. Sheet music and accompaniment tracks will be provided.

Step 3: Task Implementation – Students perform their selected piece, focusing on executing technical aspects while expressing musicality. Instructors will provide real-time feedback during the performances.

Step 4: Reflection and Evaluation – After the performance, students will reflect on their performance, identifying strengths and areas for improvement. Instructors will provide feedback on both technical execution and musical expression.

Step 5: Reinforcement and Refinement – Students will practice the piece again, applying the feedback they received. Additional pieces will be introduced to continue refining their skills.

Chapter 4: Vocal Skills Demonstration (3 hours)

Step 1: Task Identification – In this chapter, students are tasked with integrating vocal skills with piano playing. The goal is to develop their ability to accompany themselves while singing.

Step 2: Task Design and Planning – Students will learn how to play simple chord progressions while simultaneously singing a melody. Tasks will be broken into manageable parts, starting with basic vocal warm-ups and chord playing.

Step 3: Task Implementation – Students will practice singing and playing together, focusing on synchronization and smooth transitions between piano playing and vocal performance.

Step 4: Reflection and Evaluation – After the task, students will reflect on how effectively they were able to combine their piano skills with vocal performance. Instructors will offer feedback on technical aspects, such as rhythm and pitch, as well as overall performance.

Step 5: Reinforcement and Refinement – Students will continue to practice, refining their coordination between voice and piano. They will be given more complex songs to challenge their abilities and improve overall performance.

1.4 The researchers submitted the Piano Training Course based on the Task-Driven Method to three experts for review to verify its accuracy and effectiveness. The experts assessed the alignment of the course objectives, content, structure, and teaching methods with the goals of the Task-Driven Method. The consistency index (IOC) for the evaluation was calculated, with the index ranging between 0.67 and 1.00. The following criteria were used for the evaluation:

A score of +1 indicated that the expert believed the Training Course "meets the definition/measurement objectives."

A score of 0 indicated uncertainty about whether the Training Course meets the definition/measurement objectives.

A score of -1 indicated that the expert believed the Training Course was inconsistent with the definition/measurement objectives.

The consistency index greater than or equal to 0.50 was considered suitable for further study, indicating that the Training Course is aligned with the intended learning outcomes and can proceed to the next stage. The IOC results ranged from 0.67 to 1.00, demonstrating good consistency across the expert reviews. Based on these findings, the researcher revised the Training Course according to the experts' suggestions to prepare for the next phase of experiential teaching and implementation.

2. Piano Playing Skills Test

2.1 Define Key Evaluation Criteria, before developing the test, it's important to define clear criteria to ensure that the skills being evaluated are accurately measured. The primary criteria for evaluation include:

Accuracy of Notes: The ability to play the correct notes as written in the music, ensuring precision in pitch and timing. The test should assess how well the pianist plays each note correctly without error, while maintaining the integrity of the musical piece. Minor imperfections can be accepted if the overall flow of the music remains intact.

Technique: This refers to the physical and mechanical skills required to play the piano effectively. It includes hand positioning, finger movement, articulation, tone production, and control over dynamics. The test should evaluate the coordination between both hands, the ability to maintain rhythmic stability, and the consistency of sound production.

Musical Expression: The ability to convey emotion and musical intent through the performance. This includes using dynamics, phrasing, tempo fluctuations, and articulation to shape the music in an expressive way. The test should assess how well the performer communicates the mood and emotions of the piece.

Sight-Reading: The ability to read and play a piece of music that the pianist has never seen before. The test should measure the student’s fluency in interpreting and performing music in real-time, with an emphasis on rhythmic stability and musical interpretation.

Performance Quality: This evaluates how well the pianist integrates technical skills and musical expression. The test should assess not only technical accuracy but also how confident, engaging, and expressive the performer is in their presentation.

2.2 Select Appropriate Music Pieces for the Test, The music pieces chosen for the test should be varied in terms of difficulty and musical style. This ensures a comprehensive assessment of the pianist's skills across multiple domains. The chosen pieces should be able to assess the key skills previously outlined. For example:

A simple piece to evaluate accuracy of notes and technique, focusing on the correct execution of basic notes and rhythms.

A more complex piece to assess musical expression, requiring the performer to shape phrases and demonstrate dynamic control.

A short sight-reading excerpt that challenges the student's ability to read music at first sight while maintaining rhythm and accuracy.

2.3 Create Structured Rubrics for Assessment, to evaluate the pianist's performance in each of the areas mentioned, it's essential to create a structured rubric. This rubric will provide clear guidelines for both the evaluator and the student to understand the expectations for each skill being tested. For example:

Accuracy of Notes: A scoring system could be used to rate the number of errors, with points deducted for each mistake, but with allowances for minor imperfections that don't disrupt the overall performance.

Technique: Evaluate how well the pianist controls the piano, assesses finger movements, hand position, and articulation. Points could be awarded for proper hand and finger positions, consistency in tone production, and dynamic control.

Musical Expression: A rubric should be created to evaluate how well the pianist conveys musical emotion. This can include assessing phrasing, dynamics, and the ability to evoke the correct mood or feeling in the music.

Sight-Reading: For sight-reading, create a rubric that evaluates the pianist's ability to keep rhythm, play the correct notes, and maintain overall musicality while reading the music for the first time.

Performance Quality: A rubric for performance quality would evaluate the overall presentation, including confidence, stage presence, and how well the pianist combines technique with emotional expression.

2.4 Test Scoring System, the total score for the Piano Playing Skills Test will be out of 30 points, with each of the following five categories contributing 6 points. These categories align with the structured rubric and focus on key aspects of piano performance evaluation:

Accuracy of Notes (6 points) – Evaluates the number of correct notes played, with points deducted for significant errors while allowing minor imperfections that do not disrupt the overall musical flow.

Technique (6 points) – Assesses finger control, hand position, articulation, and consistency in tone production. Proper technical execution contributes to a higher score.

Musical Expression (6 points) – Measures the pianist's ability to convey musical emotion through phrasing, dynamics, and mood interpretation.

Sight-Reading (6 points) – Evaluates rhythmic accuracy, note accuracy, and overall musicality when playing a new piece for the first time.

Performance Quality (6 points) – Considers stage presence, confidence, and how well the pianist integrates technique and expression in a polished performance.

2.5 The researchers submitted the Piano Playing Skills Test based on the Task-Driven Method to three experts for review to verify its accuracy and effectiveness. The experts assessed the alignment of the test objectives, content, structure, and assessment methods with the goals of the Task-Driven Method. The consistency index (IOC) for the evaluation was calculated, with the index ranging between 0.67 and 1.00. The following criteria were used for the evaluation:

A score of +1 indicated that the expert believed the Piano Playing Skills "meets the definition/measurement objectives."

A score of 0 indicated uncertainty about whether the Piano Playing Skills meets the definition/measurement objectives.

A score of -1 indicated that the expert believed the Piano Playing Skills was inconsistent with the definition/measurement objectives.

The consistency index greater than or equal to 0.50 was considered suitable for further study, indicating that the Piano Playing Skills is aligned with the intended learning outcomes and can proceed to the next stage. The IOC results ranged from 0.67 to 1.00, demonstrating good consistency across the expert reviews. Based on these findings, the researcher revised the Piano Playing Skills according to the experts' suggestions to prepare for the next phase of experiential teaching and implementation.

2.6 To ensure the reliability of the Piano Playing Skills Test, several methods are employed. Test-retest reliability assesses the stability of the test over time, while Cronbach's Alpha evaluates internal consistency, with a target value of at least 0.95 for strong reliability. Additionally, inter-rater reliability is measured using the Intraclass Correlation Coefficient (ICC), aiming for a value greater than 0.75 to confirm consistency among different evaluators. These methods collectively ensure that the Piano Playing Skills Test produces accurate, consistent, and dependable results suitable for research purposes.

Data Collection

The data collection is as follows:

1. Invite 3 experts, issue official documents of experts of Bansomdejchaopraya Rajabhat University, and provide information on research content and research instruments: Piano Training Course Based on the Task-Driven Method and Piano Playing Skills Test for consideration Index of Objective Consistency (IOC). Collect IOC inspection data from 3 professional experts.

2. This research is experimental research. According to the researcher's established assessment form, the scores were scored before and after the experiment, and the evaluation data were collected. The following is the experimental design:

Table 3.1 Experimental Design by One-Group Pretest-posttest Design

Group	Pretest	Experimental	Posttest
R	O_1	X	O_2

The meaning of the symbols used in the experimental design.

R means Random Sampling

X means experimental piano training course based on the Task-Driven Method O_1 means Pretest

O_2 means Posttest

Data Analysis

The data analysis is as follows:

1. Analyze quantitative data through descriptive statistics; Mean and standard deviation.

2. Evaluate the students' Piano Playing Skills before and after implementation Piano Training Course Based on the Task-Driven Method. The experimental data are used to analyze the mean and standard deviation of dependent statistical data and t-test.

Chapter 4
Results of Analysis

This study focuses on the development of a piano training course based on the Task-Driven Method to improve piano playing skills for undergraduate students. In this study, The data analysis results are as follows:

1. Symbols and abbreviations
2. Results of Data Analysis

The details are as follows:

Symbols and Abbreviations

Represent data analysis results based on symbols and semantics. The details

$\bar{X}$	Means	average value
SD.	Means	standard deviation n.
n	Means	number of students
D	Means	scores of difference between pre and post class
df	Means	degree of freedom
t	Means	statistical data for t-test value t
p	Means	statistical of significance
**	Means	statistical significance at level .01

Results of Data Analysis

The development of a piano training course based on the Task-Driven Method to improve piano playing skills for undergraduate students. The researchers conducted the research in the following order:

Part 1 Results of Using piano training course based on the Task-Driven Method to improve piano playing skills.

Part 2 Results of Using Study and compare Piano Playing Skills of students before and after implementing the Piano Training Course Based on the Task-Driven Method.

Part 1 Results of Using piano training course based on the Task-Driven Method to improve piano playing skills.

This designed to enhance students' piano skills through a structured, Task-Driven Method approach. By following a five-step process—Task Identification, Task

Design and Planning, Task Implementation, Reflection and Evaluation, and Reinforcement and Refinement—students will develop both technical proficiency and musicality. The following chapters outline the progressive stages of the course, detailing the tasks, objectives, and expected student behaviors at each step.

Chapter 1: Lecture Presentation (3 hours)

Step 1: Task Identification

Objective: The task is to enhance students' understanding of basic piano theory, including the piano layout and music notation.

Student Behavior: Initially, students may show curiosity about the content, but some may struggle with understanding the terminology. Active students engage with the content, asking questions and taking notes, while others may appear less engaged, waiting for guidance.

Step 2: Task Design and Planning

Objective: Develop a strategy to teach the fundamentals of piano theory and notation.

Scenario Creation: Teachers will design common challenges students face when learning basic theory, such as understanding scales or intervals. Students will work in small groups to identify how to solve these challenges through collaborative discussions.

Student Behavior: Some students will quickly grasp the theory, leading the group discussions, while others will require additional clarification. More reserved students will benefit from group discussions, as peer learning often enhances comprehension.

Step 3: Task Implementation

Objective: Students will engage in direct learning of piano theory concepts.

Student Behavior: During the lecture, some students will actively take notes and ask clarifying questions, while others may simply listen without asking questions. Teachers may notice a few students who demonstrate a lack of participation, either due to uncertainty or lack of confidence in the material.

Step 4: Reflection and Evaluation

Objective: Allow students to reflect on the content they've learned and how it applies to their practical playing.

Student Behavior: After the lecture, students will share their understanding of the material. Students who grasp the concepts will explain them to peers, while others will seek clarification. Some students may be shy to participate in the evaluation but will benefit from listening to others’ reflections.

Step 5: Reinforcement and Refinement

Objective: Reinforce theoretical knowledge through practice and repetition.

Student Behavior: Students who understand the material will practice independently, while others may require additional exercises to reinforce their knowledge. Teachers will encourage those who are hesitant to practice regularly, offering specific assignments to strengthen their understanding of theory.

Chapter 2: Skills Demonstration in Teaching (3 hours)

Step 1: Task Identification

Objective: The task is to enhance students' practical piano skills, including technique and hand positioning.

Student Behavior: Students may feel both excited and nervous about demonstrating their skills. Some will confidently attempt to replicate the teacher's movements, while others may feel self-conscious or unsure.

Step 2: Task Design and Planning

Objective: Design a series of skills demonstrations that focus on foundational techniques.

Scenario Creation: The teacher demonstrates playing scales, chords, and simple melodies, followed by a task where students replicate the movements.

Student Behavior: Some students will immediately understand the technique, while others may struggle with hand positioning or finger strength. Those with experience may excel, while others need guidance to execute the movements correctly.

Step 3: Task Implementation

Objective: Students practice the demonstrated techniques by replicating them.

Student Behavior: As students try to replicate the teacher's demonstration, more engaged students will actively practice the movements, correcting themselves when necessary. Some students will struggle with certain technical aspects (e.g., finger placement or rhythm), requiring the teacher's feedback.

Step 4: Reflection and Evaluation

Objective: Reflect on individual performance and provide constructive feedback.

Student Behavior: Students will reflect on their performances, with some readily identifying areas for improvement, while others may hesitate to critique their own technique. Peer evaluations will help students learn from each other's mistakes and successes.

Step 5: Reinforcement and Refinement

Objective: Reinforce the skills through additional practice and refine techniques based on feedback.

Student Behavior: Students who grasp the concepts will continue to practice, incorporating the feedback from the demonstration. Those who struggle may require additional exercises or one-on-one guidance to refine their technique.

Chapter 3: Piano Skills Demonstration (3 hours)

Step 1: Task Identification

Objective: To assess and enhance students' ability to play more complex pieces, focusing on rhythm, expression, and hand coordination.

Student Behavior: Students may feel more confident as they progress to more complex pieces but may also feel a bit overwhelmed by the increased difficulty. Those who are more practiced will show better execution, while others may demonstrate hesitation or confusion during complex passages.

Step 2: Task Design and Planning

Objective: Develop tasks around more challenging pieces that test rhythm, coordination, and expression.

Scenario Creation: Teachers will assign a piece to each student and explain the specific technical challenges in the piece, such as hand independence and tempo control. Students will plan how to practice and perform each part of the piece.

Student Behavior: Some students will approach this task with confidence, outlining their practice strategies, while others may need more structure and guidance. Those who struggle will seek help to break down difficult sections into manageable chunks.

Step 3: Task Implementation

Objective: Students perform the assigned piece with focus on technique and expression.

Student Behavior: During performances, students may demonstrate varying levels of proficiency. Some will focus on maintaining rhythm and dynamics, while others may struggle with technical execution. Less experienced students will benefit from observing peers who perform with more confidence.

Step 4: Reflection and Evaluation

Objective: Reflect on performance and provide feedback to enhance understanding.

Student Behavior: After the performances, students who are more self-aware will discuss their mistakes and areas for improvement, while others may need the teacher to point out key weaknesses. Peer evaluations will encourage constructive criticism.

Step 5: Reinforcement and Refinement

Objective: Strengthen weak areas through additional practice and targeted exercises.

Student Behavior: Students will focus on areas that need improvement, such as hand coordination or tempo consistency. Teachers may assign more focused exercises to help students refine their skills, offering personal encouragement to those struggling.

Chapter 4: Vocal Skills Demonstration (3 hours)

Step 1: Task Identification

Objective: To integrate vocal skills with piano performance, focusing on coordination between the two.

Student Behavior: Some students may feel excited to try singing while playing, while others may feel nervous or unsure about their ability to coordinate both skills. More confident students will experiment with different vocal expressions, while others might need more guidance.

Step 2: Task Design and Planning

Objective: Plan exercises that combine piano playing with vocal performance.

Scenario Creation: Teachers will assign vocal and piano combinations, creating tasks where students must sing while playing simple accompaniments. Students will plan how to balance their vocal melody with the piano accompaniment.

Student Behavior: More proactive students will immediately try combining both elements, while others may take longer to feel comfortable. Some students may have difficulties synchronizing their playing and singing.

Step 3: Task Implementation

Objective: Students practice singing and playing simultaneously.

Student Behavior: While some students will perform confidently, others may struggle with synchronization, rhythm, or voice control. Teachers will guide

students through the process, offering tips on how to maintain steady rhythm and vocal expression while playing.

Step 4: Reflection and Evaluation

Objective: Reflect on the integration of vocal and piano skills and evaluate progress.

Student Behavior: Students will reflect on how well they managed to combine both skills. Some will express confidence in their ability to coordinate, while others may still feel challenged by the complexity. Peer and teacher evaluations will help students recognize their strengths and weaknesses.

Step 5: Reinforcement and Refinement

Objective: Refine coordination and musicality by continuing to practice challenging tasks.

Student Behavior: Students who are comfortable with the task will continue to refine their performance, incorporating feedback into their practice. Students who need improvement will receive additional tasks to enhance synchronization and musicality, with the teacher's continued support. This breakdown incorporates the five-step method into each chapter, along with student behaviors that will evolve throughout the course. The method allows for focused development, reflection, and refinement of piano skills while integrating vocal techniques.

Part 2 Results of Study and compare Piano Playing Skills of students before and after implementing the Piano Training Course Based on the Task-Driven Method.

Piano training course based on the Task-Driven Method, and the students' Piano Playing Skills before and after teaching are compared and analyzed. The test results of students' Piano Playing Skills before and after the experiment are as follows:

Table 4.1 Study Results of Piano Playing Skills of students before and after implementing the Piano Training Course Based on the Task-Driven Method.

Number of samples	Before class score (Pre-test) Full score 30 points	After class score (Post-test) Full score 30 points	Differences between scores (D)
1	20	27	7
2	17	26	9
3	14	23	9
4	14	24	10
5	17	26	9
6	15	24	9
7	13	22	9
8	20	27	7
9	16	24	8
10	11	23	12
11	11	21	10
12	14	24	10
13	14	23	9
14	11	22	11
15	18	29	11
16	14	26	12
17	11	22	11
18	14	25	11
19	12	21	9
20	18	27	9
21	12	21	9
22	16	26	10
23	11	18	7
24	17	28	11
25	14	24	10
26	13	24	11
27	11	18	7
28	17	28	11

Table 4.1 (Continue)

Number of samples	Before class score (Pre-test) Full score 30 points	After class score (Post-test) Full score 30 points	Differences between scores (D)
29	13	23	10
30	16	26	10
Sum	**434**	**722**	**288**
Average score ($\bar{X}$)	**14.47**	**24.07**	**9.60**

The table 4.1 demonstrates the improvement in students' piano playing skills after completing the Piano Training Course Based on the Task-Driven Method. On average, the pre-test score was approximately 14.47, while the post-test score increased to about 24.07. This reflects an average improvement of 9.60 points across all participants. Each student showed progress, with individual improvements ranging from 7 to 12 points. For instance, some students improved by as much as 12 points, while others showed more modest gains of 7 points. Overall, the results clearly indicate that the Piano Training Course Based on the Task-Driven Method has been effective in enhancing the piano skills of all students, as evidenced by the notable increase in test scores.

Table 4.2 Study Results of Comparison of Piano Playing Skills of students before and after implementing the Piano Training Course Based on the Task-Driven Method

Piano Playing Skills	n	Full Scores	$\bar{X}$	SD.	t	p
Before class	30	30	14.47	2.70	36.80**	0.00
After class	30	30	24.07	2.75		

** Statistically significant at level. 01 ($p < .01$)

It can be seen from Table 4.2 that the average score of piano playing skills of 30 students before the training course was 14.47, while after the course, the average score increased to 24.07. This indicates a significant improvement in students' piano playing skills after completing the Piano Training Course Based on the Task-Driven Method. The standard deviation (SD) before the course was 2.70, and after the course, it was 2.75, showing consistency in score distribution. The t-value of 36.80 and p-value of 0.00 ($p < .01$) indicate that the improvement is statistically significant at the 0.01 level. These results confirm that the Piano Training Course Based on the Task-Driven Method effectively enhances students' piano playing skills, aligning with the research hypothesis.

Chapter 5
Conclusion Discussion and Recommendations

The development of a piano training course based on the Task-Driven Method aims to design a structured program that enhances piano playing skills for undergraduate students. The objectives include developing a piano training course using the Task-Driven Method and comparing students' piano playing skills before and after its implementation. By emphasizing meaningful tasks, active engagement, and reflective practices, this study seeks to provide valuable insights into the field of music education. The research methodology is structured as follows:

1. This study focuses on enhancing piano playing skills among undergraduate students through a piano training course based on the Task-Driven Method. The population consists of 120 students enrolled Undergraduate Students in the early childhood program at Chongqing Media Vocational College during the first semester of the 2024 academic year, with a sample group of 30 students selected through cluster random sampling to represent varying ability levels. The study examines the impact of the training course, where the independent variable is the piano training course based on the Task-Driven Method, and the dependent variable is students' piano playing skills. The course is systematically designed into four key chapters—Lecture Presentation, Skills Demonstration in Teaching, Piano Skills Demonstration, and Vocal Skills Demonstration—totaling 12 hours of structured learning. By incorporating meaningful tasks and active engagement, this course aims to provide a comprehensive approach to improving students' piano proficiency.

2. The research uses a Piano Training Course based on the Task-Driven Method, which involves five steps: Task Identification, Task Design and Planning, Task Implementation, Reflection and Evaluation, and Reinforcement and Refinement. The course is structured to develop technical proficiency, musicality, and creativity. Additionally, a structured rubric is created for assessing piano playing skills, with IOC results showing good consistency (0.67–1.00). Test reliability is ensured through test-retest and Cronbach's Alpha, aiming for a value of at least 0.95.

3. This research uses an experimental design with a One-Group Pretest-Posttest approach. It evaluates students' piano playing skills before and after implementing the Piano Training Course based on the Task-Driven Method. The experimental data are analyzed using mean, standard deviation, and t-test to assess the effectiveness of the training.

Conclusion

Based on the research theme, the study on improving piano playing skills through the Piano Training Course based on the Task-Driven Method can be summarized as follows. The research findings are divided into two key areas, which align with the research objectives and hypothesis testing:

1. The students' piano playing skills showed significant improvement after completing the piano training course based on the Task-Driven Method. The average pre-test score was 14.47, while the post-test score increased to 24.07, reflecting an average improvement of 9.60 points. Individual progress ranged from 7 to 12 points, with all students demonstrating some level of improvement, indicating the effectiveness of the piano training course based on the Task-Driven in enhancing their skills.

2. The improvement in students' piano playing skills was statistically significant. The pre-course score average was 14.47, and post-course, it increased to 24.07. The standard deviation was consistent before and after the course, at 2.70 and 2.75, respectively. The t-value of 36.80 and p-value of 0.00 ($p < .01$) confirm the significant improvement at the 0.01 level, supporting the hypothesis that the piano training course based on the Task-Driven Method effectively enhanced students' skills.

Discussion

The results of this study provide valuable insights into the effectiveness of the piano training course based on the Task-Driven Method in improving students' piano playing skills. With significant improvements observed in both the average scores and individual student progress, the findings highlight the potential of this structured, task-based approach in enhancing musical proficiency. The following discussion will explore the implications of these results.

1. The results of this study demonstrate a significant improvement in students' piano playing skills after completing the piano training course based on the Task-Driven Method (TDM). The average pre-test score was 14.47, while the post-test score increased to 24.07, reflecting an average improvement of 9.60 points. Individual progress ranged from 7 to 12 points, with all students showing some level of improvement. This finding supports the effectiveness of the Task-Driven Method in enhancing students' piano playing skills. Incorporating the findings with existing theories, the improvement observed can be explained through several key educational principles. For instance, Kolb’s (1984) experiential learning theory

emphasizes the importance of learning through reflection and active engagement in real-world tasks. In this study, the students were actively involved in meaningful piano tasks, such as understanding music theory, developing technical skills, and practicing complex pieces. The results, with improvements in both technical proficiency and musicality, reflect how engaging students in tasks that require them to apply their knowledge leads to a more effective and comprehensive learning experience. As the students progressed through the course, they were required to engage in reflection, plan their learning, and adjust their methods—critical steps in Kolb's learning cycle. Additionally, Dewey's (1938) perspective on active and participatory learning is evident in the design of this course. Dewey argued that learning is most effective when students interact with their environment and solve problems within a real-world context. The piano training course based on the Task-Driven Method provided students with the opportunity to engage in authentic tasks, such as replicating piano techniques, playing complex pieces, and integrating vocal skills with piano performance. This approach is closely aligned with Dewey's belief that students learn best when they can directly apply their knowledge and skills in practical, hands-on activities. As the study results show, the more engaged students were with these tasks, the more they improved their skills. Furthermore, the study aligns with Vygotsky's (1978) Zone of Proximal Development (ZPD), which posits that students can achieve higher levels of understanding when working in collaboration with peers or instructors. Throughout the course, students engaged in both individual and group activities, with some working more independently while others benefited from collaboration and peer support. The improvement in students' skills indicates that the scaffolding provided by the Task-Driven Method, which includes collaborative problem-solving and ongoing feedback, was key to enhancing their performance. As students reflected on their own and others' performances, they not only received constructive feedback but also contributed to each other's learning, reinforcing Vygotsky's concept of social learning. In Chapter 2: Skills Demonstration in Teaching, students demonstrated their technical abilities by replicating the teacher's movements. This chapter is particularly relevant to Piaget's (1973) constructivist theory, which emphasizes that knowledge is actively constructed through experience. The students, while practicing fundamental techniques like finger placement and rhythm, were building their knowledge through hands-on tasks and active problem-solving. Those who had more experience were able to model and lead discussions, reinforcing the concept that learning is a constructive and dynamic process. The improvement observed, especially among students who initially struggled, shows that

when students are given the opportunity to actively apply and refine their knowledge, they develop stronger skills over time. In Chapter 3: Piano Skills Demonstration, students were assigned complex pieces to assess their ability to manage rhythm, expression, and coordination. For some students, the increased complexity of the task was initially overwhelming. However, through ongoing reflection and practice, students showed significant improvement, with their final performances reflecting better technical execution. This aspect of the course supports Johnson & Johnson's (1994) research on task-based learning, which suggests that tasks that simulate real-world scenarios help students bridge the gap between theoretical knowledge and practical application. By engaging in tasks that were progressively more challenging, students not only learned the necessary technical skills but also developed problem-solving abilities that were essential to mastering more complex pieces. Lastly, the integration of vocal skills with piano playing in Chapter 4 reflects Willis's (1996) assertion that tasks should closely resemble real-world challenges to engage students fully. As students worked on synchronizing their singing with playing, they encountered the challenges of coordination and expression. These challenges mirrored real-world musical performance scenarios, where coordination between different musical elements is key. The improvement in students' ability to combine both skills further supports Deci & Ryan's (1985) motivation theory, which highlights the importance of meaningful and challenging tasks in fostering intrinsic motivation. The students' willingness to engage with these complex tasks and their progress over the course reflect the motivation and sense of accomplishment they gained through task-based learning.

2. The results of this study indicate a statistically significant improvement in students' piano playing skills after completing the Task-Driven Method (TDM) course. The pre-course score average of 14.47 increased to a post-course average of 24.07, reflecting an average improvement of 9.60 points. The consistency in the standard deviation before and after the course (2.70 and 2.75, respectively) further supports the reliability of these results. The t-value of 36.80 and p-value of 0.00 ($p < 0.01$) confirm that the improvement is statistically significant, supporting the hypothesis that the Task-Driven Method effectively enhanced the students' piano playing skills. This outcome aligns with several key educational theories that emphasize the importance of experiential, task-based learning. As outlined by Kolb (1984), experiential learning enables students to acquire skills through active engagement with real-world tasks. In this study, the students' increased proficiency in piano playing can be attributed to their hands-on learning experiences, where they applied

theoretical knowledge to practical scenarios. Dewey (1938) argued that learning is most effective when students are actively engaged in the learning process, rather than passively receiving information. The Task-Driven Method's focus on task identification, design, and implementation provided students with real challenges that required them to practice and apply their skills, leading to significant improvement. This active engagement also aligns with Piaget's (1973) constructivist theory, which asserts that learners actively construct knowledge through experiences. In this context, students built upon their prior knowledge and developed new skills by repeatedly applying their learning in progressively more complex tasks. The consistency in the standard deviation before and after the course suggests that the improvement was evenly distributed across students, which is indicative of the Task-Driven Method's broad applicability and effectiveness in addressing individual learning needs. While all students showed some level of improvement, those with varying starting points in terms of skill proficiency were able to make noticeable gains, further confirming the method's ability to support diverse learners. In line with Johnson & Johnson's (1994) research on task-based learning, which emphasizes the importance of real-world tasks in promoting critical thinking and problem-solving skills, the students in this study demonstrated a marked improvement in both technical proficiency and overall musicality. The task-based approach in the TDM allowed students to connect theoretical concepts with practical application, reinforcing their understanding and skill development. Furthermore, studies on task-driven methods in music education provide additional insights into the effectiveness of the TDM. Smith (2014) emphasized the importance of instructor attentiveness and individualized instruction, noting that students valued personal feedback, although challenges like large class sizes remained. Similarly, Johnson (2013) found that group piano instruction fostered technical proficiency and collaborative skills, which aligns with the TDM's emphasis on guided practice and peer interactions. These studies reinforce the effectiveness of a structured, supportive environment for enhancing students' piano skills. Additionally, Williams (2023) and Brown (2010) stressed the importance of comprehensive piano education programs for preparing future music educators. Their findings underscore the value of the TDM's task-driven structure, which equips students with both performance and teaching skills by encouraging continuous learning and application. Moreover, Davis (2020) and Miller (2018) highlighted the impact of research-based and task-oriented learning strategies, which significantly improve technical performance and musicianship—key components of the TDM framework. Finally, the p-value of 0.00 ($p < 0.01$) further supports the

validity of the results, confirming that the observed improvement is highly significant and not due to chance. This statistical evidence, combined with the theoretical underpinnings of the piano training course based on the Task-Driven Method, provides strong support for the effectiveness of this approach in enhancing students' piano playing skills.

Recommendations

These suggestions aim to optimize the learning process and further support students' skill development.

1. Recommendations Based on This Study

1.1 The study highlights the effectiveness of piano training course based on the Task-Driven Method, but incorporating more individualized instruction could further enhance student performance. Small group sizes or one-on-one sessions would ensure more focused feedback and tailored guidance for each student, addressing their unique learning needs.

1.2 Optimize the benefits of the Task-Driven Method (TDM), it is recommended that students increase their practice time and frequency. Encouraging regular, focused practice sessions would allow students to refine their skills more effectively and achieve greater improvements in their piano proficiency.

1.3 Extending the curriculum to include more complex and advanced tasks could further challenge students and help them develop a higher level of musicianship. Tasks that incorporate various genres, techniques, and performance settings could deepen their understanding and skills.

2. Suggestions for Future Research:

2.1 Future research could investigate the long-term effects of the Task-Driven Method on students' piano proficiency. A follow-up study measuring skill retention and continued improvement after the course would provide valuable insight into the sustainability of the approach over time.

2.2 Include a Larger and More Diverse Sample to enhance the generalizability of the findings, future studies should include a larger and more diverse sample of participants, considering different levels of prior musical experience, cultural backgrounds, and age groups. This would provide a broader perspective on the effectiveness of the piano training course based on the Task-Driven Method across various populations.

References

Anderson, L. W., Krathwohl, D. R., & Bloom, B. S. (2001). **A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives.** Longman.

Black, P., & Wiliam, D. (1998). **Assessment and classroom learning.** Assessment in Education: Principles, Policies, and Practices, 5(1), 7-74. https://doi.org/10.1080/0969595980050102

Bonwell, C. C., & Eison, J. A. (1991). Active learning: Creating excitement in the classroom. **ASHE-ERIC Higher Education Report No. 1.** ERIC Clearinghouse on Higher Education.

Bransford, J. D., Brown, A. L., & Cocking, R. R. (2000). How people learn: Brain, mind, experience, and school (Expanded edition). National Academy Press.

Brown, J. S., Collins, A., & Duguid, P. (2000). **Situated cognition and the culture of learning. Educational researcher,** 18(1), 32-42. https://doi.org/10.3102/00346543018001032

Clark, R. C., & Mayer, R. E. (2016). **e-Learning and the science of instruction: Proven guidelines for consumers and designers of multimedia learning** (4th ed.). Wiley.

Davidson, J. (2004). **The Musician's Mind: Teaching, Learning, and Performance in the Age of Cognitive Science.** Oxford University Press.

Deci, E. L., & Ryan, R. M. (1985). **Intrinsic motivation and self-determination in human behavior.** Springer Science & Business Media.

Dewey, J. (1938). Experience and education. Macmillan.

Dörnyei, Z., & Murphey, T. (2003). **Group dynamics in the language classroom.** Cambridge University Press.

Duffy, T. M., & Cunningham, D. J. (2001). Constructivism: Implications for the design and delivery of instruction. **In Handbook of research on educational communications and technology** (pp. 170-198). Springer.

Ellis, R. (2003). **Task-based language learning and teaching.** Oxford University Press.

Ericsson, K. A., Krampe, R. T., & Tesch-Römer, C. (1993). **The role of deliberate practice in the acquisition of expert performance.** Psychological Review, 100(3), 363–406.

Gagné, R. M. (1985). **The conditions of learning and theory of instruction (4th ed.).** Holt, Rinehart, and Winston.

Gagné, R. M., Briggs, L. J., & Wager, W. W. (2005). **Principles of Instructional Design.** Wadsworth.

Hallam, S. (2001). **The Power of Music: A Researcher's Perspective.** Oxford University Press.

Hallam, S. (2006). **Music psychology in education.** Institute of Education, University of London.

Hmelo-Silver, C. E. (2004). **Problem-based learning: What and how do students learn?** Educational Psychology Review, 16(3), 235-266. https://doi.org/10.1023/B:EDPR.0000034022.16470.f3

Johnson, D. W., & Johnson, R. T. (1994). **Learning together and alone: Cooperative, competitive, and individualistic learning (4th ed.).** Allyn & Bacon.

Knowles, M. S., Holton, E. F., & Swanson, R. A. (2015). **The Adult Learner: The Definitive Classic in Adult Education and Human Resource Development (8th ed.).** Routledge.

Kolb, D. A. (1984). **Experiential Learning: Experience as the Source of Learning and Development.** Prentice Hall.

Lehmann, A. C., Sloboda, J. A., & Woody, R. H. (2007). **Psychology for musicians: Understanding and acquiring the skills.** Oxford University Press.

Littlewood, W. (2004). **Task-based teaching in context.** Cambridge University Press.

McPherson, G. (2009). **The Science and Psychology of Music Performance.** Oxford University Press.

McPherson, G. E., & Gabrielsson, A. (2002). **From sound to sign.** In R. Parncutt & G. E. McPherson (Eds.), The science and psychology of music performance: Creative strategies for teaching and learning (pp. 99–115). Oxford University Press.

Merriam, S. B., & Bierema, L. L. (2014). **Adult learning: Linking theory and practice.** Wiley.

Pace, R. (1995). **A Musician's Guide to Teaching the Piano.** GIA Publications.

Piaget, J. (1973). **To understand is to invent: The future of education.** Grossman Publishers.

Pintrich, P. R. (2003). A motivational science perspective on the role of student motivation in learning and teaching contexts. **Journal of Educational Psychology,** 95(4), 667-686.

Reigeluth, C. M. (1999). **Instructional-Design Theories and Models: A New Paradigm of Instructional Theory (Vol. II).** Lawrence Erlbaum Associates.

Richards, J. C., & Rodgers, T. S. (2001). **Approaches and methods in language teaching.** Cambridge University Press.

Rink, J. (2002). **The Practice of Performance: Studies in Musical Interpretation.** Cambridge University Press.

Salas, E., Tannenbaum, S. I., Kraiger, K., & Smith-Jentsch, K. A. (2012). The Science of Training and Development in Organizations: What Matters in Practice. **Psychological Science in the Public Interest,** 13(2), 74–101.

Savery, J. R. (2006). Overview of problem-based learning: Definitions and distinctions. **Interdisciplinary Journal of Problem-Based Learning**, 1(1), 9-20.

Schön, D. A. (1987). **Educating the reflective practitioner: Toward a new design for teaching and learning in the professions.** Jossey-Bass.

Sloboda, J. A. (1996). **The acquisition of musical performance expertise: Deconstructing the "talent" account of individual differences in musical expressivity.** In K. A. Ericsson (Ed.), The road to excellence: The acquisition of expert performance in the arts and sciences, sports, and games (pp. 107–126). Erlbaum.

Swan, M. (2005). **Legislation for language learning: Tasks and focus.** Oxford University Press.

Swanwick, K. (1999). **Teaching music musically.** Routledge.

Sweller, J., van Merriënboer, J. J., & Paas, F. (2019). **Cognitive architecture and instructional design: 20 years later.** Educational Psychology Review, 31(2), 261-292.

Tannenbaum, S. I., & Yukl, G. (1992). **Training and Development in Work Organizations.** Annual Review of Psychology, 43(1), 399–441.

Van den Branden, K. (2006). **Task-based language education: From theory to practice.** Cambridge University Press.

Vygotsky, L. S. (1978). **Mind in society: The development of higher psychological processes.** Harvard University Press.

Willis, J. (1996). **A framework for task-based learning.** Longman.

Willis, J., & Willis, D. (2007). **Doing task-based teaching.** Oxford University Press.

Zimmerman, B. J. (2002). **Becoming a self-regulated learner: An overview.** Theory into Practice, 41(2), 64–70.

Appendixes

Appendix A
List of Specialists and Letters of Specialists Invitation for IOC Verification

List of Specialists and Letters of Specialists Invitation for IOC Verification

1.	Fangkamol Pethkliang	Assistant Professor, Faculty of Education Bansomdejchaopraya Rajabhat University
2.	Sasikanchana Yenaeng	Assistant Professor Dr., Faculty of Education Bansomdejchaopraya Rajabhat University
3.	He Junjin	Dr., Xi'an physical Eduction University

Appendix B
Official Letter

Ref.No. MHESI 0643.14/8

Bansomdejchaopraya
Rajabhat University
1061 Itsaraparb Hirunrujee
Thonburi Bangkok 10600

8 January 2024

RE: Invitation to validate research instrument

Dear Assistant Professor Fangkamol Pethkliang

Mr.Chen Chen is a graduate student in Master of Education Program in Curriculum and Instruction of Bansomdejchaopraya Rajabhat University. He is undertaking research entitled "The Development of a Piano Training Course Based on the Task-Driven Method to Improve Piano Playing Skills for Undergraduate Students"

The thesis adversity committee has considered that you are an expert in this topic. Your recommendations would be useful for further improvement of this research instrument.

We respectfully request your assistance in validating a research instrument that is attached to this message. We would be grateful for any help you can provide in this matter. We would like to express our sincere appreciation for your time Mr.Chen Chen at chenchen1215158728@qq.com

Thank you for considering our request

Sincerely,

(Assistant Professor Dr.Tanaput Chancharoen)
Vice Dean, For Dean of the Graduate School

Bansomdejchaopraya Rajabhat University
Tel.+662-473-7000 ext. 1814
www.bsru.ac.th

Ref.No. MHESI 0643.14/9

Bansomdejchaopraya
Rajabhat University
1061 Itsaraparb Hirunrujee
Thonburi Bangkok 10600

8 January 2024

RE: Invitation to validate research instrument

Dear Assistant Professor Dr.Sasikanchana Yenaeng

Mr.Chen Chen is a graduate student in Master of Education Program in Curriculum and Instruction of Bansomdejchaopraya Rajabhat University. He is undertaking research entitled "The Development of a Piano Training Course Based on the Task-Driven Method to Improve Piano Playing Skills for Undergraduate Students"

The thesis adversity committee has considered that you are an expert in this topic. Your recommendations would be useful for further improvement of this research instrument.

We respectfully request your assistance in validating a research instrument that is attached to this message. We would be grateful for any help you can provide in this matter. We would like to express our sincere appreciation for your time Mr.Chen Chen at chenchen1215158728@qq.com

Thank you for considering our request

Sincerely,

(Assistant Professor Dr.Tanaput Chancharoen)
Vice Dean, For Dean of the Graduate School

Bansomdejchaopraya Rajabhat University
Tel.+662-473-7000 ext. 1814
www.bsru.ac.th

Ref.No. MHESI 0643.14/10

Bansomdejchaopraya
Rajabhat University
1061 Itsaraparb Hirunrujee
Thonburi Bangkok 10600

8 January 2024

RE: Invitation to validate research instrument

Dear Dr.He Junjin

Mr.Chen Chen is a graduate student in Master of Education Program in Curriculum and Instruction of Bansomdejchaopraya Rajabhat University. He is undertaking research entitled "The Development of a Piano Training Course Based on the Task-Driven Method to Improve Piano Playing Skills for Undergraduate Students"

The thesis adversity committee has considered that you are an expert in this topic. Your recommendations would be useful for further improvement of this research instrument.

We respectfully request your assistance in validating a research instrument that is attached to this message. We would be grateful for any help you can provide in this matter. We would like to express our sincere appreciation for your time Mr.Chen Chen at chenchen1215158728@qq.com

Thank you for considering our request

Sincerely,

(Assistant Professor Dr.Tanaput Chancharoen)
Vice Dean, For Dean of the Graduate School

Bansomdejchaopraya Rajabhat University
Tel.+662-473-7000 ext. 1814
www.bsru.ac.th

Appendix C
Research Instruments

Piano Training Course Based on the Task-Driven Method

1. Objectives

1. To develop fundamental piano skills, including proper posture, hand placement, and basic note reading, to build a solid foundation for further musical learning.

2. To enhance students' ability to play simple melodies and scales through focused practice and task-driven activities, improving technique and musicality.

2. Content: Chapter 1 - Lecture Presentation

This chapter will provide an introduction to the basics of piano playing, focusing on the following key concepts:

Posture: The importance of proper sitting posture, how to align the body, and the effects of posture on playing technique.

Hand Placement: Correct hand positioning on the keyboard, ensuring fingers are properly curved, relaxed, and positioned for ease of movement.

Basic Note Reading: An introduction to music notation, identifying notes on the staff, and understanding basic rhythms.

Introduction to Scales and Simple Melodies: The role of scales in developing finger strength and coordination, and playing simple melodies with basic finger movements.

3. Structure

The course will be broken down into clear sections, with each step building on the previous one, as follows:

Introduction: Brief overview of the course objectives, learning outcomes, and importance of foundational skills.

Lecture Presentation: Explanation and demonstration of posture, hand placement, and note reading.

Practical Demonstration: Step-by-step demonstration of basic exercises for posture, hand placement, and simple scale practice.

Practice Time: Students apply what they’ve learned in practice, with guidance and feedback from the instructor.

Reflection and Discussion: Open session for students to ask questions, discuss challenges, and share insights on their learning experiences.

4. Time Allocation (3 Hours)

Introduction and Overview (15 minutes)

Lecture Presentation (30 minutes)

Posture and hand placement

Basic note reading

Task Implementation (Practice) (60 minutes)

Demonstration and student practice of basic skills (posture, hand placement, note reading, scales)

Reflection and Evaluation (30 minutes)

Students share their progress and identify challenges

Instructor feedback and suggestions for improvement

Reinforcement and Refinement (45 minutes)

Extra practice on refined tasks based on feedback

Final Q&A and course wrap-up (15 minutes)

5. Learning Activities

Step 1: Task Identification

Introduction to Posture: Use instructional videos or diagrams to demonstrate the correct sitting posture when playing the piano. For example, explaining how to sit with a straight back, feet flat on the ground, and how the arms should align with the keyboard for ease of movement.

Explaining Hand Placement: Demonstrate the correct hand positioning, including how to curve the fingers naturally and position them on the keys. Visual aids such as diagrams showing the ideal hand shape and finger placement will help solidify this concept.

Introduction to Note Reading: Briefly introduce the basics of music notation, including how to read simple notes (e.g., C, D, E) and how to recognize their positions on the staff. Provide diagrams or sheet music to visualize these concepts.

Step 2: Task Design and Planning

Creating Exercises for Posture and Hand Placement: Design specific exercises for students to practice proper posture and hand placement. For example, have them practice sitting in the correct position and adjusting their hands on the keyboard until they are comfortable.

Note Reading Exercises: Provide simple note identification exercises. Students can practice identifying notes on the staff and matching them to the corresponding keys on the piano.

Instructional Materials: Provide students with instructional materials such as diagrams for hand placement, videos demonstrating correct posture, and sheet music for simple exercises.

Step 3: Task Implementation

Demonstration and Practice: The instructor will demonstrate the correct posture, hand placement, and note reading while playing simple exercises (e.g., scales). Students will then replicate the demonstration and practice individually. The focus will be on getting the fundamentals right, such as the correct hand position and finger movements.

Playing Basic Scales and Simple Melodies: Students will practice playing simple scales and melodies while paying attention to posture and hand placement. This provides them with an opportunity to apply what they've learned in a real playing context.

Instructor Feedback: The instructor will circulate around the room, offering real-time feedback and adjustments to students as they practice.

Step 4: Reflection and Evaluation

Self-Reflection: After completing their practice, students will be asked to reflect on what they found challenging and what they felt they were able to do well. They can write or verbally share their reflections.

Peer and Instructor Feedback: Students will receive feedback from both their peers (if applicable) and the instructor. The instructor will give targeted suggestions on improving posture, finger technique, and note reading.

Goal Setting: Based on the feedback and reflection, students will set goals for themselves, such as improving finger strength or working on a specific scale.

Step 5: Reinforcement and Refinement

Revisiting Challenging Tasks: Students will revisit the tasks they found challenging and practice them again, applying the feedback they received. For example, if they struggled with hand placement or finger movement, they will practice those aspects more intensely.

Additional Exercises for Practice: Provide additional exercises for practice, such as variations of scales, simple pieces of music, or hand placement drills to help solidify the skills.

Continued Instructor Support: The instructor will continue to provide guidance, reinforcing the key concepts and helping students refine their playing. Further demonstrations and tips will be offered to help improve their technique.

6. Resources and Materials

Instructional Videos: Demonstrations of correct posture, hand placement, and note reading.

Diagrams and Visual Aids: Diagrams of proper hand positioning, keyboard layout, and music notation.

Sheet Music: Simple melodies and scales for practice.

Piano or Keyboard: Ensure every student has access to a piano or keyboard for the practice session.

7. Assessment and Evaluation

Formative Assessment:

Observation of students' practice during Task Implementation (Step 3).

Instructor provides feedback on posture, hand placement, and note reading.

Summative Assessment:

Evaluation of the students' progress based on their ability to perform simple scales and melodies with correct technique by the end of the session.

Reflection sheets where students identify what they've learned and areas they need to improve.

Final Evaluation:

A brief oral quiz at the end to assess students' understanding of posture, hand placement, and basic note reading.

Feedback session for students to set goals for further practice.

Piano Training Course Based on the Task-Driven Method

1. Objectives

1. To develop students' ability to teach basic piano techniques such as playing simple scales and chords to others.

2. To enhance students’ communication and teaching skills by having them demonstrate and explain piano techniques clearly to their peers.

2. Content: Chapter 2 - Skills Demonstration in Teaching

This chapter focuses on teaching the basic piano skills that students have learned in the previous chapter, while also developing their ability to explain these techniques to others. Key topics include:

Teaching Basic Scales: Instruction on how to break down scales into understandable steps for others.

Teaching Chords: Explaining how to teach basic chords, including major and minor triads, and how to help beginners understand the finger positions and transitions between chords.

Effective Communication: Tips on how to explain piano concepts clearly and concisely, focusing on body language, clarity of instruction, and patience when guiding students.

Demonstration Techniques: How to demonstrate piano techniques in a way that is easy to follow for others, including slowing down movements, verbalizing finger movements, and using visual aids.

3. Structure

The course will be organized in a way that gradually moves students from learning to teaching, with ample opportunity for practice and feedback. The structure will include:

Introduction: Overview of the chapter, explaining the importance of teaching and demonstrating piano skills to others. Clarify the learning outcomes of the session.

Lecture Presentation: Explanation of the steps involved in teaching basic piano techniques (scales and chords). The instructor will also demonstrate these techniques and discuss the strategies for teaching them effectively.

Peer Teaching Practice: Students will take turns teaching and demonstrating the piano skills they have learned to their classmates in structured peer-teaching activities.

Reflection and Feedback: After each teaching round, students will reflect on their experiences, followed by a feedback session with the instructor and peers.

Reinforcement and Refinement: Further practice in teaching, with additional challenges presented to improve teaching skills.

4. Time Allocation (3 Hours)

Introduction and Overview (15 minutes)

Explanation of the chapter's goals and activities. Discussion of the importance of teaching skills.

Lecture Presentation (30 minutes)

Demonstration of basic piano techniques (scales and chords)

Teaching strategies for effective communication and demonstration.

Task Implementation (Peer Teaching) (75 minutes)

Students break into pairs or small groups and take turns teaching scales and chords to each other.

Instructors provide real-time observation and feedback during these peer-teaching sessions.

Reflection and Evaluation (30 minutes)

Students share their experiences and reflect on the challenges of teaching.

Peer and instructor feedback on their teaching effectiveness.

Reinforcement and Refinement (30 minutes)

Students apply feedback and engage in additional peer-teaching rounds.

The instructor may present new teaching challenges, such as introducing more complex scales or chords to teach.

5. Learning Activities

Step 1: Task Identification

Discussion on Teaching Skills: The instructor introduces the importance of effective teaching and the specific skills students need to develop. Students are asked to identify what challenges they anticipate when teaching.

Understanding Teaching Tasks: The instructor explains the tasks they will be teaching (scales and chords) and the key teaching points to cover for each. For example, breaking down scales into steps (starting with one hand, then adding the other) or teaching chord fingerings.

Step 2: Task Design and Planning

Planning Peer-Teaching Activities: Students will be divided into pairs or small groups. Each group will plan how to teach a simple scale or chord to their peers. This includes planning how to explain the finger movements, how to

demonstrate it on the piano, and what resources (flashcards, diagrams) they will use.

Creating Teaching Materials: Students will create basic flashcards or charts for their teaching sessions, using visual aids to enhance their teaching process.

Step 3: Task Implementation

Peer Teaching: In this step, students will take turns teaching one another. One student will act as the teacher, demonstrating a scale or chord while explaining the steps and providing guidance. The other student will act as the learner, following the instructions and asking questions if needed.

Instructor Guidance: The instructor will observe and provide feedback on each student's teaching style. This includes noting how clearly they explain concepts, their body language, and their use of teaching materials.

Step 4: Reflection and Evaluation

Self-Reflection: After each round of teaching, students will reflect on how they felt about the teaching process. What went well? What could they improve? Students will write down their thoughts or share them verbally.

Peer and Instructor Feedback: After each teaching session, both the instructor and peers will provide feedback. This feedback will focus on the clarity of instruction, demonstration effectiveness, and how well the teacher engaged the learner.

Step 5: Reinforcement and Refinement

Revisiting Teaching Tasks: Students will reapply feedback and teach the same skills again, this time trying to improve upon their earlier attempts.

Advanced Teaching Challenges: To further refine their skills, students may be challenged to teach slightly more complex tasks (e.g., playing a chord progression or a two-handed scale) to practice new teaching strategies.

Instructor's Additional Challenges: The instructor may present new challenges, such as incorporating improvisation or introducing a more complex musical concept to be taught.

6. Resources and Materials

Flashcards: Simple visual aids to help explain scales, chords, and finger positions.

Charts: Diagrams for scales, chords, and basic finger positions for quick reference during teaching.

Piano/Keyboard: Each student should have access to a piano or keyboard during the session for both practicing and teaching.

Instructional Videos: Short videos demonstrating how to teach specific techniques like scales and chords.

7. Assessment and Evaluation

Formative Assessment:

During peer-teaching, the instructor will observe each student's ability to explain and demonstrate basic piano techniques.

Peer feedback will also be a form of continuous assessment, focusing on how well students can communicate their teaching and how clear their demonstrations are.

Summative Assessment:

At the end of the session, students will complete a reflection sheet on their teaching experience, identifying strengths and areas for improvement.

The instructor will provide final feedback on each student's overall teaching ability, highlighting key aspects to work on for future teaching.

Instructor Feedback:

After the peer-teaching sessions, the instructor will provide individualized feedback on each student's teaching approach, including specific recommendations for improvement.

Piano Training Course Based on the Task-Driven Method

1. Objectives

1. To develop students' ability to demonstrate their piano skills through the performance of a short piece of music that integrates technical skills and musical expression.

2. To provide students with feedback on their performance, allowing them to reflect on and refine their technique and musicality.

2. Content: Chapter 3 - Piano Skills Demonstration

This chapter focuses on helping students demonstrate their piano skills through the performance of a piece of music. The emphasis will be on integrating the technical aspects learned in previous chapters (such as posture, hand placement, and finger technique) with musicality, expression, and performance.)

3. Structure

The structure of this chapter will be designed to give students ample opportunity to perform and receive feedback, as well as to refine their skills:

Introduction: Overview of the chapter, objectives, and activities. Discuss the importance of integrating technical skills with musical expression in performance.

Lecture Presentation: A demonstration of how to prepare for a performance, including how to practice the piece and focus on technical details while maintaining musicality.

Performance Practice: Students will select a short piece of music to perform. They will practice performing this piece, incorporating both technical aspects and expression.

Reflection and Feedback: After the performance, students will reflect on their strengths and areas for improvement. Feedback will be provided by the instructor and peers.

Reinforcement and Refinement: Based on feedback, students will practice the piece again, focusing on improving the areas identified. The instructor may introduce additional pieces for further practice and refinement.

4. Time Allocation (3 Hours)

Introduction and Overview (15 minutes)

Overview of the chapter’s goals, discussion on the integration of technical skills and musicality in performance.

Lecture Presentation (30 minutes)

Demonstration of how to prepare for a piano performance.

Emphasis on technical execution and musical expression.

Task Implementation (Performance Practice) (75 minutes)

Students select and practice a short piece of music.

Students perform their piece in front of the class or in small groups.

Instructors provide real-time feedback during the performances.

Reflection and Evaluation (30 minutes)

After the performances, students reflect on their experience and receive feedback from peers and instructors.

Discussion on how students can continue to refine their performance skills.

Reinforcement and Refinement (30 minutes)

Students apply feedback and practice the piece again, focusing on improvement.

Instructor may introduce a new piece of music for practice.

5. Learning Activities

Step 1: Task Identification

Understanding the Performance Task: The instructor explains that the task is to perform a short piece of music, integrating the technical aspects learned previously, such as correct posture and finger placement, and expressing musicality through dynamics, articulation, and phrasing.

Selecting the Piece: Students will be given options for short, beginner-friendly pieces that allow them to showcase their skills. The instructor will guide them in choosing a piece that is within their ability while allowing for expressive elements to be added.

Step 2: Task Design and Planning

Piece Selection: Students will choose a simple piece of music that incorporates both technical elements (scales, basic chord progressions, etc.) and allows for expressive performance (e.g., a piece with dynamics or phrasing).

Practice Planning: Students will create a practice schedule, breaking down the piece into smaller sections and planning specific techniques to focus on (e.g., working on finger technique for one section, focusing on musical phrasing in another).

Rehearsal Strategy: Students will be encouraged to practice slowly, focusing on accurate note playing, correct finger placement, and evenness of sound. They will also practice bringing out musical expression (e.g., dynamics, tempo changes) during their rehearsal.

Step 3: Task Implementation

Student Performances: Each student will perform their selected piece for the class or in small groups. The focus will be on performing with proper posture, hand placement, finger technique, and musical expression.

Instructor and Peer Observation: While students perform, the instructor will observe and take notes on the technical execution and musicality. Peers will be encouraged to provide supportive feedback after each performance.

Real-time Feedback: The instructor will give real-time feedback during the performance, pointing out areas that need improvement (e.g., posture correction, finger placement, or phrasing adjustments) and offering tips for improvement.

Step 4: Reflection and Evaluation

Self-Reflection: After performing, students will write or verbally share their reflections on the performance. They will consider questions like: What went well? What could I improve? Did I feel connected to the music during the performance?

Peer Feedback: Students will provide feedback to each other, highlighting strengths they observed and offering constructive suggestions for improvement.

Instructor Feedback: The instructor will provide detailed feedback on both the technical execution and musical expression, focusing on what the student did well and where improvement is needed (e.g., posture, dynamics, timing).

Step 5: Reinforcement and Refinement

Instructor Guidance: The instructor will circulate and offer additional guidance during the second round of practice, helping students further refine their technique and musicality.

Further Performance: If time permits, students will perform the piece a second time, focusing on applying the feedback they received during the first performance. This allows them to demonstrate improvement and develop confidence.

6. Resources and Materials

Sheet Music: Provide sheet music for the selected piece(s), including accompaniment tracks if needed.

Audio/Visual Resources: Audio tracks or videos demonstrating the piece being played with musical expression.

Piano/Keyboard: Each student should have access to a piano or keyboard during the session for both practice and performance.

Performance Checklist: A checklist for students to review before performing, focusing on posture, hand placement, finger technique, and musical expression.

7. Assessment and Evaluation

Formative Assessment:

During the practice and performance phases, the instructor will assess the students' technical execution and musicality. The emphasis will be on how well students integrate the technical skills learned and how effectively they communicate emotion through their playing.

Peer feedback will also be part of the formative assessment, allowing students to assess each other's performances and offer constructive advice.

Summative Assessment:

At the end of the session, students will be evaluated on their final performance, focusing on the execution of both technical aspects and musical expression.

The instructor will provide written feedback for each student, highlighting their strengths and giving suggestions for improvement in future performances.

Instructor Feedback:

Detailed feedback will be provided after each performance, discussing both the technical and musical aspects of the performance.

Students will be encouraged to set goals for continued practice, focusing on areas where they can further improve.

Piano Training Course Based on the Task-Driven Method

1. Objectives

1. To develop students' ability to integrate vocal skills with piano playing, specifically focusing on the ability to accompany themselves while singing.

2. To enhance students' coordination and synchronization between vocal performance and piano playing, improving both technical and musical expression in their combined performances.

2. Content: Chapter 4 - Vocal Skills Demonstration

This chapter aims to help students develop the skill of accompanying themselves while singing, incorporating both their piano playing and vocal techniques. The content focuses on:

Vocal Technique: Proper breathing, tone production, pitch control, and articulation during singing.

Piano Accompaniment: Learning how to play simple chord progressions to accompany a melody, focusing on rhythm, harmony, and coordination.

Coordination: Developing the ability to synchronize vocal delivery with piano playing, ensuring smooth transitions and maintaining both parts in time.

Musical Expression: Combining both skills in a way that is musically expressive, maintaining balance between the vocal line and the accompaniment.

3. Structure

The structure of the course is designed to allow students to progressively build their skills in vocal-piano coordination, starting with basic techniques and advancing to more complex songs:

Introduction: Overview of the chapter’s goals, objectives, and activities. Discuss the challenges of singing while playing the piano and the importance of coordination.

Lecture Presentation: A demonstration of how to sing and play the piano simultaneously, with emphasis on vocal technique, chord progressions, and synchronization.

Task Design and Planning: Students will break the task into manageable parts, focusing first on vocal warm-ups and then on learning simple chord progressions.

Practice Sessions: Students will practice the task of singing and playing simultaneously, receiving real-time feedback.

Reflection and Evaluation: After the practice, students will reflect on their performance and receive feedback on areas such as rhythm, pitch, and overall coordination.

Reinforcement and Refinement: Students will continue to refine their skills by practicing more complex songs and focusing on improving their coordination and expression.

4. Time Allocation (3 Hours)

Introduction and Overview (15 minutes)

Overview of the objectives and challenges of combining piano playing with singing. Discussion of vocal technique and basic chord progressions.

Lecture Presentation (30 minutes)

Instructor demonstrates how to sing and play the piano simultaneously, using simple chord progressions and a basic melody. Emphasis on rhythm and coordination.

Task Design and Planning (30 minutes)

Students will begin learning simple chord progressions and how to sing along. Focus on breaking down the task into manageable segments (vocal warm-ups, chord playing, and melody).

Task Implementation (Practice) (60 minutes)

Students will practice singing and playing together, focusing on smooth transitions between the piano and vocal performance. Instructors will provide real-time feedback.

Reflection and Evaluation (30 minutes)

Students will reflect on their experience, identifying areas for improvement. They will receive feedback on rhythm, pitch, and synchronization from both peers and the instructor.

Reinforcement and Refinement (30 minutes)

Students will apply the feedback and continue practicing, with more complex songs and additional techniques introduced to challenge their abilities.

5. Learning Activities

Step 1: Task Identification

Understanding the Task: The instructor explains that the goal is for students to learn how to sing while playing simple piano chords. The task will challenge their ability to coordinate two different skills (playing and singing) simultaneously.

Identifying Core Skills: Students identify key skills needed to succeed: vocal control (pitch and tone), breathing techniques, and understanding basic chord progressions.

Choosing a Song: Students select a simple, familiar song that has a melody with basic chords to accompany it. This allows them to focus on developing their coordination without the complexity of an advanced song.

Step 2: Task Design and Planning

Vocal Warm-Up: The session starts with a brief vocal warm-up to ensure students are using proper breathing and vocal techniques. The instructor will lead students through simple exercises such as scales, arpeggios, or short vocalizations.

Learning Chords: Students will practice basic chord progressions (e.g., I-IV-V or I-V-vi-IV) in the key of their chosen song. The focus will be on hand position, smooth transitions, and even timing.

Singing the Melody: Students will practice singing the melody of the song separately, focusing on pitch accuracy and expression. The instructor may help with phrasing and articulation.

Combining Both Skills: Students will practice playing the chords and singing the melody together, starting slowly and focusing on synchronization. The instructor will provide tips on how to manage both tasks at once.

Step 3: Task Implementation

Simultaneous Practice: Students will practice singing and playing together. The goal is to smoothly transition between the piano accompaniment and vocal performance, ensuring that the rhythm and phrasing align.

Instructor Feedback: The instructor will observe and provide feedback on areas such as timing, pitch accuracy, and smoothness of transitions. Emphasis will be placed on avoiding common mistakes like losing track of the rhythm or getting out of sync between the two parts.

Peer Observation: Students will also practice in pairs or small groups, where peers can observe and provide feedback, further enhancing their self-awareness and critical listening skills.

Step 4: Reflection and Evaluation

Self-Reflection: After completing their practice, students will reflect on their performance. They will consider questions such as: What challenges did I face in coordinating my singing and playing? Where did I struggle with rhythm or pitch?

Peer and Instructor Feedback: Students will receive feedback from both peers and the instructor. Feedback will focus on areas such as pitch accuracy, rhythm synchronization, and overall expression.

Performance Assessment: The instructor will assess students' performances on both the technical (chords and pitch) and musical (expression, phrasing, dynamics) aspects.

Step 5: Reinforcement and Refinement

Refining the Song: Based on the feedback, students will practice their song again, focusing on the areas for improvement identified during the reflection and evaluation step.

Introducing New Challenges: The instructor may introduce more complex songs or add variations to the existing song (e.g., adding more challenging chord progressions or additional vocal harmonies).

Repetition and Practice: Students will practice the song repeatedly, focusing on the smoothness of their transitions between the piano and vocal parts. Emphasis will be placed on maintaining musicality while focusing on accuracy and timing.

6. Resources and Materials

Sheet Music: Provide sheet music for the selected songs, including chord progressions and vocal melodies.

Piano/Keyboard: Each student should have access to a piano or keyboard to practice.

Audio/Visual Resources: Videos of professional musicians performing the same songs, focusing on both vocal and piano performance to serve as examples.

Vocal Warm-Up Materials: A list of simple vocal warm-up exercises to help students improve their tone and pitch accuracy.

Chord Progression Charts: Charts with basic chord progressions for students to refer to during practice.

7. Assessment and Evaluation

Formative Assessment:

During the practice sessions, instructors will observe students' performances, providing real-time feedback on synchronization, pitch accuracy, and overall musicality.

Peer feedback will also be encouraged, allowing students to evaluate each other’s performances and offer constructive advice.

Summative Assessment:

At the end of the session, students will perform their chosen song (or an advanced version) in front of the class or small groups.

The instructor will assess their performance based on both technical (chords, pitch) and expressive (dynamics, phrasing) elements.

Written or verbal feedback will be provided, including suggestions for improvement and further practice.

Instructor Feedback:

Detailed feedback will be provided to each student on their strengths and areas for improvement.

Students will be encouraged to practice at home and continue refining their skills by focusing on specific challenges identified during the session.

Appendix D
The Results of the Quality Analysis of Research Instruments

Assessment form for the validity of a Piano Training Course Based on the Task-Driven Method

Research Title: The Piano Training Course Based on the Task-Driven Method to Improve Piano Playing Skills for Undergraduate Students

Research Objectives:

1. To Develop of a Piano Training Course Based on the Task-Driven Method to Improve Piano Playing Skills for Undergraduate Students

2. To compare Piano Playing Skills of students before and after implementing the Piano Training Course Based on the Task-Driven Method.

Directions:

Please assess the congruence between components of the Piano Training Course Based on the Task-Driven Method by putting ✔ in the box according to the following criteria.

Rating is +1. There is an opinion that is "Consistent to relevant. "

Rating is 0. There is an opinion that "Not sure it consistent to relevant. "

Rating is -1. There is an opinion that "Inconsistent with relevant. "

No.	Questions	Assessment Results			Suggestion
		+1	0	-1	
1	The teaching content conforms to the learning objectives.				
2	The learning objectives are consistent with the subject matter.				
3	The Learning Processes are related to teaching.				
4	Learning activities are related to the Piano Training Course Based on the Task-Driven Method				
5	Show the actions related to the study subjects.				
6	There are various assessments related with learning objectives.				
7	The measurement and evaluation related with Learning objectives.				

Sign.....Assessor

(.....)

Date...../...../.....

Piano Playing Skills test for Pretest-Posttest

The assessment of piano playing skills will utilize a Structured Rubric to ensure fairness and alignment with the skills developed throughout the course. The total score is 30 points, distributed across 5 main categories, each with a maximum of 6 points, as outlined below:

Category	6 (Excellent)	4-5 (Good)	2-3 (Needs Improvement)	0-1 (Poor)
1. Accuracy of Notes (6 points)	Plays all notes correctly with minimal errors, no major disruptions.	Few errors, but does not disrupt overall musical flow.	Several mistakes that affect performance continuity.	Many incorrect notes, disrupts the performance.
2. Technique (6 points)	Excellent hand position, finger control, articulation, and tone consistency.	Good technique, minor flaws in hand position or articulation.	Inconsistent technique, noticeable issues with finger control.	Poor hand position, lack of control, and weak articulation.
3. Musical Expression (6 points)	Expresses emotion effectively, with clear phrasing, dynamics, and musicality.	Some emotional expression and phrasing, minor inconsistencies.	Limited expression, lacks phrasing and dynamic contrast.	No emotional expression, monotonous playing.
4. Sight-Reading (6 points)	Maintains rhythm, correct notes, and overall fluency while reading new music.	Minor hesitations, mostly accurate notes and rhythm.	Frequent pauses and errors, struggles with rhythm.	Cannot maintain rhythm or play correct notes.
5. Performance Quality (6 points)	Confident stage presence, good posture, well-balanced technique and expression.	Some confidence, minor posture or expression issues.	Hesitant performance, lack of engagement with the music.	Lacks confidence, disengaged performance, poor stage prese

Assessment form for the validity of a Piano Playing Skills

Research Title: The Piano Training Course Based on the Task-Driven Method to Improve Piano Playing Skills for Undergraduate Students

Research Objectives:

1. To Develop of a Piano Training Course Based on the Task-Driven Method to Improve Piano Playing Skills for Undergraduate Students

2. To compare Piano Playing Skills of students before and after implementing the Piano Training Course Based on the Task-Driven Method.

Directions:

Please assess the congruence between components of piano playing skills by putting ✓ in the box according to the following criteria.

Rating is +1. There is an opinion that is "consistent to relevant. "

Rating is 0. There is an opinion that "Not sure it consistent to relevant. "

Rating is -1. There is an opinion that "Inconsistent with relevant. "

No.	Questions	Assessment Results			Suggestion
		+1	0	-1	
1	Spatial consciousness				
2	Formation transition fluency				
3	Degree of cooperation with others				
4	Naturalness of action connection				
5	Overall coordination				

Sign.....Assessor

(.....)

Date...../...../.....

Appendix E
Certificate of English

BANSOMDEJCHAOPRAYA
RAJABHAT UNIVERSITY

This is to certify that

Mr.Chen Chen

Achieved BSRU English Proficiency Test (BSRU-TEP) level

C1

Given on 9th August 2022

(Assistant Professor Dr Kulsirin Aphiratvoradej)

Director

Appendix F
Turnitin Plagiarism Check Report

Chapter 1 Chen Chen

ORIGINALITY REPORT

1%	0%	1%	0%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	Jingyi Feng, Xiaoyu Huang. "The Development and Practice of Artificial Intelligence General Courses Based on Task-driven in Secondary Vocational Schools", 2023 5th International Conference on Computer Science and Technologies in Education (CSTE), 2023 Publication	1%

Exclude quotes	Off	Exclude matches	Off
Exclude bibliography	Off		

Chapter 2 Chen Chen

ORIGINALITY REPORT

2%	2%	0%	0%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	aquariusai.ca Internet Source	1%
2	researchonline.gcu.ac.uk Internet Source	1%

Exclude quotes	Off	Exclude matches	< 1%
Exclude bibliography	Off		

Chapter 3 Chen Chen

ORIGINALITY REPORT

6%	6%	0%	3%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	icer.kku.ac.th Internet Source	2%
2	spucon.spu.ac.th Internet Source	2%
3	www.armyofbadluck.com Internet Source	1%
4	ijlrhss.com Internet Source	1%
5	Submitted to King Mongkut's University of Technology Thonburi Student Paper	1%

Exclude quotes	Off	Exclude matches	< 1%
Exclude bibliography	Off		

Chapter 4 Chen Chen

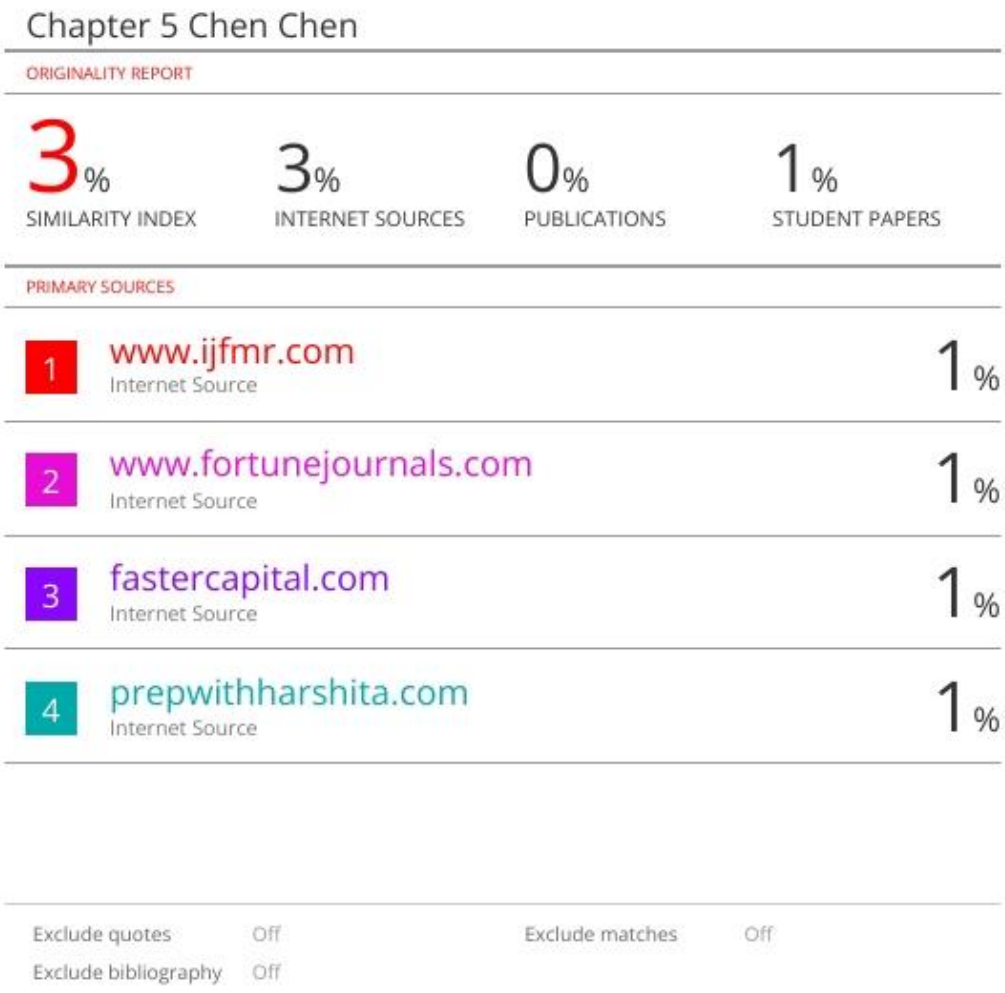
ORIGINALITY REPORT

2%	0%	2%	0%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	Qinghua Zhao. "Exploring the Impact and Innovative Application of Piano Art Instruction in the Context of Deep Learning", Applied Mathematics and Nonlinear Sciences, 2024 Publication	1%
2	"On the Exploration and Practice of Work Study Integration Teaching Reform of 'Mechanical Drawing and Computer Aided Drawing CAD' Course Based on Task Driven and Action Oriented Teaching Method in Technical Colleges", Frontiers in Educational Research, 2021 Publication	1%

Exclude quotes	Off	Exclude matches	< 1%
Exclude bibliography	Off		



Chapter 5 Chen Chen

ORIGINALITY REPORT

3%	3%	0%	1%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	www.ijfmr.com Internet Source	1%
2	www.fortunejournals.com Internet Source	1%
3	fastercapital.com Internet Source	1%
4	prepwithharshita.com Internet Source	1%

Exclude quotes	Off	Exclude matches	Off
Exclude bibliography	Off		

Appendix G

The Document for Accept Research/ Full Paper

SPU
SRIPATUM UNIVERSITY

BANGKHEN
2410/2
PHAHOLYOTHIN RD.,
JATUJAK, BANGKOK
10900
TEL. 0 2579 1111
FAX. 0 2561 1721
www.spu.ac.th

CHONBURI CAMPUS
79 BANGNA TRAD RD.,
KLONGTAMRU, MUANG,
CHONBURI 20000
TEL. 0 3874 3690 9
FAX. 0 3874 3700
www.east.spu.ac.th

KHON KAEN CAMPUS
182/12 MOO 4,
SRICHAN RD.,
NAIMUANG, DISTRICT,
AMPHUR MUANG
KHON KAEN 40000
TEL. 0 4322 4111
FAX. 0 4322 4119
www.khonkaen.spu.ac.th

B.W.MSUP.KKN.035.34/2025

March 1, 2025

Subject: Acceptance of Research Presentation at the 3rd National and International Academic Conference

Dear Chenchen

With reference to your research paper titled **"The development of a piano training course based on the Task-Driven Method to improve piano playing skills for undergraduate students"**, which you have submitted for presentation and publication at the 3rd National and International Academic Conference jointly organized by Sripatum University, Khon Kaen Campus, the Association of Secondary School Administrators of Thailand (ASSAT), and affiliated universities, we are pleased to inform you that your research paper has successfully passed the quality evaluation by the committee of experts.

The review committee has accepted your paper for presentation and publication on Saturday, March 8, 2025. The detailed schedule and presentation program will be provided in due course. Kindly proceed with the registration fee payment via the attached QR Code and confirm your participation by March 5, 2025.

For your information.

Sincerely,

(Associate Professor Dr. Sutham Thammatatsananon)
Deputy Dean, Graduate School of Management
Acting on behalf of the Dean

https://shorturl.asia/uimgk

Graduate School of Management
Sripatum University, Khon Kaen
043-224111,082-3010801
e-mail: med.spukk.spu.ac.th

HUSOED-021

The Development of a Piano Training Course Based on the Task-Driven Method to Improve Piano Playing Skills for Undergraduate Students

Chenchen[1], Phenporn Thongkamsuk[2], Supaporn Srihamee[3]
Department of Curriculum and Instruction
Faculty of Education, Bansomdejchaopraya Rajabhat University, Bangkok 10600, Thailand.
Tel: +66863028450 Email : Jingjingjournal@hotmail.com

Abstract

The purpose of this study is: 1) to Dvelop of a Piano Training Course Based on the Task-Driven Method to Improve Piano Playing Skills, 2) to compare Piano Playing Skills of students before and after implementing the Piano Training Course Based on the Task-Driven Method. The sample group is 30 students enrolled Undergraduate Students in the early childhood program during the first semester of the 2024 academic year at Chongqing Media Vocational College. They were selected through cluster random sampling. The Research Instruments include 1) Piano Training Course Based on the Task-Driven Method and 2) piano playing skills test. The data were statistically analyzed, and the standard deviation and t test were dependent samples.

The Show the results that:

1) Piano Training Course Based on the Task-Driven Method incorporates key elements such as objectives, content, structure, time, learning activities, resources and materials, and assessment and evaluation to method consists of 5 steps: Task Identification, Task Design and Planning, Task Implementation, Reflection and Evaluation, and Reinforcement and Refinement

2) After the Piano Training Course Based on the Task-Driven Method, students' Piano Playing Skills are higher than before the teaching of significant at the level .01($p < .01$)

Keywords: Piano Training Course, Task-Driven Method, Piano Playing Skill

Introduction

The ability to play the piano proficiently is a crucial skill for undergraduate music students, as it not only enhances their overall musicianship but also supports various aspects of music education, performance, and pedagogy (Hallam, 2006). However, traditional piano training methods often emphasize rote learning, technical exercises, and repetitive practice, which may not sufficiently address the cognitive, affective, and psychomotor domains necessary for effective piano performance (Lehmann, Sloboda, & Woody, 2007). In response to these challenges, this study aims to develop a piano training course based on the task-driven method to improve piano playing skills for undergraduate students.

The task-driven method emphasizes learning through meaningful tasks that simulate real-life music performance situations. This approach encourages students to engage with musical pieces contextually, fostering a deeper understanding of rhythm, melody, harmony, and

expression. Through tasks such as collaborative ensemble work, sight-reading challenges, and performance simulations, students develop critical thinking, problem-solving, and adaptive learning skills. The proposed piano training course will be structured around progressively complex tasks that target key piano skills, including finger dexterity, harmonic understanding, and expressive performance. Each task will be accompanied by clear objectives, guidelines, and assessment criteria to ensure that students can monitor their progress and receive constructive feedback (Anderson, Krathwohl, & Bloom, 2001). Additionally, the course will incorporate reflective practices to help students evaluate their learning strategies and identify areas for improvement by integrating the task-driven method into piano training, this research seeks to enhance students' piano playing skills while promoting active, self-directed learning. The findings from this study will contribute to the development of more effective, engaging, and learner-centered piano education practices, ultimately supporting students' academic and professional success in music.

Moreover, research indicates that task-based approaches improve student engagement, autonomy, and skill development in various educational contexts (Willis & Willis, 2007). In music education, tasks designed around real-world applications, such as accompanying a vocalist or preparing for a recital, provide students with contextualized learning experiences that bridge the gap between theory and practice (McPherson & Gabrielsson, 2002). However, many students face difficulties in mastering piano skills due to a variety of challenges. These include insufficient prior musical knowledge, lack of effective practice strategies, performance anxiety, and limited access to personalized feedback (Lehmann et al., 2007). Without proper instructional support and task design, students may struggle to connect theoretical knowledge with practical application, leading to frustration and diminished motivation. Addressing these issues requires a shift from traditional methods to task-driven approaches that cater to diverse learning needs and encourage active, problem-solving engagement. Tasks must be carefully crafted to offer a balance of challenge and support, ensuring that students experience both success and growth throughout their learning journey. Additionally, the integration of reflective practices, such as self-assessment journals and peer feedback sessions, will allow students to monitor their progress and adjust their practice strategies accordingly. This reflective process aligns with the principles of metacognitive learning, which are essential for long-term skill retention and transferability (Anderson, Krathwohl, & Bloom, 2001).

In summary, the development of a piano training course based on the task-driven method offers a promising avenue for enhancing undergraduate students' piano playing skills. By emphasizing meaningful tasks, active engagement, and reflective practices, this study aims to contribute valuable insights to the field of music education.

Research Objective

1. To develop of a Piano Training Course Based on the Task-Driven Method to Improve Piano Playing Skills for Undergraduate Students

2. To compare Piano Playing Skills of students before and after implementing the Piano Training Course Based on the Task-Driven Method.

Research Methodology

1. Population

There are 120 students enrolled Undergraduate Students in the early childhood program during the first semester of the 2024 academic year at Chongqing Media Vocational College.

2. The Sample Group

There are 30 students enrolled Undergraduate Students in the early childhood program during the first semester of the 2024 academic year at Chongqing Media Vocational College. They were selected through cluster random sampling, representing a mix of low, medium, and high abilities.

3. Definitions

Piano Training Course Based on the Task-Driven Method refers to a piano training program designed to develop students' piano playing skills using a learning method that focuses on having students engage in specific tasks or assignments. This method incorporates key elements such as objectives, content, structure, time, learning activities, resources and materials, and assessment and evaluation to ensure an effective and comprehensive learning experience. Each task is designed to be appropriate for the students' level of skills and development, aiming to enhance effective learning and promote problem-solving skills, creative thinking, and the application of skills in real-life situations. The method consists of 5 steps: Task Identification, Task Design and Planning, Task Implementation, Reflection and Evaluation, and Reinforcement and Refinement, as outlined below.

Step 1 Task Identification Clearly define the task or learning objective. This step involves selecting a specific skill or concept to be learned, which will guide the entire learning process and align with the goal of improving students' piano playing skills.

Step 2 Task Design and Planning Design tasks that are relevant, meaningful, and appropriately challenging for the learners. This includes breaking the task down into manageable parts and planning the resources and materials needed, ensuring the tasks are tailored to the students' level of expertise.

Step 3 Task Implementation Students engage with the task, applying their knowledge and skills to complete it. During this phase, instructors provide guidance and support to ensure that students are applying the correct techniques and strategies to improve their piano skills.

Step 4 Reflection and Evaluation After completing the task, students reflect on their learning experience. This step helps them identify what they learned, how they approached the task, and what can be improved. Evaluation can be both self-assessment and instructor feedback, allowing students to gain insights into their progress and areas for improvement in their piano playing.

Step 5 Reinforcement and Refinement Based on feedback, students refine their approach, which encourages continuous improvement. The instructor may give additional challenges or tasks to reinforce the learning process, helping students strengthen their piano skills over time.

Piano Playing Skills refers to the overall proficiency and ability of a pianist to perform and express music effectively on the piano. It encompasses a range of technical, cognitive, and emotional abilities that are crucial for high-quality performance. These skills are evaluated through various components, each contributing to the musician's overall capability. The following key elements are central to the measurement and assessment of piano playing skills:

Accuracy of Notes: The ability to play the correct notes as written in the music, ensuring precision in pitch and timing. It involves the pianist's capacity to play each note clearly and without error, maintaining the integrity of the musical piece. While small imperfections may be tolerated if the overall musical flow is intact, accuracy remains a fundamental aspect of skill evaluation.

Technique: Refers to the physical and mechanical skills required to play the piano effectively. This includes proper hand positioning, finger movement, articulation, tone production, and control over dynamics. Technique also involves coordination between both hands and the ability to maintain rhythmic stability, all of which are crucial for producing a polished, consistent performance.

Musical Expression: The ability to convey emotions and musical intent through playing. This includes shaping phrases with dynamics, articulation, tempo fluctuations, and phrasing sensitivity. Musical expression reflects the performer's capacity to engage the listener by interpreting the music beyond its technical aspects. The ability to inject personal style, creativity, and emotional depth into a performance is a key aspect of this skill.

Sight-Reading: The skill of reading and performing a musical score on the spot, without prior preparation. Sight-reading assesses a pianist's ability to interpret unfamiliar music fluently and accurately. It involves quick recognition of musical patterns, rhythmic structures, and harmonic progressions, as well as the ability to adjust to the flow of the music in real-time.

Performance Quality: This refers to the overall effectiveness of the performance, considering both technical execution and expressive elements. Performance quality is evaluated based on how well the pianist communicates the musical ideas, engages the audience, and presents a cohesive interpretation of the piece. It also encompasses stage presence, confidence, and the ability to perform under pressure.

4. Research Instruments

The research tools used by the researchers include a the development of a piano training course based on the Task-Driven Method and the following assessment criteria for piano playing skills as follows:

4.1 Piano Training Course Based on the Task-Driven Method

1) This teaching plan follows the Task-Driven Method, ensuring that students develop piano-playing skills through structured and appropriately challenging tasks. The course integrates five key steps: Task Identification, Task Design and Planning, Task Implementation, Reflection and Evaluation, and Reinforcement and Refinement. These steps support technical proficiency, musicality, and creative expression while emphasizing ongoing assessment to refine students' skills over time.

2) The course structure aligns with piano education objectives, ensuring progressive skill development. (1) Task Identification – Each chapter starts by identifying the essential piano skills students need to master, such as posture, hand placement, or teaching techniques. (2) Task Design and Planning – Learning activities are planned with appropriate difficulty levels and supported by instructional materials like videos, sheet music, and peer-teaching tools. (3) Task Implementation – Students engage in hands-on exercises, from performing simple scales to teaching peers or integrating piano with singing. (4) Reflection and Evaluation – Students assess their progress through self-reflection and instructor feedback, identifying areas for improvement. and (5) Reinforcement and Refinement – Based on evaluation, students revisit exercises and refine their skills with additional practice and challenges.

3) The course consists of four structured chapters: (1) Lecture Presentation, focusing on fundamental skills like posture and note reading; (2) Skills Demonstration in Teaching, where students practice teaching basic techniques; (3) Piano Skills Demonstration, requiring students to perform a piece with technical precision and musicality; and (4) Vocal Skills Demonstration, where students integrate piano playing with singing. Each chapter follows the five-step process to ensure a structured learning experience.

4) The course integrates theories in piano pedagogy and task-based learning, blending theoretical foundations with practical teaching strategies. The structured learning environment fosters active participation, self-assessment, and instructor feedback. A variety of resources, including visual aids, performance materials, and peer interaction, enhance the learning experience, while ongoing assessments ensure continuous skill improvement.

5) To validate its effectiveness, three experts reviewed the course, assessing its alignment with the Task-Driven Method. The IOC (Index of Consistency) ranged from 0.67 to 1.00, confirming strong consistency. Based on expert feedback, the course was revised and refined to enhance its structure and effectiveness before implementation.

4.2 Piano Playing Skills Test

1) To ensure an accurate evaluation of piano performance, five key criteria were defined: Accuracy of Notes, Technique, Musical Expression, Sight-Reading, and Performance Quality. The test assesses note precision, technical execution, expressive interpretation, sight-reading fluency, and overall performance presentation. Each criterion ensures that pianists are evaluated comprehensively, balancing technical skill with musical artistry.

2) The selection of appropriate music pieces aligns with these criteria. The test includes a simple piece to assess accuracy and technique, a more complex piece to evaluate musical expression, and a short sight-reading excerpt to measure fluency in reading new music. This variety ensures a well-rounded assessment of the pianist's abilities.

3) A structured rubric was developed to guide assessment, with clear scoring guidelines for each criterion. Points are awarded based on accuracy, technical control, expressiveness, sight-reading proficiency, and overall stage presence. The total test score is 30 points, with each of the five criteria contributing 6 points. This structured approach ensures transparency and consistency in evaluation.

4) To verify its effectiveness, the test was reviewed by three experts, assessing alignment with the Task-Driven Method. Using the Index of Consistency (IOC), scores ranged from 0.67 to 1.00, indicating strong validity. The test was refined based on expert feedback to enhance its reliability before implementation.

5) To ensure the reliability of the Piano Playing Skills Test, several methods are employed. Test-retest reliability assesses the stability of the test over time, while Cronbach's Alpha evaluates internal consistency, with a target value of 0.95 These methods collectively ensure that the Piano Playing Skills Test produces accurate, consistent, and dependable results suitable for research purposes.

5. Data Collection

The data collection is as follows:

1. Invite 3 experts, issue official documents of experts of Bansomdejchaopraya Rajabhat University, and provide information on research content and research instruments: Piano Training Course Based on the Task-Driven Method and Piano Playing Skills Test for consideration Index of Objective Consistency (IOC). Collect IOC inspection data from 3 professional experts.

2. This research is experimental research. According to the researcher's established assessment form, the scores were scored before and after the experiment, and the evaluation data were collected. The following is the experimental design:

Table 3.1 Experimental Design by One-Group Pretest-posttest Design

Group	Pretest	Experimental	Posttest
R	O_1	X	O_2

The meaning of the symbols used in the experimental design.

R means Random Sampling

X means experimental piano training course based on the Task-Driven Method

O_1 means Pretest

O_2 means Posttest

Research Results

The data analysis and Results conducted the research in table 1.1 – 1.2 the following order:

3. Analyze quantitative data through descriptive statistics; Mean and standard deviation.

4. Evaluate the students' Piano Playing Skills before and after implementation Piano Training Course Based on the Task-Driven Method. The experimental data are used to analyze the mean and standard deviation and t-test dependent samples statistical.

Table 1.1 Study Results of Piano Playing Skills of students before and after implementing the Piano Training Course Based on the Task-Driven Method.

Number of samples	Before class score (Pre-test) Full score 30 points	After class score (Post-test) Full score 30 points	Differences between scores (D)
1	20	27	7
2	17	26	9
3	14	23	9
4	14	24	10
5	17	26	9
6	15	24	9
7	13	22	9
8	20	27	7
9	16	24	8
10	11	23	12
10	11	23	12
11	11	21	10
12	14	24	10
13	14	23	9
14	11	22	11
15	18	29	11
16	14	26	12
17	11	22	11
18	14	25	11
19	12	21	9
20	18	27	9
21	12	21	9
22	16	26	10
23	11	18	7

Number of samples	Before class score (Pre-test) Full score 30 points	After class score (Post-test) Full score 30 points	Differences between scores (D)
24	17	28	11
25	14	24	10
26	13	24	11
27	11	18	7
28	17	28	11
29	13	23	10
30	16	26	10
Sum	**434**	**722**	**288**
Average score ($\bar{X}$)	**14.47**	**24.07**	**9.60**

The table 1.1 demonstrates the improvement in students' piano playing skills after completing the Piano Training Course Based on the Task-Driven Method. On average, the pre-test score was approximately 14.47, while the post-test score increased to about 24.07. This reflects an average improvement of 9.60 points across all participants. Each student showed progress, with individual improvements ranging from 7 to 12 points. For instance, some students improved by as much as 12 points, while others showed more modest gains of 7 points. Overall, the results clearly indicate that the Piano Training Course Based on the Task-Driven Method has been effective in enhancing the piano skills of all students, as evidenced by the notable increase in test scores.

Table 1.2 Study Results of Comparison of Piano Playing Skills of students before and after implementing the Piano Training Course Based on the Task-Driven Method

Piano Playing Skills	n	Full scores	$\bar{X}$	SD.	t	p
Before class	30	30	14.47	2.70	36.80**	.00
After class	30	30	24.07	2.75		

** Statistically significant at level. 01 ($p < .01$)

It can be seen from Table 1.2 that the average score of piano playing skills of 30 students before the training course was 14.47, while after the course, the average score increased to 24.07. This indicates a significant improvement in students' piano playing skills after completing the Piano Training Course Based on the Task-Driven Method. The standard deviation (SD) before the course was 2.70, and after the course, it was 2.75, showing consistency in score distribution. The t-value of 36.80 and p-value of .00 ($p < .01$) indicate that the improvement is statistically significant at the .01

level. These results confirm that the Piano Training Course Based on the Task-Driven Method effectively enhances students' piano playing skills, aligning with the research hypothesis.

Conclusion

Based on the research theme, the study on improving piano playing skills through the Piano Training Course based on the Task-Driven Method can be summarized as follows. The research findings are divided into two key areas, which align with the research objectives and hypothesis testing:

1. The students' piano playing skills showed significant improvement after completing the piano training course based on the Task-Driven Method. The average pre-test score was 14.47, while the post-test score increased to 24.07, reflecting an average improvement of 9.60 points. Individual progress ranged from 7 to 12 points, with all students demonstrating some level of improvement, indicating the effectiveness of the piano training course based on the Task-Driven in enhancing their skills.

2. The improvement in students' piano playing skills was statistically significant. The pre-course score average was 14.47, and post-course, it increased to 24.07. The standard deviation was consistent before and after the course, at 2.70 and 2.75, respectively. The t-value of 36.80 and p-value of .00 ($p < .01$) confirm the significant improvement at the .01 level, supporting the hypothesis that the piano training course based on the Task-Driven Method effectively enhanced students' skills.

Discussion

Results of this study provide valuable insights into the effectiveness of the piano training course based on the Task-Driven Method in improving students' piano playing skills. With significant improvements observed in both the average scores and individual student progress, the findings highlight the potential of this structured, task-based approach in enhancing musical proficiency. The following discussion will explore the implications of these results.

1. The results of this study demonstrate a significant improvement in students' piano playing skills after completing the piano training course based on the Task-Driven Method (TDM). The average pre-test score was 14.47, while the post-test score increased to 24.07, reflecting an average improvement of 9.60 points. Individual progress ranged from 7 to 12 points, with all students showing some level of improvement. This finding supports the effectiveness of the Task-Driven Method in enhancing students' piano playing skills. Incorporating the findings with existing theories, the improvement observed can be explained through several key educational principles. For instance, Kolb's (1984) experiential learning theory emphasizes the importance of learning through reflection and active engagement in real-world tasks. In this study, the students were actively involved in meaningful piano tasks, such as understanding music theory, developing technical skills, and practicing complex pieces. The results, with improvements in both technical proficiency and musicality, reflect how engaging students in tasks that require them to apply their

knowledge leads to a more effective and comprehensive learning experience. As the students progressed through the course, they were required to engage in reflection, plan their learning, and adjust their methods—critical steps in Kolb's learning cycle. Additionally, Dewey's (1938) perspective on active and participatory learning is evident in the design of this course. Dewey argued that learning is most effective when students interact with their environment and solve problems within a real-world context. The piano training course based on the Task-Driven Method provided students with the opportunity to engage in authentic tasks, such as replicating piano techniques, playing complex pieces, and integrating vocal skills with piano performance. This approach is closely aligned with Dewey's belief that students learn best when they can directly apply their knowledge and skills in practical, hands-on activities. As the study results show, the more engaged students were with these tasks, the more they improved their skills. Furthermore, the study aligns with Vygotsky's (1978) Zone of Proximal Development (ZPD), which posits that students can achieve higher levels of understanding when working in collaboration with peers or instructors. Throughout the course, students engaged in both individual and group activities, with some working more independently while others benefited from collaboration and peer support. The improvement in students' skills indicates that the scaffolding provided by the Task-Driven Method, which includes collaborative problem-solving and ongoing feedback, was key to enhancing their performance. As students reflected on their own and others' performances, they not only received constructive feedback but also contributed to each other's learning, reinforcing Vygotsky's concept of social learning. In Chapter 2: Skills Demonstration in Teaching, students demonstrated their technical abilities by replicating the teacher's movements. This chapter is particularly relevant to Piaget's (1973) constructivist theory, which emphasizes that knowledge is actively constructed through experience. The students, while practicing fundamental techniques like finger placement and rhythm, were building their knowledge through hands-on tasks and active problem-solving. Those who had more experience were able to model and lead discussions, reinforcing the concept that learning is a constructive and dynamic process. The improvement observed, especially among students who initially struggled, shows that when students are given the opportunity to actively apply and refine their knowledge, they develop stronger skills over time. In Chapter 3: Piano Skills Demonstration, students were assigned complex pieces to assess their ability to manage rhythm, expression, and coordination. For some students, the increased complexity of the task was initially overwhelming. However, through ongoing reflection and practice, students showed significant improvement, with their final performances reflecting better technical execution. This aspect of the course supports Johnson & Johnson's (1994) research on task-based learning, which suggests that tasks that simulate real-world scenarios help students bridge the gap between theoretical knowledge and practical application. By engaging in tasks that were progressively more challenging, students not only learned the necessary technical skills but also developed problem-solving abilities that were essential to mastering more complex pieces. Lastly, the integration of vocal skills with piano playing in Chapter 4 reflects Willis's (1996) assertion that tasks should closely resemble real-world challenges to engage students fully. As

students worked on synchronizing their singing with playing, they encountered the challenges of coordination and expression. These challenges mirrored real-world musical performance scenarios, where coordination between different musical elements is key. The improvement in students' ability to combine both skills further supports Deci & Ryan's (1985) motivation theory, which highlights the importance of meaningful and challenging tasks in fostering intrinsic motivation. The students' willingness to engage with these complex tasks and their progress over the course reflect the motivation and sense of accomplishment they gained through task-based learning.

2. The results of this study indicate a statistically significant improvement in students' piano playing skills after completing the Task-Driven Method (TDM) course. The pre-course score average of 14.47 increased to a post-course average of 24.07, reflecting an average improvement of 9.60 points. The consistency in the standard deviation before and after the course (2.70 and 2.75, respectively) further supports the reliability of these results. The t-value of 36.80 and p-value of .00 ($p < 0.01$) confirm that the improvement is statistically significant, supporting the hypothesis that the Task-Driven Method effectively enhanced the students' piano playing skills. This outcome aligns with several key educational theories that emphasize the importance of experiential, task-based learning. As outlined by Kolb (1984), experiential learning enables students to acquire skills through active engagement with real-world tasks. In this study, the students' increased proficiency in piano playing can be attributed to their hands-on learning experiences, where they applied theoretical knowledge to practical scenarios. Dewey (1938) argued that learning is most effective when students are actively engaged in the learning process, rather than passively receiving information. The Task-Driven Method's focus on task identification, design, and implementation provided students with real challenges that required them to practice and apply their skills, leading to significant improvement. This active engagement also aligns with Piaget's (1973) constructivist theory, which asserts that learners actively construct knowledge through experiences. In this context, students built upon their prior knowledge and developed new skills by repeatedly applying their learning in progressively more complex tasks. The consistency in the standard deviation before and after the course suggests that the improvement was evenly distributed across students, which is indicative of the Task-Driven Method's broad applicability and effectiveness in addressing individual learning needs. While all students showed some level of improvement, those with varying starting points in terms of skill proficiency were able to make noticeable gains, further confirming the method's ability to support diverse learners. In line with Johnson & Johnson's (1994) research on task-based learning, which emphasizes the importance of real-world tasks in promoting critical thinking and problem-solving skills, the students in this study demonstrated a marked improvement in both technical proficiency and overall musicality. The task-based approach in the TDM allowed students to connect theoretical concepts with practical application, reinforcing their understanding and skill development. Furthermore, studies on task-driven methods in music education provide additional insights into the effectiveness of the TDM. Smith (2014) emphasized the importance of instructor attentiveness and individualized instruction, noting that students valued personal feedback, although challenges like large class sizes remained.

Similarly, Johnson (2013) found that group piano instruction fostered technical proficiency and collaborative skills, which aligns with the TDM's emphasis on guided practice and peer interactions. These studies reinforce the effectiveness of a structured, supportive environment for enhancing students' piano skills. Additionally, Williams (2023) and Brown (2010) stressed the importance of comprehensive piano education programs for preparing future music educators. Their findings underscore the value of the TDM's task-driven structure, which equips students with both performance and teaching skills by encouraging continuous learning and application. Moreover, Davis (2020) and Miller (2018) highlighted the impact of research-based and task-oriented learning strategies, which significantly improve technical performance and musicianship—key components of the TDM framework. Finally, the p-value of 0.00 ($p < 0.01$) further supports the validity of the results, confirming that the observed improvement is highly significant and not due to chance. This statistical evidence, combined with the theoretical underpinnings of the piano training course based on the Task-Driven Method, provides strong support for the effectiveness of this approach in enhancing students' piano playing skills.

Recommendation

These suggestions aim to optimize the learning process and further support students' skill development.

1. Recommendations Based on This Study

1.1 The study highlights the effectiveness of piano training course based on the Task-Driven Method, but incorporating more individualized instruction could further enhance student performance. Small group sizes or one-on-one sessions would ensure more focused feedback and tailored guidance for each student, addressing their unique learning needs.

1.2 Optimize the benefits of the Task-Driven Method (TDM), it is recommended that students increase their practice time and frequency. Encouraging regular, focused practice sessions would allow students to refine their skills more effectively and achieve greater improvements in their piano proficiency.

1.3 Extending the curriculum to include more complex and advanced tasks could further challenge students and help them develop a higher level of musicianship. Tasks that incorporate various genres, techniques, and performance settings could deepen their understanding and skills.

2. Suggestions for Future Research:

2.1 Future research could investigate the long-term effects of the Task-Driven Method on students' piano proficiency. A follow-up study measuring skill retention and continued improvement after the course would provide valuable insight into the sustainability of the approach over time.

2.2 Include a Larger and More Diverse Sample to enhance the generalizability of the findings, future studies should include a larger and more diverse sample of participants, considering different levels of prior musical experience, cultural backgrounds, and age groups. This

would provide a broader perspective on the effectiveness of the piano training course based on the Task-Driven Method across various populations.

References

Anderson, L. W., Krathwohl, D. R., & Bloom, B. S. (2001). A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives. Longman.

Black, P., & Wiliam, D. (1998). Assessment and classroom learning. Assessment in Education: Principles, Policies, and Practices, 5(1), 7-74. https://doi.org/10.1080/0969595980050102

Bonwell, C. C., & Eison, J. A. (1991). Active learning: Creating excitement in the classroom. ASHE-ERIC Higher Education Report No. 1. ERIC Clearinghouse on Higher Education.

Bransford, J. D., Brown, A. L., & Cocking, R. R. (2000). How people learn: Brain, mind, experience, and school (Expanded edition). National Academy Press.

Brown, J. S., Collins, A., & Duguid, P. (2000). Situated cognition and the culture of learning. Educational researcher, 18(1), 32-42. https://doi.org/10.3102/00346543018001032

Clark, R. C., & Mayer, R. E. (2016). e-Learning and the science of instruction: Proven guidelines for consumers and designers of multimedia learning (4th ed.). Wiley.

Davidson, J. (2004). The Musician's Mind: Teaching, Learning, and Performance in the Age of Cognitive Science. Oxford University Press.

Deci, E. L., & Ryan, R. M. (1985). Intrinsic motivation and self-determination in human behavior. Springer Science & Business Media.

Dewey, J. (1938). Experience and education. Macmillan.

Dörnyei, Z., & Murphey, T. (2003). Group dynamics in the language classroom. Cambridge University Press.

Duffy, T. M., & Cunningham, D. J. (2001). Constructivism: Implications for the design and delivery of instruction. In Handbook of research on educational communications and technology (pp. 170-198). Springer.

Ellis, R. (2003). Task-based language learning and teaching. Oxford University Press.

Ericsson, K. A., Krampe, R. T., & Tesch-Römer, C. (1993). The role of deliberate practice in the acquisition of expert performance. Psychological Review, 100(3), 363–406.

Gagné, R. M. (1985). The conditions of learning and theory of instruction (4th ed.). Holt, Rinehart, and Winston.

Gagné, R. M., Briggs, L. J., & Wager, W. W. (2005). Principles of Instructional Design. Wadsworth.

Hallam, S. (2001). The Power of Music: A Researcher's Perspective. Oxford University Press.

Hallam, S. (2006). Music psychology in education. Institute of Education, University of London.

Hmelo-Silver, C. E. (2004). Problem-based learning: What and how do students learn? Educational Psychology Review, 16(3), 235-266. https://doi.org/10.1023/B:EDPR.0000034022.16470.f3

Johnson, D. W., & Johnson, R. T. (1994). Learning together and alone: Cooperative, competitive, and individualistic learning (4th ed.). Allyn & Bacon.

Knowles, M. S., Holton, E. F., & Swanson, R. A. (2015). The Adult Learner: The Definitive Classic in Adult Education and Human Resource Development (8th ed.). Routledge.

Kolb, D. A. (1984). Experiential Learning: Experience as the Source of Learning and Development. Prentice Hall.

Lehmann, A. C., Sloboda, J. A., & Woody, R. H. (2007). Psychology for musicians: Understanding and acquiring the skills. Oxford University Press.

Littlewood, W. (2004). Task-based teaching in context. Cambridge University Press.

McPherson, G. (2009). The Science and Psychology of Music Performance. Oxford University Press.

McPherson, G. E., & Gabrielsson, A. (2002). From sound to sign. In R. Parncutt & G. E. McPherson (Eds.), The science and psychology of music performance: Creative strategies for teaching and learning (pp. 99–115). Oxford University Press.

Merriam, S. B., & Bierema, L. L. (2014). Adult learning: Linking theory and practice. Wiley.

Pace, R. (1995). A Musician's Guide to Teaching the Piano. GIA Publications.

Piaget, J. (1973). To understand is to invent: The future of education. Grossman Publishers.

Pintrich, P. R. (2003). A motivational science perspective on the role of student motivation in learning and teaching contexts. Journal of Educational Psychology, 95(4), 667-686.

Reigeluth, C. M. (1999). Instructional-Design Theories and Models: A New Paradigm of Instructional Theory (Vol. II). Lawrence Erlbaum Associates.

Richards, J. C., & Rodgers, T. S. (2001). Approaches and methods in language teaching. Cambridge University Press.

Rink, J. (2002). The Practice of Performance: Studies in Musical Interpretation. Cambridge University Press.

Salas, E., Tannenbaum, S. I., Kraiger, K., & Smith-Jentsch, K. A. (2012). The Science of Training and Development in Organizations: What Matters in Practice. Psychological Science in the Public Interest, 13(2), 74–101.

Savery, J. R. (2006). Overview of problem-based learning: Definitions and distinctions. Interdisciplinary Journal of Problem-Based Learning, 1(1), 9-20.

Schön, D. A. (1987). Educating the reflective practitioner: Toward a new design for teaching and learning in the professions. Jossey-Bass.

Sloboda, J. A. (1996). The acquisition of musical performance expertise: Deconstructing the "talent" account of individual differences in musical expressivity. In K. A. Ericsson (Ed.), The road to excellence: The acquisition of expert performance in the arts and sciences, sports, and games (pp. 107–126). Erlbaum.

Swan, M. (2005). Legislation for language learning: Tasks and focus. Oxford University Press.

Swanwick, K. (1999). Teaching music musically. Routledge.

Sweller, J., van Merriënboer, J. J., & Paas, F. (2019). Cognitive architecture and instructional design: 20 years later. Educational Psychology Review, 31(2), 261-292.

Tannenbaum, S. I., & Yukl, G. (1992). Training and Development in Work Organizations. Annual Review of Psychology, 43(1), 399–441.

Van den Branden, K. (2006). Task-based language education: From theory to practice. Cambridge University Press.

Vygotsky, L. S. (1978). Mind in society: The development of higher psychological processes. Harvard University Press.

Willis, J. (1996). A framework for task-based learning. Longman.

Willis, J., & Willis, D. (2007). Doing task-based teaching. Oxford University Press.

Zimmerman, B. J. (2002). Becoming a self-regulated learner: An overview. Theory into Practice, 41(2), 64–70.

Research Profile

Name-Surname: Chen Chen
Birthday: -
Place of Birth: -

Educational Background:

- Master of Program in Curriculum and Instruction, Bansomdejchaopraya Rajabhat University, in 2021

Work Experience:

- Teacher, Chongqing Media Vocational College

Office Location:

- Tongliang, Chongqing, China

Current Contact Location:

-