

# Applying the Flipped Teaching Method in Group Piano Lessons to the First-Year Dance-Studies Undergraduate Students

Xi Chen

School of Music, Shaoguan University, Shaoguan, China

Email: nancy.chan@hotmail.com

**How to cite this paper:** Chen, X. (2023). Applying the Flipped Teaching Method in Group Piano Lessons to the First-Year Dance-Studies Undergraduate Students. *Art and Design Review*, 11, 140-149. <https://doi.org/10.4236/adr.2023.112011>

**Received:** April 6, 2023

**Accepted:** May 27, 2023

**Published:** May 30, 2023

Copyright © 2023 by author(s) and Scientific Research Publishing Inc. This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

<http://creativecommons.org/licenses/by/4.0/>



Open Access

---

## Abstract

The combination of online and offline learning is getting more popular in the study in the undergraduate programme, and it has a great impact on music teaching as well. However, the use of technology in designing group piano lessons is still a relatively new area. The flipped teaching model (FTM) is a useful method in music learning that enable students to preview the content of a musical piece before the class and leaves more time to participate in activities during class time. The research method used in this study is a two-fold approach, including both qualitative and quantitative research. This paper discusses a strategy for applying FTM to first-year undergraduate students in a Chinese university. Before and after-class surveys were used to test students' attitudes toward the teaching method as well as the learning development.

## Keywords

Piano Lesson, Flipped Teaching Method, Music Education

---

## 1. Introduction

Learning to play the piano is a compulsory module for all students (musicology, performance and dance studies) in the Music Department of Shaoguan University (SGU). On the basis of SGU training program, musicology students should complete six semesters of piano study including sonatas, etudes, and other types of musical pieces, whereas dance students only require two semesters. Students who intend to major in dancing, on the other hand, are generally at the primary level of piano playing due to the fact that they have been focusing on dancing

techniques rather than an instrument. Despite this, they are more enthusiastic about learning and willing to practice more often than they expected before teaching them. The two-semester program allows students to gain a basic understanding of finger strength when pressing a key as well as the fundamentals of rhythm, fingering, and pedalling. As part of their study progression, students will be encouraged to improve their musical abilities in order to build on better cognitive abilities.

A total of thirty students were selected and participated in the project in the first semester, in a classroom equipped with two pianos. To be more specific, students were divided into six classes and each class lasted approximately one hour. The first group consisted of 12 students (4 people in each class) who were practicing various pieces, whereas the second group consisted of 18 pupils (6 people in each class) who were practicing the same pieces. This paper aims to demonstrate the piano instructional elements including both pre-class and in-class activities, online video choosing, and course design, and investigate students' attitudes toward learning in different teaching methods by sending them before and after class surveys.

## 2. Literature Review

### 2.1. What Is a Flipped Learning Model?

The flipped learning method, also known as inverted learning, is a part of blended learning model that combines both online and offline (face-to-face) studies (Graham et al., 2013). In this method, the in-class activities and homework are flipped or switched. As an example, students preview course content in advance and engage in class discussions rather than listening to lectures during class and doing homework afterward (Ng et al., 2022). Therefore, the term flipped or inverted learning has become a popular term today.

So how exactly does this work? a journal article The Chronicle of Higher Education explained that by using the internet and other electronic products (for example, the MOOCs or other online courseware programs and computers) to create pre-class contents and set up correlative exercises instead of giving traditional lecture during the time in class (Berrett, 2012). Therefore, unlike traditional piano teaching, flipped lessons concentrate equally on pre-class preparation and in-class activities. This learning method leaves sufficient time for students to understand basic course material in order to prepare before class and build on their own knowledge with experiential learning via in-class activities (Doi, 2016). This flipped learning model has several advantages. Piano learners can manage their own pace when they learn in pre-class sessions, preview their class materials whenever they are available and ready, and replay or repeat many times as they want (Grant, 2013). Similarly, instructors may benefit from the online network when they create course content such as videos, images, and quizzes, to better prepare for the before and in-class teaching material that stimulates student to learn actively (Wang, 2018).

Fulton (2012) summarized the positive aspects of this learning model as follows: 1) This would march students' own beat. 2) Teachers have a better understanding of students' studying type by doing in-class activities or homework in class. 3) Giving better opportunities for instructors to customize different teaching materials for students. 4) Leave flexible time in classroom to study effectively. 5) Teachers can be able to see pupils' accomplishment, instant performance, and their interests. 6) Theoretical studying supports practical learning. 7) Using the "online & offline" teaching method matches the trend of technology learning.

## 2.2. Music Flipped Learning Literature

The method of flipped learning started to appear in academia was 2008 where two researchers illustrate the way to teach in high school science class by using pre-recorded video (Bergmann & Sams, 2008). In recent studies, using flipped model in university music teaching presented in certain academic articles, firstly appeared in 2013 (Doi, 2016). Grant (2013) illustrated the contrasts between flipped music learning and conventional music lecture, and the way of applying flipped learning to tertiary music education. Pros and cons of flipped learning model are considered in Grant's study. He comments "general benefits of the flipped approach including the improved attendances rates, increased student engagement, improved learning outcomes and higher retention rates" while several other researchers found the same results in teaching physics class in their studies (Deslauriers et al., 2011).

Speaking of the piano learning, commonly, it should be practical and unique because all of us will encounter individual difficulties, for instance, students who play the same piece will turn out presenting in different ways eventually because students have different cognition when playing the piano, the only same thing for one piece will be the music score itself. To tackle this issue, it is possible to arrange the contents about music dynamics and composer's background as a pre-class work and focus on the personal questions during the class. Several researchers have pointed out that self-studying before class can better maintain working efficiency than regular lectures (Clark et al., 2005). Wang (2018) indicated that we are facing difficulties to implant related knowledge in fields such as music theory and music appreciation while giving piano lesson, hence piano teachers start to encourage themselves to explore modern ways of piano teaching.

## 2.3. Course Design

In total, eight videos, two pictures and five quizzes were used when teaching. Students were required to watch six videos (the rest two videos were shown in the class as a part of activities) and complete five pre-class quizzes made by the instructor three days before, in order to have a deeper understanding of basic background of the music they play.

Creating and selecting course material

According to Grant (2013), the format of the pre-class material may be various, but most ordinarily will be short videos made by software and then upload online. Piano instructional videos were not peculiarly challenging to find, most of the online teaching materials can be found on YouTube (<https://www.youtube.com/>) while some offline MP4 music can be played in Spotify (Vonderau, 2019). Students can skip any section of the video or even pause, re-watch etc. can help them to figure out what they have learn and better maintain their mind retention (Abeysekera & Dawson, 2015). In this piano instruction, seven videos were found online and only one video was customized. For the piece “little song” by Czerny (see repertoires performed by students), videos were recorded at home performing as an instructional version and sent with the quiz to the group of second team through WeChat (Montag et al., 2018), contents including the time signature of  $\frac{3}{4}$  and the staccato (see Figure 1) in the last two measures etc. were outlined in the instructional video.

Another five pre-delivered videos found online as following:

Clementi: Sonatina in C major, Op. 36 No. 1 (complete)|Cory Hall, pianist-composer ([https://www.youtube.com/watch?v%20=%200\\_Ksi2qmW0A](https://www.youtube.com/watch?v%20=%200_Ksi2qmW0A));

幻想曲「さくらさくら」(平井康三郎)Sakura-Sakura (A Fantasy for Piano) Kozaburo Y. Hirai (<https://www.youtube.com/watch?v%20=%208qwVpticaos>);

Greensleeves—Solo jazz piano, Glen Rose (<https://www.youtube.com/watch?v%20=%20iVuCt8nfXEg>);

Evgeny Kissin—Turkish March—Beethoven—BBC proms (<https://www.youtube.com/watch?v%20=%20bh1fabHCN5g>);

Mozart—Rondo Alla Turca (Marnie Laird, piano) ([https://www.youtube.com/watch?v%20=%20A\\_THdzBnHy0](https://www.youtube.com/watch?v%20=%20A_THdzBnHy0)).

The length of the videos is also important in the flipped teaching, according to Doi (2016), the advised flipped learning video length tends to be over 10 minutes. However, in piano teaching, the length of the video should depend on the type of lectures which the instructor considers presenting, this could be music analytical structure, music appreciation, music theory and so on, and sometimes it depends on the length of the piece that student is currently studying. The videos that I mentioned above are all less than 10 minutes.

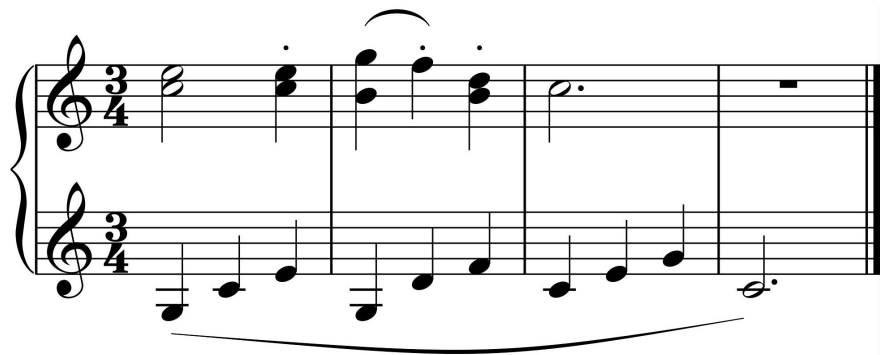


Figure 1. Carl Czerny—The Little Song.

## 2.4. Repertoires Performed by Students

A total of 30 students were selected by the course instructor to complete the flipped model lesson, 12 students held different pieces in the first group and 18 students played the same piece in the second group. Students took these pieces as their final piano examination of the first semester.

First group (4 pieces for 12 students):

- |                                 |                                  |
|---------------------------------|----------------------------------|
| 1) Sonatina Op. 36 No. 1        | Muzio Clementi;                  |
| 2) Sakura                       | Japanese traditional folk music; |
| 3) Greensleeves (piano version) | Traditional English folk song;   |
| 4) Turkish March                | Ludwig van Beethoven.            |

Second group (1 piece for 18 students):

Children's Piano Pieces No. 13. Carl Czerny.

## 2.5. Pre-Class Preparation

Six videos were sent three days before the class, at the same time students were also encouraged to fulfill offline quizzes in a word file. It is insufficient to build up students' comprehension by providing online performance videos only, but the way that can integrate students into a wide-range approach will make the change (Tucker, 2012). To have a better understanding from the video, pre-class quizzes were sent to each student right after receiving the video and the instructor required them to fill the quiz because it need to be collected in two days before commencing of the lesson. The quiz, of course, is related to the video and in-class teaching contents, students are asked to answer mostly two questions in the quiz form. For instance, in terms of the "little song" piece, the instructor wrote two questions in total:

- 1) Try to find two favourite piece of music that you think contains the time signature of  $\frac{3}{4}$ .
- 2) Combine with the instructional video and the music you found, you might think that the  $\frac{3}{4}$  music can be agitated and expressive, which type do you think "little song" is and why?

Furthermore, piano lessons are quite different from other subjects, so students must practice their music continually, in addition to watching pre-class videos and answering quizzes. The purpose of this is to ensure that they are capable of performing well with a better understanding of music in the future. Thus, too much preparation lecture work before class could be stressful for piano students, so keeping it short and interesting will prevent students from becoming disengaged from the course material.

## 2.6. In-Class Activities

The in-class activity aims to give student opportunity to practice in a theoretical way, it leaves students time to exercise what they have discovered in the pre-class session and use it in real-life circumstances (Doi, 2016). It is easier to compre-

hend between theory and real performance by doing work and preparation before class. The classroom develops into a mutual learning place where piano learners are able to follow their pace to organize what is useful to them in a unique style base on their knowledge (Garrison & Vaughan, 2008). The in-class activity can be many, including music pieces comparing, melody line singing, clapping to adjust rhythms, chord analysing, music structure discussing (e.g. sonata form), scale reordering and dynamics performing. Using these techniques as a part of the teaching process may assist learners in improving their technique levels.

For the first group with 12 students in total, they are asked to separate into two groups consisting of two students each. In-class discussion questions include to analyse the music structure and the key changes from C major to G major in Clementi's piece and find out the notes in the Japanese Akebono scale. These challenges aim to stimulate learners' cognition ability and at the same time help them to re-consider and investigate more detail on the piece they play. It is worth to mention the piece "green sleeves", a version of four voices song were distributed to each student and requested to sing together when a student is playing.

For the purpose of warming up the class for the second group, the instructor played three downloaded music pieces in  $\frac{3}{4}$  beat on Spotify in order to raise the question of the dynamics in the melody line for them to discuss. The total number of students in each lesson was 6, so three of them were in a small group. In terms of discussion, students were required to use the piano and try to play legato in the right hand, as well as using different dynamics, and students were eager to try. However, their technique level made it difficult to accomplish what they wanted to sound, so the instructor was obligated to assist them.

## 2.7. Questionnaire

From the perspective of dance studies students, the quantitative part of the study aims to determine how well the flipped learning model fits the group piano instruction. WeChat is used to distribute the questionnaire and the survey platform was provided by Tencent. 25 female students were invited to complete the online survey, all students have completed the before-class and after-class survey, so the complete rate is 100%. The percentage of female students majoring in dance in second grade is 90% in SGU (52 female and 6 male), therefore in this study, the number of male students ( $n = 5$ ) is considerably lower than the female students (see **Sample 1**).

**Sample 1.** Percentage of participants by gender.

Grade	Total	Male	Female	No response
2nd (age 19)	$n = 30$ (%)	$n = 5$ (%)	$n = 25$ (%)	$n = 0$ (%)

### 3. Results

The purpose of the survey is to measure the level of satisfaction and attitude of students regarding flipped learning methods. There are 9 questions for both the before and after class surveys, containing information on students' familiarity with flipped lessons and their preferred methods of instruction. Contrastive analyses were used to compare the results of the two surveys.

Findings from the after-class survey found that students were able to better acquire knowledge taught by the instructor. When students were asked to rate the level of agreement that the flipped teaching method is beneficial to the piano lesson on the 5 Point-Likert scale (5 extremely agree and 1 extremely disagree), 37% of students selected extremely agree and 63% chose to agree while they rated neutral and disagree on before-class survey.

Students' perception of the flipped learning method has changed rapidly in before and after class survey. When asked to choose an answer from "yes", "no" or "I don't know" on "have you heard of/tried flipped learning method before?", 80% of students answered "no" or "I don't know" while only 20% chose "yes". The after-class survey provided a 5-Point Likert scale on "flipped lesson helped me better to understand the class content", 17% students rated extremely agree and 83% students chose to agree. The video/media teaching has the highest ranking as most preferred teaching method and there is no difference found in before and after-class results.

Furthermore, it is worth mentioning that the group discussion gained more attention after the class. Students rated pre-class quiz as their favourite step for flipped learning prior to class, although after-class results indicate that students are more likely to participate in group discussions than pre-class quizzes.

### 4. Discussion

In this study, we aim to improve the effectiveness of teaching beginners. Students in dance studies usually do not have a general understanding of music theory and instrumental study, so the instructor will need to teach them from scratch. However, they have a basic sight-reading ability, which is important to their piano learning.

As a result of applying flipped learning to the piano lesson, students are able to have a good understanding of the background of the composer, the structure of the music of the piece they are currently practicing. Both results indicate that students prefer to study using videos and pictures in class because it gives them a sense of how the piece will sound and how the performer expresses the music. Students never find using media and videos in class to be a boring activity, in fact, the videos capture their attention and help them focus more, which is the most effective means of facilitating their understanding of the content being presented. The group discussion method has achieved the highest level of student preference, as this involves not only talking but also playing on the keyboard. Students who study dance only have a fundamental understanding of key-

board, therefore, they might be reluctant to express their opinions from time to time, so it is worthwhile for them to spend time together and share their opinions while learning how to play the piano.

Providing students with before-class quizzes and videos will enable them to learn whenever they find the time and wherever they are comfortable. This step allows them to review the music that they are about to learn. There will be some preparation required of instructors for class activities and before-class contents, such as designing questions, making videos, and selecting materials. If the questions are difficult to answer, students may lose patience to learn at the beginning. Instead, it is recommended to create intermediate-level questions that relate to the piece. When giving open questions, it is important to remind students that answering from their thoughts is appreciated, but copying words is prohibited. By following this rule, instructors will be able to determine what students think about the piece.

To apply the flipped teaching method, we will be facing some challenges because this method requires more activities in every learning process for the instructors and students. Nevertheless, this method will adapt more quickly to different levels of students who are learning piano, as well as allow them to achieve a higher level of teamwork and problem-solving skills. As another way of saying, the flipped teaching method may not be easy to implement, but it is more likely to engage students and improve the effectiveness of teaching.

## 5. Conclusion

The flipped teaching method has a number of obvious advantages. Firstly, instructors are able to use short videos to enhance students' understanding of a piece, so that they are better prepared before the class. Secondly, the instructor creates different teaching materials based on the student's aptitude, so that teaching can be personalized for each student. Thirdly, it is an effective method of increasing student engagement and enthusiasm.

Because of the large number of undergraduate students in China, each student only has approximately 10 - 15 minutes for class due to the fact that each student must share a 45-minute lesson with other two or three students. The majority of students prefer to browse their phones while waiting for others to finish, however, the flipped teaching method can capture the attention of all students by requiring them to participate in certain in-class activities. Based on the class assignment evaluation and survey results, it is clear that students were able to develop an understanding of instrumental learning and improve their ability to independently study which is beneficial as dancers.

As the present study was conducted near the end of the term at the time when the flipped teaching method was used, the total teaching time was only two hours over two weeks. With a longer period of teaching, more insightful results and conclusions may be obtained. For future studies, longitudinal research may be used to evaluate final examination results by comparing traditional piano instruc-



tion with the flipped teaching method over a period of 16 weeks in order to determine students' attitudes and perspectives with the instructional delivery of different teaching methods.

## Funding

This research was funded by the educational reformation project of Shaoguan University (SYJY20211153).

## Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

## References

- Abeyssekera, L., & Dawson, P. (2015) Motivation and Cognitive Load in the Flipped Classroom: Definition, Rationale and a Call for Research. *Higher Education Research & Development, 34*, 1-14. <https://doi.org/10.1080/07294360.2014.934336>
- Bergmann, J., & Sams, A. (2008). Remixing Chemistry Class. *Learning & Leading with Technology, 36*, 24-27.
- Berrett, D. (2012). *How "Flipping" the Classroom Can Improve the Traditional Lecture*. The Chronicle of Higher Education. <http://chronicle.com/article/How-Flipping-the-Classroom/130857/>
- Clark, R. C., Nguyen, F., & Sweller, J. (2005). *Efficiency in Learning: Evidence-Based Guidelines to Manage Cognitive Load*. Pfeiffer.
- Deslauriers, L., Schelew, E., & Wieman, C. (2011). Improved Learning in a Large-Enrollment Physics Class. *Science, 332*, 862-864. <https://doi.org/10.1126/science.1201783>
- Doi, C. (2016). Applying the Flipped Classroom Methodology in a First-Year Undergraduate Music Research Methods Course. *Music Reference Services Quarterly, 19*, 114-135. <https://doi.org/10.1080/10588167.2016.1167427>
- Fulton, K. (2012). Upside Down and Inside Out: Flip Your Classroom to Improve Student Learning. *Learning & Leading with Technology, 39*, 12-17.
- Garrison, D. R., & Vaughan, H. (2008). *Blended Learning in Higher Education: Framework, Principles, and Guidelines*. Jossey-Bass.
- Graham, C. R., Woodfield, W., & Harrison, J. B. (2013). A Framework for Institutional Adoption and Implementation of Blended Learning in Higher Education. *The Internet and Higher Education, 18*, 4-14. <https://doi.org/10.1016/j.iheduc.2012.09.003>
- Grant, C. (2013). First Inversion: A Rationale for Implementing the "Flipped Approach" in Tertiary Music Courses. *Australian Journal of Music Education, 1*, 3-12.
- Montag, C, Becker, B. & Gan, C. (2018) The Multipurpose Application WeChat: A Review on Recent Research. *Frontiers in Psychology, 9*, Article 2247. <https://doi.org/10.3389/fpsyg.2018.02247>
- Ng, D. T. K., Ng, E. H. L., & Chu, S. K. W. (2022). Engaging Students in Creative Music Making with Musical Instrument Application in an Online Flipped Classroom. *Education and Information Technologies, 27*, 45-64. <https://doi.org/10.1007/s10639-021-10568-2>
- Tucker, B. (2012). The Flipped Classroom: Online Instruction at Home Frees Class Time for Learning. *Education Next, 12*, 82-83.
- Vonderau, P. (2019). The Spotify Effect: Digital Distribution and Financial Growth. *Tele-*

*vision & New Media*, 20, 3-19. <https://doi.org/10.1177/1527476417741200>

Wang, H. (2018). The Application of Flipped Classroom in Colleges and Universities Piano Collective Classes. *Creative Education*, 9, 1021-1026.  
<https://doi.org/10.4236/ce.2018.97075>